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# DE LOS FINES Y PROPÓSITOS DE EDUWEB, REVISTA DE TECNOLOGÍA DE INFORMACIÓN Y COMUNICACIÓN EN EDUCACIÓN

Eduweb, la revista de Tecnología de Información y Comunicación en Educación, es una publicación de carácter nacional e internacional de divulgación del conocimiento, del uso, aplicación y experiencias de las Tecnologías de la Información y Comunicación (TIC) en ambientes educativos. Con la revista se pretende divulgar las innovaciones que en materia de TIC están siendo implementadas y ensayadas en los diferentes niveles y modalidades del sistema educativo venezolano e iberoamericano. De igual manera contribuir a proyectar las experiencias de estudiantes de pre y postgrado, docentes, investigadores y especialistas en TIC en educación en la Universidad de Carabobo y en otras universidades de Venezuela y de otros países de Iberoamérica. Es una revista arbitrada e indexada adscrita al programa de la especialización en Tecnología de la Computación en Educación, de la Facultad de Ciencias de la Educación de la Universidad de Carabobo, registrada bajo el ISSN 1856-7576. Editada en formato impreso y digital.

## Visión

Ser un espacio académico-científico de difusión y divulgación de las distintas tendencias del pensamiento universal ubicadas en el área de TIC en ambientes educativos, con altos niveles de calidad académica.

## Misión

Promover y facilitar la difusión y divulgación de los productos de las investigaciones y experiencias de los docentes e investigadores de la Universidad de Carabobo y otras universidades del país y del mundo en el área de TIC en ambientes educativos; motivar la participación en redes comunes de información y publicación nacional e internacional; coordinar esfuerzos y velar por la calidad de las publicaciones a fin de procurar elevar el nivel académico del personal docente y de investigación mediante el desarrollo de trabajos de investigación como función esencial en su crecimiento académico.

## Objetivos

Servir como órgano de divulgación de las TIC y su influencia en ambientes educativos. Estimular la producción intelectual no solo en los docentes e investigadores de la Universidad de Carabobo, sino también en otros centros de educación e investigación nacional e internacional.

Propiciar el intercambio cultural, académico, científico y tecnológico con otros centros de educación superior en Venezuela y el mundo.

## EDITORIAL

En el mundo, es importante dejar una huella para fomentar el cambio en la humanidad, y por ende promover la paz. **UNESCO**

La Educación centrada en su trascendental eje histórico de humanización enfrenta el reto de asumir un nuevo rol frente a los acelerados cambios que como sociedad experimentamos. Aturdidos todavía por la pandemia llega la inteligencia artificial como el resultado de invención y creatividad para ofrecer al mundo la expectativa del futuro inmediato. Muchas son las discusiones que esto ha generado y que nos pone en un escenario crítico ya que la concepción Bachelardiana ha considerado a través del tiempo que el conocimiento es producto de una actividad del sujeto, ahora bien, debemos sumar en lo inmediato que un programa de computación realiza funciones propias de la mente humana al extremo de responder desde la filosofía una pregunta, por ejemplo, ¿Para que existe el ser humano? Conscientes de que la respuesta es emitida desde las ciencias de la computación resulta asombrosamente fascinante que este conjunto de códigos responda semejante pregunta privilegiando la filosofía y el punto de vista personal, al que por cierto plantea que tal punto de vista tendrá intereses únicos y personales del para qué existe como persona. Estamos frente a un escenario de vivir elevadas experiencias de aprendizaje cuyo desempeño cognitivo exigen del pensamiento crítico la comprensión, análisis y reflexión de emergentes acontecimientos totalmente nuevos para el conocimiento científico y el conocimiento cotidiano; lo que se convierte en un gran tema para docentes y estudiantes. En este sentido, la posibilidad de ofrecer distintas temáticas coadyuva el interés y curiosidad por temas actuales que en la ciencia de la educación recoge en esta ocasión el presente número, cuyo objetivo es la divulgación de interesantes resultados producto de las recientes investigaciones donde el aprendizaje, aula y docente se conjugan en el tiempo presente que estamos viviendo.

A continuación, presentamos de manera sinóptica cuáles son los temas centrales que nos han ocupado en este número. Así tenemos la lectura inicial con el diseño de un Programa psicoeducativo basado en valores para la prevención del abuso sexual infantil el mismo está dirigido a una pequeña población en la República Bolivariana de Venezuela. Encontramos también un interesante Metaanálisis: Ciberviolencia del estudiantado al docente en el contexto de México y que permitió el estudio cuantitativo documental de alcance exploratorio. Así también, presentamos un análisis descriptivo de carácter literario que busca aquello que se esconde detrás de la magia de los cuentos de hadas. Un siguiente trabajo se enfoca en la Formación del pensamiento crítico entre estudiantes ucranianos en el contexto de la integración europea. El siguiente trabajo enfatiza la importancia de potenciar la formación profesional a partir de los Aspectos metodológicos del proyecto de formación de competencias en el proceso de formación profesional del docente de música. Esta investigación se centró en: El papel de la educación superior en el desarrollo de las competencias de los docentes de escuela primaria: Información y entorno educativo, resaltando que, mejorando continuamente la información y el entorno educativo, Ucrania puede nutrir una fuerza laboral docente capacitada y adaptable capaz de satisfacer las demandas de la era moderna. Sigue a este aporte otra interesante investigación titulada: Principios pedagógicos comunes de la enseñanza y desarrollo de las habilidades musicales de los escolares en la estructura educativa, el estudio tuvo como objetivo mejorar las prácticas de educación musical en las escuelas secundarias. La publicación de asegurar el confort psicológico como condición para el desarrollo integral de los niños enfocó su objetivo principal en determinar el papel y las características para asegurar un desarrollo integral y efectivo durante el proceso educativo. Se suma otro objetivo de evaluar la efectividad de las tecnologías de entrenamiento en la capacitación de trabajadores sociales para trabajar con familias que tienen niños con necesidades especiales representado en la titulación Tecnologías de coaching en socionomía autodesarrollo profesional de especialistas en apoyo a familias con niños con necesidades especiales. Esta investigación sobre el papel y el impacto de las tecnologías de la información en el proceso educativo representó sus hallazgos como relevantes para que las autoridades implementen herramientas que influyan en la digitalización de la educación en Ucrania. El abordaje de la competencia escrita permitió profundizar

en: La efectividad del método de traducción gramatical para el aprendizaje del inglés en instituciones de educación superior. A través, del método investigativo de enseñanza en el contexto de la educación a distancia emergió la investigación sobre la necesidad de: Fortalecer la competencia investigadora de estudiantes de carreras técnicas en el contexto de la educación a distancia. Se suma una curiosa investigación sobre la: Eficacia de las estrategias de aprendizaje generativo en el estudio independiente del inglés utilizando tecnologías móviles. Otra investigación, centra su propósito en estudiar los desafíos y la experiencia de adaptación social de los estudiantes internacionales que residen en Ucrania. Por su parte, el concepto de "innovación social", desvela rasgos y características esenciales, incluidas las características de gestión de las mismas Innovaciones en el ámbito educativo en el marco de la mejora del sistema de incentivos al personal, representado en el título: Adaptación de los estudiantes internacionales al entorno educativo de las universidades ucranianas: escuchar las voces de los estudiantes. Otro enfoque de investigación cualitativa utilizó un análisis de la literatura y las prácticas educativas en instituciones especializadas en idiomas para profundizar en el: Desarrollo integrado de la competencia sociocultural alemán a través de la formación de la competencia lingüística en la lectura; los hallazgos resaltan la necesidad de más investigación sobre la selección de contenido, la estructuración de la competencia sociocultural y el desarrollo de herramientas pedagógicas en la enseñanza del idioma alemán a nivel universitario. En secuencia, presentamos el trabajo investigativo: Formación profesional de los futuros trabajadores sociales ante la inestabilidad; cuyos resultados contribuyen al desarrollo de un modelo de educación continua en trabajo social, con foco en el abordaje de las brechas de formación y competencias. En consideración del tema de la competencia profesional y la actividad innovadora de los profesores de educación superior se llevó a cabo la investigación sobre los: Componentes de la competencia y la actividad profesional innovadora de un docente, como corolario de la investigación sus autores infieren que el pensamiento creativo de un docente evoluciona en conjunción lógica con otros componentes, facilitando así el cultivo de su maestría innovadora. En una tónica de previsiones contempladas en la ley podemos consultar el artículo: Indemnización por daño moral a un trabajador sufrido por accidente de trabajo o enfermedad profesional. En la línea contemporánea, se mantiene el abordaje investigativo sobre los: Problemas de los jóvenes escolares ucranianos en el contexto de la migración forzosa: Dimensiones sociológicas. Este estudio analizó las actitudes sociológicas de los escolares ucranianos hacia el entorno educativo, las condiciones de aprendizaje y los problemas actuales de adaptación en los países de residencia temporal. Dada la importancia de los procesos cognitivos en el evento de aprendizaje, el siguiente artículo presenta la: Formación del pensamiento crítico entre estudiantes ucranianos en el contexto de la integración europea, a partir de la premisa comprobada de que uno de los principales problemas para desarrollar habilidades de pensamiento crítico es crear las condiciones pedagógicas adecuadas. En la temática tecnológica resulta interesante leer un trabajo en el que se resaltan las principales características de la educación digital: carácter anticipatorio, calidad, flexibilidad, accesibilidad, creatividad, esto en la investigación titulada: El uso de los recursos digitales en el sistema educativo de países extranjeros. En el marco de la educación superior se presenta el artículo Desarrollo innovador de la institución de educación superior: mecanismos de gestión, en el que sus investigadores, a través de una justificación teórica, muestran la importancia y necesidad de las innovaciones en la gestión de las instituciones de educación superior. Finalmente, se expone el artículo titulado: Aplicación de Tecnologías Digitales en la Actualización de Contenidos de las Ramas Educativas de Educación Primaria cuyo objetivo fue estudiar la posibilidad de actualizar los contenidos de las ramas educativas de la escuela primaria por medio de tecnologías digitales y evaluar su impacto en la motivación y el rendimiento de los estudiantes.

Con esta sinóptica presentación cerramos este Volumen 17 Nro. 3 correspondiente a julio-septiembre 2023. Esperamos disfruten de su lectura, análisis y promoción de aquellos trabajos que incentiven en cada amigable lector el deseo de continuar derribando cualquier obstáculo epistemológico en las experiencias propias de enseñanza y aprendizaje. Resulta, entonces, en semillero de ideas por propagar y crear tan nuevas y originales investigaciones que superen nuestra realidad virtual.

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## Programa psicoeducativo basado en valores para la prevención del abuso sexual infantil

### Psychoeducational program based on values for the prevention of child sexual abuse

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#### Resumen

La presente investigación tuvo como propósito diseñar un programa psicoeducativo basado en valores para la prevención del abuso sexual infantil dirigido a los niños de la Comunidad Lomas de La Entrada, Naguanagua, estado Carabobo. Su fundamentación teórica se centró en la teoría psicosocial de Erick Erickson (1987) la cual expone como se va formando la personalidad de los miembros de una comunidad de un sistema social dentro de un país y en la teoría psicodinámica de Freud, (1939) que explica como el abuso sexual infantil representa un trauma psíquico que manifiesta sus secuelas en las neurosis posteriores (fóbicas, histéricas u obsesivas) de acuerdo a la estructura de personalidad en que se desarrolle la psique de cada infante. Centrada en el paradigma cuantitativo bajo un diseño no experimental transaccional de campo de tipo descriptivo, bajo la modalidad de proyecto factible. La aplicación del instrumento dio como resultado la necesidad de diseñar el programa psicoeducativo basado en valores para la prevención del abuso sexual infantil incorporando los factores protectores en diversas acciones y/o estrategias, para disminuir la incidencia de este problema en la comunidad.

**Palabras clave:** Programa psicoeducativo, valores, prevención, abuso sexual infantil.

#### Abstract

The purpose of this research was to design a psychoeducational program based on values for child sexual abuse prevention aimed at boys and girls from the Lomas de la Entrada Community, in Naguanagua, Carabobo state. Its theoretical bases focused both on the psychosocial theory of Erick Erickson, (1987) which explains the formation of the personality of the members of a community of a social system within a country, as well as on the psychodynamic theory of Freud, (1984) who points out how child sexual abuse represents a psychic trauma that manifests its sequelae in subsequent neuroses (phobic, hysterical or



obsessive) according to the personality structure in which the psyche of each infant develops. This study was engrossed in the quantitative paradigm under a non-experimental transactional descriptive field design, under the feasible project modality. The application of the instrument resulted in the need to design the psychoeducational program based on values for child sexual abuse prevention, incorporating, at the same time, protective factors in various actions and/or strategies, to reduce the incidence of this problem in the community.

**Keywords:** Psychoeducational program, values, prevention, child sexual abuse.

## 1. Introducción

De acuerdo a Erickson, E. (1987) psicoanalista estadounidense de origen alemán destacado por sus contribuciones en la psicología del desarrollo humano, centró su interés en estudiar el comportamiento y progreso del individuo en las diferentes etapas por las que pasa, desde el nacimiento hasta la vejez, señalando que los seres humanos deben tener un desarrollo sano entre la infancia y la edad adulta tardía. En cada período, la persona se enfrenta a nuevos retos y desafíos, esperando que los domine. Además, cada estadio debe ser culminado con éxito para evitar que aparezcan o reaparezcan como problemas en el futuro.

Por ello, es necesario advertir la importancia del desarrollo sexual saludable de niños y niñas y su valor esencial en la prevención del abuso sexual infantil. En este sentido, muchas personas adultas nunca fueron educadas sobre el desarrollo sexual de sus hijos e hijas, lo cual les dificulta saber cuál es la diferencia entre comportamientos sanos y no saludables. En la niñez se aprenden continuamente las normas sociales y lo que es esperado o apropiado en las interacciones y relaciones. Hay expresiones saludables y comunes de la sexualidad que niños y niñas podrían mostrar en diferentes etapas de su proceso.

De aquí que, la familia como la primera organización de socialización, protección, seguridad y red de apoyo más cercana de las personas, es importante que promuevan un ambiente familiar sano donde se brinden los recursos necesarios para un buen desarrollo personal, social y sexual que garanticen el pleno y feliz desenvolvimiento de sus miembros.

En este contexto, la experiencia del abuso sexual infantil (ASI) se implanta como un quiebre en el vínculo de cuidado familiar y, por lo tanto, en el desarrollo sano del niño o de la niña. Cuando esta columna falla en su función mediadora y deja de ser previsible, se interrumpe la continuidad de existencia del sujeto. Esto es semejante a la intromisión de un hecho sexual en la infancia para el cual el niño todavía no cuenta con los procesos de simbolización propios de otras experiencias vitales. (Álvarez, 2005, p.2).

En este sentido, el abuso sexual infantil, ocurre cuando un niño o niña es utilizado para la estimulación sexual de su agresor (un adulto conocido o desconocido, un pariente u otro) o la complacencia de un observador en el contexto de la humillación a la infancia, representa el más grave y difícil acontecimiento en el interior psicoemocional de un niño o adolescente por las consecuencias que lleva. El abuso sexual infantil involucra toda interacción sexual en la que el consentimiento no existe o no puede ser dado, independientemente de si el niño entiende la naturaleza sexual de la actividad e incluso cuando no muestre signos de rechazo. El contacto sexual entre un adolescente o un adulto y un niño o una niña más pequeños también puede ser impropio si hay una significativa disparidad en la edad, el desarrollo, el tamaño o si existe un aprovechamiento intencionado de esas diferencias.

En las funciones cognitivas, emocionales, físicas e, incluso, en el área moral es un acaecimiento espantoso, inhabilitante y paralizante del que es tremendamente difícil escapar. Si bien es cierto que no todas las víctimas están afectadas del mismo modo, existe un consenso generalizado en aceptar que las

consecuencias psicológicas se engloban en una perspectiva que va desde los problemas de ansiedad hasta la depresión y, más específicamente, al Trastorno de estrés postraumático.

Otro autor quien aborda el tema es Finkelhor (1999) y habla desde el modelo traumatogénico del abuso sexual, caracterizado por: sexualidad traumática, pérdida de la confianza relacional, victimización, obesidad y sentido de falta de poder o indefensión. Desde el punto de vista de la etiología y consecuencias del abuso, es todo un paradigma que durante los últimos años ha sido una respuesta convincente y sistemática de los atropellos sexuales a niños y adolescentes la noción de la infancia tiene un carácter histórico y cultural y es por lo que ha tenido diferentes apreciaciones en la realidad, su concepción depende del contexto cultural de la época.

Cabe destacar que, a la concepción de la infancia es necesario darle la importancia y reconocer su carácter de conciencia social, porque ella transita entre agentes socializadores; la familia, como primer agente socializador y la escuela, como segundo agente, ofrece a ella el respeto, cuidado y educación que merece, es por ello que se presenta el gran valor de psicoeducar a la población infantil sobre lo que es el abuso sexual infantil y proponer herramientas para su prevención.

El Abuso Sexual Infantil (ASI) o también conocido como contacto sexual no deseado es un problema multicausal que afecta a diferentes campos o ámbitos de actuación que van desde los estrictamente jurídicos o forenses (dado que es un delito tipificado gravemente en el Código Penal de Venezuela), los de carácter Social (por las consecuencias desde la protección a la infancia), de repercusión en la Salud (es un problema sanitario) y también Educativo (por la necesidad de implementar programas educativos preventivos y rehabilitadores).

En Latinoamérica y el Caribe, estudios recientes, en 2019, apuntan que setenta millones de niños se encuentran en condiciones de pobreza y dos a tres de estos menores de edad padecen de violencia verbal, física y sexual en centros educativos, hogares y comunidades se estima que alrededor de dos millones de niños son explotados sexualmente al año (UNICEF 2019a).

Así mismo en Venezuela, de acuerdo a declaraciones ofrecidas por el fiscal general de la República Bolivariana de Venezuela, Saab, W. (2022) informó que el ministerio público registró 1.024 casos de abuso sexual infantil entre los meses de enero a noviembre para el año 2022, siendo esta cifra alarmante para la población y además señaló que las penas por este delito van entre 25 a 30 años de prisión.

El abuso sexual infantil, trasciende y vulnera la percepción de bienestar físico, psicológico y social del niño afectando su calidad de vida incluso hasta la adultez. Distintas investigaciones ponen de manifiesto que son numerosos los casos que no logran superar esta experiencia, desarrollando consecuencias negativas como: baja autoestima, inseguridad, sumisión, miedo, angustia, ansiedad, depresión, dificultades para intimar, hostilidad, rabia, fallas en el control de los impulsos, adicciones, problemas sexuales, somatizaciones, rasgos psicopáticos, tentativas de suicidio, entre otras que repercuten en diversos ámbitos de la vida del afectado (UNICEF, 2019a)

## 2. Referentes teóricos

El basamento teórico de este trabajo está sustentado en la Teoría Psicosocial de Erik Erickson (1987), quien señala que el desarrollo de la personalidad se da en etapas o fases normativas. Cada una se encuentra precedida de una crisis que marca el cambio de etapa, al final de cada una aparece una polaridad en la cual se pueden dar dos posibilidades: (1) que la etapa culmine con éxito o (2) que se dé un fracaso. De ocurrir lo primero, la etapa es superada, pero si la etapa culmina con un fracaso quedará como un punto de fijación que puede generar conflictos posteriores. También afirma el autor que los niños solo desarrollarán un sentido seguro de identidad si se sienten competentes y valorados ante sus propios ojos

y los de la sociedad, sabiendo que la clave es que sientan que sus necesidades y deseos son compatibles con los de la sociedad personificada por su familia. Existen ocho etapas del ciclo vital o estadios psicosociales a los cuales los seres humanos deben enfrentarse durante su desarrollo teniendo en cuenta que las personas son seres activos buscando adaptarse a su ambiente, las cuales son:

- Etapa sensorio-oral (0-10 meses): Confianza vs. Desconfianza.
- Etapa anal-muscular (10 meses-3 años): Autonomía vs. Vergüenza y duda.
- Etapa genital-locomotor (3-5 años): Iniciativa vs. Culpa
- Etapa de latencia (5-13 años): Laboriosidad vs. Inferioridad: En ese periodo, el niño pasa la mayor parte del tiempo aprendiendo como incorporarse a su entorno de forma productiva, incluyendo el cuidado personal, aquí los menores empiezan su instrucción preescolar y escolar, buscan compartir con otros niños, hacer cosas nuevas o planearlas, son capaces de dominar destrezas aprendiendo a comportarse en el mundo, siendo y sintiéndose útiles para la sociedad. Aprenden reglas, procedimientos y la manera en la cual corregir, encontrar o alcanzar el éxito. La escuela marca un papel importante en este proceso, dado que es aquí donde el niño se ve estimulado a desarrollar actividades y compartir con sus pares, siendo este evento algo importante, pues los niños tienden a compararse y a identificarse con los demás niños.
- Etapa de adolescencia (13-21 años): Identidad vs. Confusión de roles.
- Etapa de adultez-joven (21-40 años): Intimidad vs. Aislamiento.
- Etapa de adultez-media (40-60 años): Generatividad vs. Estancamiento.
- Etapa de adultez-tardía (60 años en adelante): Integridad vs. Desesperación.

Esta teoría es de gran importancia para esta investigación, porque explica como en la etapa de Laboriosidad vs. Inferioridad, (etapa de los niños objeto de este estudio) el niño va construyendo su personalidad en función del entorno, del medio social por lo que la condición familiar y personal del niño es sumamente significativa. En relación con esto, cuando ocurre un abuso sexual infantil es importante tener en cuenta no solamente si existieron lesiones físicas, sino dar principal atención al área psicológica del niño, ya que ante este suceso traumático pueden existir consecuencias a corto plazo y a largo plazo, como pesadillas, problemas del sueño, cambios de hábito en la alimentación, pérdida del control de esfínteres, miedo generalizado, agresividad, conocimiento sexual prematuro e indebido a su edad. Entonces, se podría decir que se da una crisis en esta etapa, antes bien el niño no se incorpora al entorno por sentir temor y miedo a ser lastimado, evitando compartir con otros, mostrándose retraído socialmente, generando un déficit en las habilidades sociales, además, de manifestar bajo rendimiento académico lo que conlleva a experimentar sentimientos de fracaso ante la idea de no poder ser competitivos, llevándole a sentirse inferiores a los demás.

### **Teoría Psicodinámica de Freud, S. (1984)**

Desde el punto de vista de esta teoría, el abuso sexual infantil representa un trauma psíquico que manifiesta sus secuelas en las neurosis posteriores (fóbicas, histéricas u obsesivas) de acuerdo con la estructura de personalidad en que se desarrolle la psique de cada infante. En ese sentido, en el esquema de las series complementarias o la ecuación etiológica de la neurosis como lo planteó Freud (1984), se tiene entonces que el abuso sexual ocuparía el lugar del suceso traumático accidental que, en conjunción con la constitución sexual hereditaria que ofrece las distintas disposiciones de la psique a los eventos del mundo externo y los sucesos infantiles como el Edipo, conforman la génesis de la neurosis y el funcionamiento psíquico. El sentimiento de culpa experimentado por haber sido víctima de abuso se expresa en su relación con el entorno y consigo mismo, pudiendo manifestarse de dos maneras: por medio de la agresividad o la inhibición/sumisión. Las conductas agresivas y autodestructivas como las ideaciones suicidas, la falta de autoestima y el menosprecio hacia sí mismo, el descuido hacia la imagen personal y la tendencia a las conductas seductoras, son parte de las secuelas que el abuso sexual genera en los niños y adolescentes violentados.

Estas conductas son en realidad los síntomas provocados por una angustia extrema que la víctima no está en la capacidad de tramitar. Freud (1984) señala que los síntomas psíquicos o psicógenos:

...con actos nocivos o, por lo menos, inútiles, que el sujeto realiza muchas veces contra toda su voluntad y experimentando sensaciones displacientes o dolorosas. Su daño principal se deriva del esfuerzo psíquico, que primero exige su ejecución y luego lucha contra ellos; esfuerzo que en una amplia formación de síntomas agota la energía psíquica del enfermo y le incapacita para toda otra actividad. (p. 453).

Esta definición hace mención a los síntomas que devienen en las neurosis, en las que el sujeto se enfrenta a un conflicto interno entre los deseos pulsionales que buscan ser satisfechos y el sentimiento inconsciente inapropiado o punitivo que, en última instancia, se manifiestan como sentimientos de culpa que devienen en estados depresivos, dificultades en los procesos de socialización y huidas del hogar, autoagresión que puede incluir consumo de drogas, actos delictivos, rebeldía, rechazo contundente a las figuras de autoridad e ideaciones suicidas, la agresividad generalizada y la erotización de sus relaciones interpersonales a través de la promiscuidad sin ningún tipo de reservas. De acuerdo con la UNICEF, (2016) en un artículo publicado señala:

---dado que en la mayor parte de los casos el delito es cometido por el padre, el padrastro, el abuelo, el hermano, el tío u otro pariente de sexo masculino de la víctima, es decir por una persona que ocupa una posición de confianza dentro del hogar, generalmente se sacrifican los derechos del niño para salvar el buen nombre de la familia y del adulto culpable de la agresión (UNICEF, 2016).

## Los valores universales

Los valores, como productos históricos convertidos en pactos admitidos dentro de la propia vida y que forman parte de ella, la modelan, la limitan y marcan sus posibilidades de desenvolvimiento en cada época y momento y así mismo marcan la cultura de los pueblos ya que estos valores son los que hacen al mundo posible, para lograr el futuro deseado. La antropología actual y todas las corrientes filosóficas modernas se ocupan de la esperanza y salvación de la humanidad de hoy, este hombre que es al que hay que conocer en profundidad para poder educarle, pone su esperanza en la civilización del bienestar, en la ciencia y en la técnica, en el poder individual más que colectivo.

En efecto, esta serie de actividades se conocen como valores humanos y son pautas probadas por la experiencia con las cuales se guían en el mundo todas las culturas que lo habitan, por ende, los valores influyen en nuestra forma de pensar, en nuestros sentimientos y formas de comportarnos. Por ello, Cota (2002), señala que los valores se proyectan a través de actitudes y acciones ante personas y situaciones concretas, suponen un compromiso real y profundo de la persona ante sí misma ante la sociedad en que vive, los valores no existen en abstracto ni de manera absoluta: están ligados a la historia, a las culturas, a los diferentes grupos humanos, a los individuos y a las circunstancias que enfrentan. En nuestra época, podemos identificar valores que son aceptados universalmente, en todo tiempo y lugar, porque posibilitan la existencia de una sociedad más justa y democrática.

Para el autor citado anteriormente, los valores y la moral parecen estar cuestionados, en tal sentido la dinámica social cotidiana es el producto de las tendencias sociales de la época; los individuos manifiestan interpretaciones valorativas y formas de actuación cultural propias del momento histórico que viven. Por ello, quienes están involucrados en la acción educativa deben considerar siempre el contexto sociohistórico en el cual se desenvuelven, atendiendo los sistemas de valores vigentes en la cultura y en la sociedad. Ante el momento de conmoción y la sensación de pesimismo que enfrenta la sociedad actual, el panorama se agrava por el hecho de que el sistema educativo hace énfasis en el componente informativo, con el

consiguiente descuido del aspecto formativo. ¿Qué hacer ante tal situación? Definitivamente no se tiene o quizá no haya una respuesta, al menos no una respuesta simple. Entendida que una crisis de valores no es accidental ni momentánea, sino la consecuencia de acciones y decisiones tomadas generalmente a lo largo de varios años. Una crisis es una importante dislocación de las instituciones, los hábitos, los métodos de vida y los valores.

Pero toda crisis desafía al ser humano a buscar nuevos referentes. Y lo que hoy produce confusión y vacío, la dinámica social se encarga de hacerlo transitorio mediante cambios que conducen a búsquedas diferentes. La inquietud sobre cómo superar la crisis, tiene una respuesta: la capacitación. Desde este campo es posible interrogar y penetrar la realidad cultural para descubrir, comprender e interpretar más cabalmente la dinámica que caracteriza la práctica valorativa sea en la escuela, la familia, la comunidad y, partiendo de tal conocimiento, generar alternativas inspiradas en el impulso del aspecto formativo, es la formación del ser humano lo que permite a la sociedad garantizar el resguardo de sus valores (espirituales, materiales, trascendentales, sociales, políticos, o de cualquier otro dominio).

La importancia de los valores trasciende los dominios de la filosofía e interesa a toda la sociedad, ya que los valores orientan y enrumba el comportamiento individual y colectivo.

Los valores contribuyen a que las personas, las instituciones y las sociedades establezcan metas y fines. En la sociedad contemporánea, se está formando una conciencia ética universal, compatible con la pluralidad de códigos éticos individuales y de credos religiosos, que se expresa a través de nuevos paradigmas: el desarrollo humano sustentable, el respeto integral a los derechos humanos, la igualdad de géneros, el desarrollo social como factor esencial del crecimiento económico y la cultura de paz. En ese sentido, la educación en valores adquiere hoy día mayor relevancia ante la competencia que los sistemas educativos tienen que enfrentar con los antivalores que frecuentemente difunden los medios de comunicación masiva. Cuando se dice que la humanidad vive una crisis de valores, en realidad se refiere al choque de valores, que no solo procede de los medios, sino que puede también tener su origen en la misma familia o en la comunidad.

Enseñar para la vida trascendente es la preocupación de la educación en valores. Educar es enseñar una ética frente a la existencia, es reconocer que con sabiduría se aprenda a bien tener, a bien hacer, a bien vivir y a bien ser, integrándose el concepto de bienestar. Enseñar es crear las condiciones para que quien aprende, pueda desarrollar todo su potencial como ser humano, ayudando a los demás a conocer y comprender, a crecer y a dudar, a recibir y a aportar, a informarse, pero especialmente a desarrollarse como seres humanos. La transmisión de valores también se lleva a cabo de manera informal, mediante la cultura que se desarrolla en la escuela o la universidad, es decir, todo aquello que concurre en la vida escolar y universitaria, no solo la enseñanza académica de una temática ético-valorativa, sino el vivir y llevar a la práctica dichos valores.

### 3. Metodología

La presente investigación se realizó bajo el paradigma cuantitativo que, según Hernández Sampieri, Fernández y Baptista (2011), ofrece la posibilidad de generalizar los resultados más ampliamente otorgando control sobre los fenómenos y un punto de vista de conteo y magnitudes de estos. Asimismo, brinda la gran posibilidad de réplica y un enfoque sobre puntos específicos de tales fenómenos, además que facilita la comparación entre estudios similares. Se ubica en el tipo de investigación proyectivo factible, con apoyo en una investigación diagnóstica de carácter descriptiva, con diseño de campo no experimental transeccional.

Para dar respuesta a esta situación, se diseñó un programa psicoeducativo basado en valores como estrategia para la prevención del abuso sexual infantil dirigido a los niños de la comunidad Lomas de la

Entrada. El instrumento que se utilizó en la presente investigación fue un cuestionario tipo encuesta con dieciocho (18) ítems. Se empleó la escala tipo Likert, por lo cual los reactivos son construidos como cerrados, es decir, con tres alternativas: Siempre (S), Casi siempre (CS) y Nunca (N). Es importante señalar que, construido así el instrumento, las respuestas tienen una ocurrencia al azar, sin embargo, la reacción ante la alternativa tiene una alta probabilidad de ser objetiva, ya que esta es la primera y única condición que se le pide al entrevistado. Cabe resaltar que el instrumento aplicado no da opciones de *verbatim*, solamente de selección.

La validación se realizó a través de juicio de expertos y probada su confiabilidad mediante el estadístico Alfa de Cronbach obteniendo 0,99 por ciento, lo que significa que es muy alta y positiva, por lo tanto, si el mismo instrumento se aplica nuevamente a la misma población, tiene la probabilidad en un 99 por ciento de presentar los mismos resultados. Se aplicó a 20 sujetos de estudio los cuales son niños de la comunidad Lomas de la Entrada quienes dieron su consentimiento para la obtención de los datos. Los objetivos propuestos se cumplieron de acuerdo con las sucesivas fases:

- ❖ Diagnóstico del problema
- ❖ Estudio bibliográfico
- ❖ Redacción del planteamiento de problema
- ❖ Elaboración de: antecedentes, bases teóricas, y fundamentación legal
- ❖ Organización del marco metodológico
- ❖ Diseño del instrumento de recolectar los datos y de la guía
- ❖ Validación del instrumento
- ❖ Consentimiento Informado para la obtención de los datos
- ❖ Aplicación de pruebas piloto
- ❖ Verificación de la Confiabilidad del instrumento
- ❖ Organización de los resultados
- ❖ Análisis y discusión de los resultados
- ❖ Formulación de las conclusiones y recomendaciones
- ❖ Diseño del programa psicoeducativo basado en valores para la prevención del abuso sexual infantil

#### 4. Resultados y discusión

Los datos se presentan a través de tablas estadísticas en donde se describen cuáles fueron las cuantificaciones de las frecuencias absolutas y relativas de las respuestas dadas por los entrevistados que participaron de la muestra a través de un instrumento denominado estudio por encuesta, para la variable independiente, esto se realiza para cada uno de los supuestos a partir de los ítems que lo definen. Posteriormente, cuando se tabularon los datos se construye un gráfico representativo con un diagrama de barras, esto con la finalidad de visualizar y comparar las opiniones emitidas por los encuestados a los planteamientos realizados en los ítems. Es de hacer notar que a cada análisis se le realiza su interpretación, destacando en cada uno de ellos las opiniones que mayor porcentaje obtuvo producto de las opiniones, esto es útil, porque a partir de este razonamiento de los ítems se pueden realizar las comparaciones del esquema teórico con el esquema empírico y extraer las conclusiones validas que den cuenta del estudio realizado.

**Variable:** Programa psicoeducativo basado en valores

**Dimensión:** Programa

**Indicador:** Académico, lúdico, interactivo

Ítems N° 1. Te gustaría que la iglesia implementara un programa para prevenir el abuso sexual infantil

Ítems N° 2. Te gustaría participar en juegos que tengan que ver con la prevención del abuso sexual infantil.

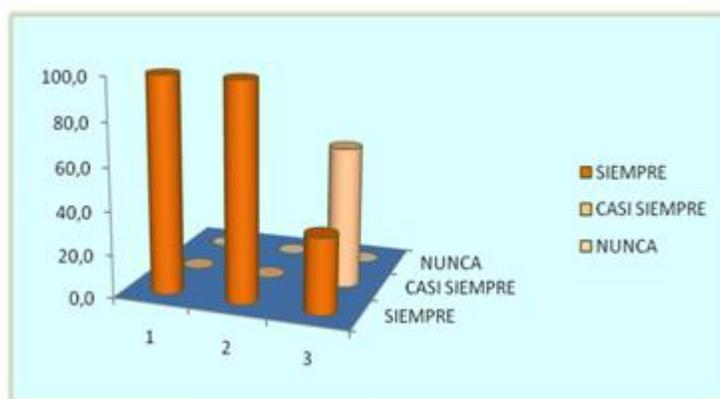
Ítems N° 3. Te gustaría participar en un debate para prevenir el abuso sexual infantil.

**Tabla N°1.**

*Distribución porcentual. Ítems 1, 2 y 3*

Ítems	SIEMPRE		CASI SIEMPRE		NUNCA	
	FA	%	FA	%	FA	%
1	20	100,0	0	0,0	0	0,0
2	20	100,0	0	0,0	0	0,0
3	7	35,0	13	65,0	0	0,0

**Fuente:** Instrumento aplicado a los niños de la Comunidad Lomas de La Entrada. Caso estudio: Iglesia Emanuel el poder y el Milagro. Naguanagua Estado Carabobo.



**Gráfica N°1.** Programa.

Rodríguez, M., & Rodríguez, Y. (2022)

### Interpretación:

**Ítem 1:** De la población encuestada el 100% de los niños dijo que siempre les gustaría que se implementara un programa psicoeducativo para prevenir el abuso sexual infantil, ya que consideran que sería una herramienta de gran ayuda para evitar eventos indeseados.

**Ítem 2:** En el ítem 2, se obtuvo un 100% de respuestas afirmativas, dando como resultado que siempre les gustaría participar en juegos que tengan que ver con la prevención del abuso sexual infantil, teniendo en cuenta que a través del juego los niños pueden aprender más rápido y de una forma divertida.

**Ítem 3:** El 65% de los niños dijeron que casi siempre les gustaría participar en un debate sobre la prevención del abuso sexual infantil, mientras que el otro 35% dijo que siempre les gustaría participar en un debate para prevenir el abuso sexual infantil.

Las respuestas de los niños indicaron que los factores protectores son importantes en la prevención del abuso sexual infantil.

**Variable:** Abuso sexual infantil.

**Dimensión:** Factores protectores.

**Indicadores:** Confianza, tiempo.

Ítems N° 4. Le tienes confianza a las personas extrañas.

Ítems N° 5. A tus padres les gusta que hables con extraños todos los días.

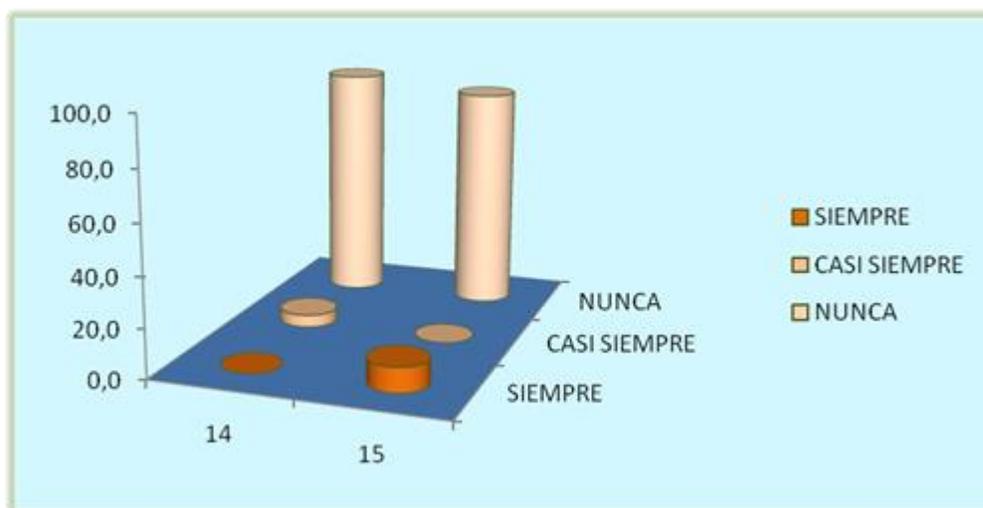
Distribución porcentual. Ítems 4 y 5

**Tabla N° 2.**

*Distribución porcentual. Ítems 4 y 5*

	SIEMPRE		CASI SIEMPRE		NUNCA	
	FA	%	FA	%	FA	%
4	0	0	1	5,0	19	95,0
5	2	10,0	0	0	18	90,0

**Fuente:** Instrumento aplicado a los niños de la Comunidad Lomas de La Entrada. Caso: Iglesia Emanuel el poder y el Milagro. Naguanagua. Estado Carabobo.



**Gráfica N° 2.** Factores protectores.

Rodríguez, M y Rodríguez, Y (2022)

**Interpretación:**

**Ítem 4:** El 95% de la población dijo que nunca les tienen confianza a las personas extrañas, porque sus padres les dicen que las personas suelen engañar a los niños y el 5% restante refirió que casi siempre les tienen confianza a las personas extrañas.

**Ítem 5:** De los niños encuestados un 90% arrojó que nunca a sus padres les gusta que hablen con extraños todos los días, y un 10% expresó que a sus padres siempre les gusta que hablen con extraños. Cabe destacar que la confianza es uno de los factores protectores que se debe desarrollar y cultivar en el seno familiar, (entre niños/niñas y adultos significativos) que le den seguridad y apoyo psicoemocional, dedicándoles tiempo de calidad y realizando tareas o actividades donde todos los miembros de la familia estén involucrados.

Analizando los resultados obtenidos en la aplicación del instrumento a los niños de la comunidad Lomas de la Entrada se desprende que en la población encuestada el 100% de los niños dijo que siempre les gustaría

que se implementara un programa psicoeducativo para prevenir el abuso sexual infantil, ya que consideran que sería una herramienta de gran ayuda para evitar eventos indeseados. En relación a participar en juegos que tengan que ver con la prevención del abuso sexual infantil, el 100% de los encuestados manifestaron que siempre les gustaría participar en juegos que tengan que ver con la prevención del abuso sexual infantil, teniendo en cuenta que a través del juego los niños pueden aprender más rápido y de una forma divertida.

Respecto a participar en un debate para prevenir el abuso sexual infantil el 65% de los niños dijeron que casi siempre les gustaría participar en un debate sobre la prevención del abuso sexual infantil, mientras que el otro 35% dijo que siempre les gustaría participar en un debate para prevenir el abuso sexual infantil. En referencia a los ítems sobre valores y percepción de sus cuerpos el 100% respondió que les gusta que los respeten y se sienten conformes con su cuerpo. Es válido resaltar que la mayoría de los niños presentan una aptitud de aprobación y aceptación hacia la implementación de un programa psicoeducativo para la prevención del abuso sexual infantil. El entorno social que rodea a los niños debe ser de sumo cuidado, pues este podría constituir factores de riesgo que expongan la integridad física, emocional y psicológica de los niños. Se le debe propiciar un ambiente armónico y seguro que garantice su crecimiento sano y libre.

De acuerdo con lo manifestado por los niños en las encuestas aplicadas, se propone como alternativa de solución a la problemática planteada el diseño de un programa psicoeducativo basado en valores para la prevención del abuso sexual infantil dirigido a los niños de la Comunidad Lomas de la Entrada.

## 5. Conclusiones

El diseño, aplicación y evaluación de este programa psicoeducativo preventivo del abuso sexual infantil arrojó que debe adaptarse al contexto específico en el cual se va a desarrollar, por lo cual es de suma importancia conocer las características definidas del grupo con el cual se trabaja, sus intereses y motivaciones. Asimismo, también resulta fundamental que se incluya la visión de los niños, a través de la facilitación de espacios de opinión y reflexión, de manera tal que la acción preventiva resulte un diálogo de comunicación real entre los participantes y no una suerte de monólogo de un experto en una materia con un grupo de observantes. Es relevante señalar que el resultado de los objetivos planteados en este trabajo de investigación se logró de forma satisfactoria, porque los niños que participaron en las actividades sumaron a sus conocimientos nuevos aprendizajes sobre el ASI, que les permitirán fortalecer los factores protectores y evitar los factores de riesgo. Además, esta iniciativa de prevención del abuso sexual infantil no es otra que colocar en un espacio de reflexión los temas asociados a la vulneración de derechos de los niños, propiciando la visibilización de aquellas temáticas vinculadas a este problema, sacándolas del ocultamiento en que se encuentran, condición que por sobre todas las cosas contribuye al origen de este grave flagelo social que constituye el Abuso Sexual Infantil.

La evaluación del programa psicoeducativo basado en valores para la prevención del abuso sexual infantil reflejó que su diseño y aceptación por parte de los niños estuvo centrado en la sencillez y la comunicación de los contenidos. También se harán los ajustes pertinentes para una próxima aplicación en un contexto educativo, comunitario y familiar.

## 6. Recomendaciones

Se recomienda a las personas que trabajan y dedican su esfuerzo y conocimiento a la Prevención del Abuso Sexual Infantil ser cercanos social, emocional y psicológicamente a los niños que han sido víctimas de este flagelo social y fortalecer los factores protectores en ellos y en los niños en general. Se recomienda favorecer espacios de comunicación entre los miembros que integran los escenarios educativos, familiares, sociales y religiosos, con la finalidad de evitar eventos indeseados a los niños.

- ✓ A los niños se les debe creer para que aprendan a decir la verdad.

- ✓ A los niños se les debe respetar cuando hablan para que aprendan a respetar.
- ✓ A los niños se deben proteger y cuidar para que se sientan seguros de sí mismos.
- ✓ A los niños se les debe permitir expresar sus emociones y temores para que aprenda a entender qué le sucede.

Planes de intervención dirigidos al abordaje preventivo en ambientes de riesgos que pueda ser llevado a cabo por familiares, maestros y líderes comunitarios. Campañas de psico-educación dirigidas a la población infantil para que adquieran la capacidad de identificar, denunciar y defenderse ante posibles agresiones.

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# Metaanálisis: Ciberviolencia del estudiantado al docente

## Meta-analysis: Cyberviolence from students to teachers

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### Resumen

El presente trabajo de investigación es cuantitativo documental de alcance exploratorio llevándose a cabo un metaanálisis (MA) de las investigaciones realizadas desde el 2015 al 2021, los filtros de búsqueda utilizados fueron de intervalo específico y disciplina. Su objetivo fue analizar la ciberviolencia dirigida al docente; para ello, se abordan los tipos de ciberviolencia enfrentada, la permanencia del ciberataque efectuado, tácticas y técnicas usadas por los victimarios y cómo la falta de competencia tecnológica los convierte en seres vulnerables. En un primer acercamiento, se rescata la situación en México donde el tema de la ciberviolencia al docente no sea ha estudiado, las investigaciones encontradas en revistas educativas abiertas fueron de carácter internacional, las nacionales se han enfocado al cyberbullying entre el estudiantado y en sus métodos de prevención e intervención escolar. Entre otros resultados se contempla a los victimarios resultando el estudiantado, el padre o madre de familia e inclusive sus mismos compañeros pares del centro de trabajo y la táctica más utilizada es el cyber-baiting.

**Palabras clave:** metaanálisis, ciberviolencia, ciberataque, docente.

### Abstract

This research work is a documentary quantitative with an exploratory scope where a Meta Analysis (MA) of the investigations from 2015 to 2021 was carried out, the search filters used were of a specific interval and discipline. Its objectives were to analyze cyberviolence against teachers; for this, we approach the cyberviolence types they have faced, the cyber attack permanence, tactics and techniques used by the perpetrators and how the lack of technological competence makes them vulnerable beings. In a first approach, was rescued the situation in Mexico where the issue of cyberbullying to the teacher has not been studied, given that all the investigations found, in open educational journals, were of an international nature, the national ones have focused on cyberbullying among students and their methods of prevention and school intervention. Among other results, it is considered the perpetrator as the student, the father or mother of the Family and even so their peers at the workplace and the most used tactic is cyber-baiting.

**Keywords:** meta-analysis, cyberviolence, cyberattack, teacher.

## 1. Introducción

Una de las problemáticas actuales radica en la ciberviolencia al docente, generada a consecuencia del uso de las tecnologías, especialmente, ante la poca o nula competencia de seguridad en entornos virtuales del docente. El estudio es documental de alcance exploratorio descriptivo, se analizan las diferentes pesquisas realizadas durante cinco años, con el fin de elaborar un metaanálisis y con ello pretende ser un vínculo de concientización del peligro enfrentado por el docente en su cotidianidad y de la necesidad de valorar sus competencias tecnológicas para un mejor desempeño de su práctica docente, proteger su integridad y fortalecer la seguridad de sus educandos a fin de prevenir los diferentes tipos de violencia existentes en la Web.

En el marco de las investigaciones internacionales se concentran un total de quince en el tema relacionado a la violencia dirigida al docente, siendo algunas de ellas de España, Finlandia, Indonesia, Estados Unidos y Chile. Por su parte, las investigaciones correspondientes a la ciberviolencia contra los educadores se encontraron solamente ubicadas en las regiones de Estonia, Irlanda, Turquía, Ucrania y la República Checa. De igual manera, la búsqueda del estado de la cuestión a nivel nacional, en cuanto a las investigaciones concernientes a la violencia hacia profesores y maestros, se presentan cuatro correspondientes a Hidalgo, Chihuahua, San Luis Potosí y Guadalajara.

Partiendo de la pregunta ¿Cuáles son las tendencias de las investigaciones correspondientes a la violencia dirigida al docente?, el fin último es analizar la ciberviolencia dirigida al docente; para ello, se abordaron los tipos y la permanencia del ciberataque efectuado, tácticas y técnicas usadas por los victimarios.

Esta investigación se justifica a partir de poder contribuir al diseño de estrategias de formación y capacitación permanente del docente en *Educación para la Ciudadanía y la Paz* en las relaciones diarias de las redes sociales, visualizar la responsabilidad ante la seguridad en las TIC, a modo de un ciudadano digital responsable, capaz de utilizar las redes de manera segura y efectiva en su proceso de enseñanza, transmitiendo en el estudiantado el uso responsable de las mismas.

## 2. Fundamentos

### Violencia Escolar

Se conceptualiza violencia escolar, siguiendo los aportes de Bourdieu y Passeron (1995) para quienes la escuela es un reflejo de la realidad social y la acción de enseñar es violencia simbólica y además está legitimada. Es decir, las personas son reflejos, son construcciones de las interacciones entre ellas y ellos y, por lo tanto, las circunstancias se pueden transmutar, a la violencia escolar. Violencia escolar se considera como cualquier tipo de agresión, dentro de una institución educativa, hacia los diferentes actores que conforman la comunidad escolar (SEP, 2022).

Se entiende entonces por violencia escolar, cualquier tipo de relación agresiva, dirigida a dañar a un individuo o grupo dentro del espacio educativo (Jacinto y Aguirre, 2014). Las manifestaciones de violencia pueden llegar a ser: verbales, físicas, sociales, psicológicas y de género. La violencia escolar ha llegado a la virtualidad, pues a excepción de la física, cualquiera de sus manifestaciones puede ejecutarse desde las redes sociales o páginas Web, utilizando cualquier dispositivo con conexión a Internet. Se destaca también, sus dimensiones direccionales: de alumnado a autoridades, de autoridades a alumnado, docentes-directivos, directivos-docentes, padres de familia – docentes, y docentes-padres de familia.

Otro tipo de violencia escolar corresponde a la violencia simbólica, en este aspecto la víctima carece de conocimiento de la violencia ejercida sobre él o ella, siendo la escuela, el espacio de dominación por excelencia. Bourdieu y Passeron, (1995) encuentran al sistema escolar, necesitado en recurrir a actos poco

aprehensibles, cuyo efecto destacable es la depreciación y la destrucción de formas culturales ajenas y la sumisión de sus portadores. En este tipo de violencia se presenta al dominador y al dominado, siendo inconscientes y en parte cómplices de las acciones de dominación convirtiendo la convivencia escolar en acciones de violencia simbólica.

Enfrentar la violencia escolar es parte de la acción educativa y entre las labores se consideran realizar diagnósticos, capacitar a los agentes escolares, brindar talleres al alumnado y padres de familia, estudiando las experiencias exitosas, implementar regulaciones pedagógicas a partir de la práctica pedagógica de un pensamiento crítico. "La capacidad de una persona de tener pensamiento crítico es muy importante, en cualquier aspecto de su vida, ya que le ayuda a tener un mejor panorama de la situación para poder realizar decisiones correctas" (Mackay et al., 2018, p. 337)

### **Bullying -acoso escolar**

Estudiar bullying o acoso escolar es hacer referencia al Dr. Dan Olweus, psicólogo sueco-noruego, a quien se le considera pionero en las investigaciones sobre bullying, inicia su trabajo a principios de 1970 y es publicado en Noruega en 1973 y en , en Estados Unidos hasta 1978, con el título de "*Aggression in the Shools: Bullies and Whipping Boys*" (Agresión en las escuelas: Niños acosados y flagelados), su trabajo más conocido es el "Programa Olweus para Prevenir el Acoso Escolar", que nace a partir de la muerte y suicidio de tres adolescentes en el Norte de Noruega (Olweus & Limber, 2010).

El bullying entendido como esas conductas agresivas que se ejercen de manera repetida a una persona o grupo de personas con el fin de hacer daño y establecer una relación de control-sumisión, también recibe el nombre de matoneo, intimidación, hostigamiento o acoso escolar (Enríquez & Garzón, 2015). "Es una forma de maltrato, intencionado y perjudicial de un estudiante, o grupo de estudiantes, hacia otro compañero, generalmente más débil, al que convierten en su víctima habitual; suele ser persistente, puede durar semanas, meses e incluso años" (Cerezo, 2018, p.31). Una de las características es el carácter repetitivo, sistemático y sobre todo la intencionalidad de causar daño y perjudicar al más débil, se produce un desequilibrio de fuerzas, una relación de poder asimétrica, la persona expuesta a las acciones negativas tiene dificultad para defenderse, quedando desvalido (Castillo, 2011). "Puede presentarse como agresión física directa o indirecta; verbal, como poner mote, insultar, hacer comentarios racistas, etc.; agresión indirecta o social, como propagar rumores sucios; excluir a alguien del grupo social" (Cerezo, 2018, p. 31).

El objetivo es intimidar, tiranizar, aislar, amenazar, insultar, amedrentar, someter emocionalmente e intelectualmente, en la mayoría de los casos hay desequilibrio de poder entre el agresor y la víctima pudiendo ser real o subjetiva (Merayano, 2013). Se va convirtiendo en una relación de dominio-sumisión por la intimidación llevada a cabo por una persona o grupo de personas hacia otra u otras (Cerezo, 2018). El acoso escolar o bullying tiene como actores y víctimas al propio alumnado, mediante acciones que son reiteradas y que rompen la simetría que debe existir entre las relaciones, generando o favoreciendo los procesos de victimización; puede tomar diferentes formas de maltrato o agresión verbal, físico, social, económico y psicológico (Valadez et al., 2008). La violencia se suele presentar en la escuela cuando no existen reglas, cuando no se respeta a las personas, a las autoridades y a las reglas; cuando no hay confianza, compañerismo ni responsabilidad entre los estudiantes; y cuando no existen condiciones para dialogar y los conflictos no son afrontados (Conde, 2011). De igual manera la falta de información relacionada a este tema por parte del docente, el desconocimiento del cómo actuar, las alarmantes repercusiones de la persona violentada, ocasiona que no se visualice el incremento de ésta, en los centros escolares, pues cada vez son más los sujetos que son víctimas de los maltratos antes mencionados.

## Violencia en la Web

Las definiciones encontradas de ciberbullying parten de conceptos anteriores de bullying, según Smith, Mahdavi, Carvalho, Fisher, Russell y Tippett (2008) con algunas diferenciaciones peculiaridades, el ciberbullying es otra manifestación de bullying y la mayor parte de las ocasiones tienen lugar fuera del área escolar. Por su parte, el Departamento de Niños, Escuelas y Familias del Reino Unido (2007, citado en Challenor, 2019), lo conceptualiza como aquellos materiales en línea, difíciles de controlar, donde no existe vigilancia del tamaño de su audiencia ni del anonimato de los involucrados entre ellos el acosador y cuyo objetivo es dañar a una persona o grupos de personas, logrando irrumpir en el hogar y en el espacio personal.

El ciberbullying o ciberacoso se muestran con agresiones hacia otros mediante publicaciones digitales realizadas a partir de dispositivos electrónicos, con la variante del tiempo, dado que su duración se llega a manifestar desde una semana hasta más de un año. Cabe mencionar que el agresor nunca llega a tener el control de las publicaciones, así como tampoco de la audiencia que la recibe. Se puede decir que el ciberbullying o ciberacoso llega a impactar tanto a la víctima como a sus familiares y en algunos casos a sus amigos cercanos.

De igual manera, el bullying y el ciberbullying, ha llegado a manifestarse en el contexto escolar, espacio considerado como órgano de protección de la persona. En relación a la violencia desde la relación de acoso ejercida por el estudiantado, se consideran desde agresiones verbales habituales hasta chantajes, coacciones, intimidaciones, amenazas físicas, robos y agresiones físicas, utilizada como recurso de poder del alumnado, quien busca restarle autoridad al docente, cuestionando su trabajo y las disposiciones que adopta, con la finalidad de desestabilizar el control en el aula y lograr legitimidad entre sus compañeros (Gómez & Hernández, 2015).

De acuerdo a Kopecký y Szotkowski (2016), los ciberataques más comunes son los realizados con el teléfono móvil inteligente con el objetivo de humillar, insultar, avergonzar y burlarse del docente mediante la difusión de fotografías y videos degradantes y humillantes, la penetración a sus cuentas electrónicas de redes sociales, siendo el fin último, obtener material digital o robar la identidad, extorsión a través de Internet o servicio de telefonía móvil, acoso telefónico y establecimiento de un perfil de falso profesor en una red social. En México, el tema de ciberviolencia se ha trabajado desde el alumnado y los pocos estudios encontrados, dirigidos al docente, son en el aula, siendo la interrupción en el aula y la violencia verbal las agresiones más comunes (Valle-Barbosa et al., 2019).

En cuanto a los tipos de agresiones al docente, éstos son: ciberataque, ciberacoso, ciberbullying, todas ellas mediante el uso de redes sociales Kopecký y Szotkowski (2016, 2017), y Challenor, (2019). Una peculiaridad digna de mencionarse, son los sujetos victimarios; estos estudios indagan sobre niñas y niños de nivel primaria, quienes hacen uso de los medios electrónicos con el objetivo de violentar al docente, aunado a padres de familia. En tal sentido, de acuerdo Kopecký y Szotkowski (2016), a muy temprana edad se utilizan redes sociales y en algunas escuelas no hay reglamento del uso del celular; además, el nivel de prestigio del docente ha decaído, haciéndolo vulnerable frente al padre de familia, quien presenta sus inconformidades de forma agresiva haciendo uso de las redes sociales.

En relación con lo anterior, es pertinente recurrir a las conceptualizaciones de ciberviolencia al docente. Se retoma la de Kopecký y Szotkowski (2016), "en el ciberbullying 'genuino' hay un desequilibrio de poder, debe cumplir con los criterios de repetición, ser a largo plazo y percibido como doloroso. La víctima en el proceso de ciberbullying no puede defenderse de los ataques" (p.2).

En la presente investigación, se requiere una conceptualización objetiva que incluya a la víctima, en este caso al docente víctima del estudiantado quien posee mayor conocimiento tecnológico y medios

electrónicos, usados a razón de sus ciberataques, proponiéndose la siguiente: El ciberbullying o ciberacoso hacia el docente por parte del estudiantado, son aquellos sucesos agresivos, directos o indirectos, incluyendo comportamientos percibidos como intimidación; realizados de manera constante y repetitiva por un estudiante, grupos de estudiantes, por familiares o amigos de uno o más estudiantes y son dirigidos a un docente o grupos de docentes quienes pueden o no conocer al o los ciber-atacantes, el objetivo del ciberataque es extorsionar, denigrar y/o dañar a la o las víctimas. Son realizados mediante diversos tipos de dispositivos electrónicos, siendo la Web su herramienta principal para dar a conocer el material cualquier tipo de páginas Web o de preferencia redes sociales, aplicaciones de mensajería, correos electrónicos, utilizando diversos formatos digitales: audio, texto, imagen, foto, animaciones, video con la pretensión de causar daño físico, psicológico, emocional, familiar, profesional y/o económico. Se identifica por un desequilibrio de poder: el estudiante o grupo de estudiantes victimarios se encuentran sobre el profesional de la educación, vulnerando así su autoridad dentro y fuera del contexto educativo.

### 3. Metodología

#### Participantes

El presente estudio se considera de investigación documental, "los datos (cualitativos o cuantitativos) son extraídos de documentos (fuentes documentales)" (Corral, Corral & Franco, 2019, p. 23), es decir, aborda la problemática con base en datos aportados por los documentos de apoyo.

#### Método

Es un estudio cuantitativo documental de alcance exploratorio descriptivo. Asimismo, es descriptivo cuantitativo por ser un problema de estudio delimitado y concreto, aunque en evolución, y es necesario medir y estimar magnitudes, tendencias y patrones sin manipular variables (Corral, Corral & Franco, 2019; Hernández, Fernández & Baptista, 2014). De igual manera, al ser un tema poco estudiado, se considera un primer acercamiento de alcance exploratorio. En México, particularmente, no se tiene evidencias de informes de investigación en esta línea temática. A partir de Hernández, Fernández y Baptista, (2014) se debe considerar la necesidad de conocer a profundidad y obtener información actual, para investigaciones futuras.

#### Procedimiento

En un primer momento, se partió del concepto *circulación mediática de conocimientos*, cuya noción abarca la transmisión, de transferencia o de intercambio, permitiendo subrayar la diversidad de procesos, redes y filtros de los conocimientos (Moity-Maizi, 2011), es entendido bajo el concepto del proceso de producción del conocimiento científico desde la recepción del documento para su publicación, pasando por una determinada difusión mediática hasta lograr su reconstrucción. Con base en lo anterior, la estrategia de indagación se constituyó en el siguiente procedimiento:

Posteriormente se estableció la búsqueda y recolección de los documentos a partir de bases de datos de acceso abierto y libre, similar y posicionado en el ámbito académico y científico, siendo estas CONRICyT, SciELO, Redalyc, Iresie, Dialnet y Reserchgate. Se construyó una matriz analítica en Excel-Solver (Microsoft, 2020), con información cualitativa, donde se registraba el nombre de los autores, el título, año de publicación, portal de investigación y la ficha de referencia APA 7ª edición. De igual manera, se incorporaron las siguientes preguntas: ¿Qué hicieron?, ¿Cómo lo hicieron? y aportes personales.

En una segunda matriz de Excel-Solver (Microsoft, 2020) se capturó la evaluación hecha a cada investigación encontrada retomando la escala de Likert de cuatro niveles, teniendo el propósito del registro y calificación de artículos de Colín (2007, citado en García, 2016). Se continuó con una meta búsqueda

mediante el Google Académico, posteriormente se compararon resultados mediante las bases de datos. Durante estas dos etapas se utilizaron los términos "ciberviolencia al docente", "ciberviolencia hacia el docente", "ciberbullyng al docente" "ciberbullyng hacia al docente", "violencia al docente", "violencia hacia el docente", "violencia contra el docente"; posteriormente se realizó en inglés con las siguientes frases: "cyberviolence againts teacher", "cyberviolence to the teacher", "teachers cyberbullied by students" "violence againts teacher", "violence to the teacher" y "teachers bullied by students". Con el objetivo de especificar aún más, se agregaron restricciones, delimitando a términos en el título del documento y tipos de archivo Adobe Acrobat PDF y páginas cuyo uso no requiera de licencias. En relación a la base de datos se agregó la palabra *AND*, utilizada como operador boleano, dando como resultado de lo anterior "violencia docente" AND *Internet*.

En un tercer momento, se realizaron revisiones sistemáticas (RSs) y de metaanálisis (MA) se localizaron, seleccionaron y valoraron críticamente las investigaciones. Las RSs y de MAs constituyen una metodología de investigación con el objetivo de acumular de forma sistemática y objetiva, las evidencias obtenidas en los estudios empíricos sobre un mismo problema (Sánchez-Meca, y Botella, 2010). Teniendo como meta valorar las investigaciones encontradas y proporcionar viabilidad en el estudio, se utilizó la metodología metaanálisis, realizada mediante el Modelo Estructural de factores críticos, permitiendo un "análisis factorial exploratorio y un análisis factorial confirmatorio logrando evaluar la validez del constructo" (García, 2016, p. 73). Posterior al metaanálisis los resultados fueron sometidos al software estadístico Minitab (2020), las investigaciones sometidas al tratamiento estadístico fueron un total de 35 investigaciones sobre violencia y ciberviolencia dirigida al docente, elaboradas entre el 2015 y el 2021.

#### 4. Resultados

A fin conocer a profundidad el fenómeno de la ciberviolencia dirigida al docente, una matriz analítica elaborada en Excel-Solver (Microsoft, 2020) incluye (Tabla 1) datos con nombre de los autores, título, año, lugar, objetivos, metodología, portal donde se obtuvo la información y aportes personales; obteniendo información concreta del tema de investigación, incluyendo los diferentes países que han abordado el tema de la violencia hacia el docente y características de los ataques. Otra de las matrices (Tabla 2) analíticas elaboradas fue la de evaluación de los recursos de investigación, misma permitiendo someter a cada documento encontrado a una revisión exhaustiva del contenido. En cuanto a la realización del metaanálisis se consideró la utilización de la escala de Likert de cuatro niveles y 13 preguntas para el registro y calificación de artículos elaborado por Colín (2007, citado en García, 2016). De cada documento se obtuvo un puntaje total, un promedio, una calificación; sirviendo de base en la valorización de su pertinencia. Una revisión de la literatura revela el éxito del proyecto si reúne las especificaciones de rendimiento técnico (García, 2016). El ejercicio permitió evaluar cada documento a fin de dar validez al contenido y sustento a la investigación.

**Tabla 1.**  
*Datos generales de investigaciones*

No.	¿Qué hicieron?	Cómo lo hicieron?	A qué resultados llegaron?	Aporte personal	Referencia en APA	Portal de Investigación	URL
1	Diseñar, validar, comparar el al	Inicialmente se llevó a cabo una encuesta	Los docentes consideran que las diferencias individuales	En esta investigación se analizaron las tasas de	Becerra, M. (2015). <i>Ch</i>	Researchgate	<a href="https://saber.uca.edu.co/handle/document/1118">https://saber.uca.edu.co/handle/document/1118</a>
2	Conocer la disp	Usaron escalas par	Los maestros fueron victi	Las diferencias individuales	Köiv, K. (2015). <i>Ch</i>	Elsevier	<a href="https://doi.org/10.1016/j.chb.2015.08.031">https://doi.org/10.1016/j.chb.2015.08.031</a>
3	Analizar la prev	Metodología cuan	El 21.73% (1118 de 5136) de l	es necesario pre	Köiv, K. (2016). <i>Virt</i>	Researchgate	<a href="https://www.researchgate.net/publication/306111812">https://www.researchgate.net/publication/306111812</a>
4	Entender la natu	Investigación cualit	La violencia contra los docentes, revela que	Desde la persp	Kopecný, K. y Szot	Researchgate	<a href="https://www.researchgate.net/publication/306111812">https://www.researchgate.net/publication/306111812</a>
5	Analizar el impac	En la investigación	La investigación, se centró	Para los autores	Rhona, C. (2016). <i>T</i>	University of West India	<a href="https://files.eric.ed.gov/fulltext/ED521118.pdf">https://files.eric.ed.gov/fulltext/ED521118.pdf</a>
6	Analizar las caus	A partir de una met	La competencia docente e	En esta perspect	Kopecný, K. y Szot	EFIC	<a href="https://www.efic.org/">https://www.efic.org/</a>
7	Comprender los	A partir de estudio	Como uno de los hallazgos	Para este autor l	Sukjadi D; Malihaf	Researchgate	<a href="https://www.researchgate.net/publication/306111812">https://www.researchgate.net/publication/306111812</a>
8	Problematicar la	Desde una persp	Pensar una educación únic	Los profesores d	Paredes, A. (2017). <i>Un</i>	Universidad Academia	<a href="http://biblioteca.uca.edu.co/handle/document/1118">http://biblioteca.uca.edu.co/handle/document/1118</a>
9	Determinar la fre	Retomaron una mu	Los resultados de la invest	Esta investigaci	Foladori A. y Silva	Revista Mexicana de C	<a href="http://www.revista.uca.edu.co/handle/document/1118">http://www.revista.uca.edu.co/handle/document/1118</a>
10	Determinar la prev	La muestra de profes	Los resultados de la invest	En esta investig	Juni, P., Pavlovi, T	Researchgate	<a href="https://www.researchgate.net/publication/306111812">https://www.researchgate.net/publication/306111812</a>
11	es un plan siste	utilizando una mues	la investigación encontró q	En esta investig	Woudstra, Janse v	Researchgate	<a href="https://files.eric.ed.gov/fulltext/ED521118.pdf">https://files.eric.ed.gov/fulltext/ED521118.pdf</a>
12	es avanzar en la	Realizaron una revi	Aunque El número de estud	Los sistemas mu	Moon, B. y McClu	Taylor & Francis Online	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
13	En este estudio	En colaboración cd	Los resultados indicaron q	La violencia perp	Reddy, L. A., Espel	Elsevier	<a href="https://doi.org/10.1016/j.chb.2015.08.031">https://doi.org/10.1016/j.chb.2015.08.031</a>
14	Conocer el uso	Es un estudio cuan	Las plataformas de redes s	Esta investigaci	Anderman, E. M., B	SpringerLink	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
15	El propósito de	La muestra del estu	El 34 de los maestros de l	El ciberacoso qu	Challenor, L. (2019)	Researchgate	<a href="http://doras.dcu.ie/handle/2003/10111">http://doras.dcu.ie/handle/2003/10111</a>
16	Examinar la prev	Se realizó un estudi	Los resultados muestran u	Este estudio repr	Küçükşüleymanoğlu	Researchgate	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
17	Analizar y descri	Estudio cuantitati	Parece incongruente que e	Una interpretación	Longobardi, C., Ba	Semanticscholar	<a href="https://www.semanticscholar.org/paper/Analizar-y-describir-estudio-cuantitativo-Parece-incongruente-que-e/Longobardi-C-Ba/1118">https://www.semanticscholar.org/paper/Analizar-y-describir-estudio-cuantitativo-Parece-incongruente-que-e/Longobardi-C-Ba/1118</a>
18	En este estudio	Se recopilaron dat	Los resultados indicaron q	La violencia perp	FETE-UGT, C. E. F	Generalitat Valenciana	<a href="https://salud.gva.es/revista/2017/01/01/1118">https://salud.gva.es/revista/2017/01/01/1118</a>
19	Examinar por pr	Seiscientos ochent	Los hallazgos revelan el pa	la enseñanza es u	Berlanda, S., Fraiz	Researchgate	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
20	brecha examina	Se realizaron encue	Los resultados mostraron	Esta investigaci	Sorrentino, A., y F	ERIC	<a href="https://eric.ed.gov/?id=ED521118">https://eric.ed.gov/?id=ED521118</a>
21	se contactó a 9	Se administró un cu	Para medir los niveles perc	La mala conduct	Payne, A. A., y Got	Wiley Online	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
22	Analizar las reco	La muestra incluyó	Temas relacionados con la	En esta investiga	De Cordova, F., B	Frontier in Psychology	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
23	la relación entre	utilizando datos lon	utilizando datos longitudina	Esta investigaci	McMahon, S. D., F	Researchgate	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
24	comprender el	Esta investigación	Identificamos antecedente	Se destaca la pre	Moon, B., Saw, G.	Taylor & Francis Online	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
25	Analiza el probl	La encuesta fue se	En general, más de un terci	Si bien este tema	McMahon, S. D., F	Wiley Online	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
26	Este estudio inv	Este estudio de inv	Se examinaron las categor	De acuerdo a est	Ruda, N., y Kuzmin	Researchgate	<a href="http://mda.uca.edu.co/handle/document/1118">http://mda.uca.edu.co/handle/document/1118</a>
27	El trabajo busca	Se utiliza informac	Un resultado para analizar e	En esta investiga	Lowe, E., Picknoll,	IER	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
28	Comprender el	Mediante una encue	Aproximadamente un terci	El estudio actual	Plassa, W., Pasch	SciELO	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
29	Describir exper	se examinaron las r	Los resultados revelan que e	Este estudio dest	Qiao, B., y Patter	Researchgate	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>
30	a presente inves	Para abordar las lin	Los hallazgos indican que e	la violencia contr	McMahon, S. D., F	Academia.edu	<a href="https://www.academia.edu/1118">https://www.academia.edu/1118</a>
31	Conocer de qué	El método utilizado	Se encuentra que hay cond	En esta investiga	Moon, B., Morash	Researchgate	<a href="https://www.researchgate.net/publication/306111812">https://www.researchgate.net/publication/306111812</a>
32	La analizar la co	Es una investigaci	Entre los hallazgos se reve	La violencia pued	Rico, M. (2015). <i>El</i>	COMIE	<a href="http://www.comie.org.co/handle/document/1118">http://www.comie.org.co/handle/document/1118</a>
33	Comprender la	La metodología uti	Con relación a la pregunta	Para este estudi	Gómez, A., y Hern	Xplora	<a href="http://200.231.111.111/handle/document/1118">http://200.231.111.111/handle/document/1118</a>
34	Identificar la pre	El presente estudio	La muestra 47 hombres y 5	En esta investiga	Torres, A. (2017). <i>C</i>	COMIE	<a href="http://www.comie.org.co/handle/document/1118">http://www.comie.org.co/handle/document/1118</a>
35					Valle-Barbosa, M.	RIEOEI	<a href="https://doi.org/10.1080/00131352.2017.1375811">https://doi.org/10.1080/00131352.2017.1375811</a>

**Nota.** Matriz elaborada en Excel-Solver (Microsoft, 2020)

**Tabla 2.**  
*Evaluación: Violencia al docente*

No.	Preguntas													Puntaje Total	Promedio	Calificación	Decisión	
	1	2	3	4	5	6	7	8	9	10	11	12	13					
1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	52	4.0	100	SI
2	4	4	4	4	4	3	4	4	4	4	4	4	4	4	51	3.9	98	SI
3	4	2	4	3	4	2	3	3	3	3	2	2	2	2	37	2.8	71	NO
4	4	4	4	4	4	2	4	4	4	4	4	4	4	4	50	3.8	96	SI
5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	52	4.0	100	SI
6	4	4	4	4	4	3	4	4	4	4	4	4	4	4	51	3.9	98	SI
7	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
8	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
9	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
10	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
11	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
12	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
13	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
14	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
15	4	4	4	4	4	4	4	4	4	4	4	4	4	4	52	4.0	100	SI
16	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
17	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
18	4	4	4	4	4	3	4	4	4	4	4	4	4	4	51	3.9	98	SI
19	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
20	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
21	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
22	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
23	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
24	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
25	4	2	2	3	2	1	2	2	2	2	2	2	2	2	28	2.2	54	NO
26	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
27	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
28	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
29	4	2	2	3	3	1	2	2	2	2	2	2	2	2	29	2.2	56	NO
30	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
31	4	2	2	3	3	1	2	2	2	2	2	2	2	2	29	2.2	56	NO
32	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
33	4	4	4	4	4	3	4	4	4	4	4	4	4	4	51	3.9	98	SI
34	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI
35	4	4	4	4	4	1	4	4	4	4	4	4	4	4	49	3.8	94	SI

**Nota.** Matriz elaborada en Excel-Solver (Microsoft, 2020)



Considerando el metaanálisis (MA) una metodología sistemática, aceptada a manera de disciplina científica y a las unidades de observación estudios originales, su objetivo es la revisión sistémica de la literatura; obtener un mejor tratamiento, cuyo proceso consta en tomar una gran cantidad de resultados cuantitativos mientras se realiza un análisis estadístico a fin de integrar los resultados (García, 2016). De igual manera, se empleó el MA con el propósito de realizar el análisis estadístico de la colección de documentos obtenidos producto de la búsqueda exhaustiva de artículos de investigación estableciendo de esta manera, el estado del arte. Se presenta a continuación el ANOM de los puntajes obtenidos a partir del MA, se obtuvo un margen de error de 0.05. En la siguiente gráfica se muestra el análisis de medida realizado a partir de la evaluación de la literatura, encontrándose dentro de los límites, resultando en aceptable los datos encontrados (Minitab, 2020).

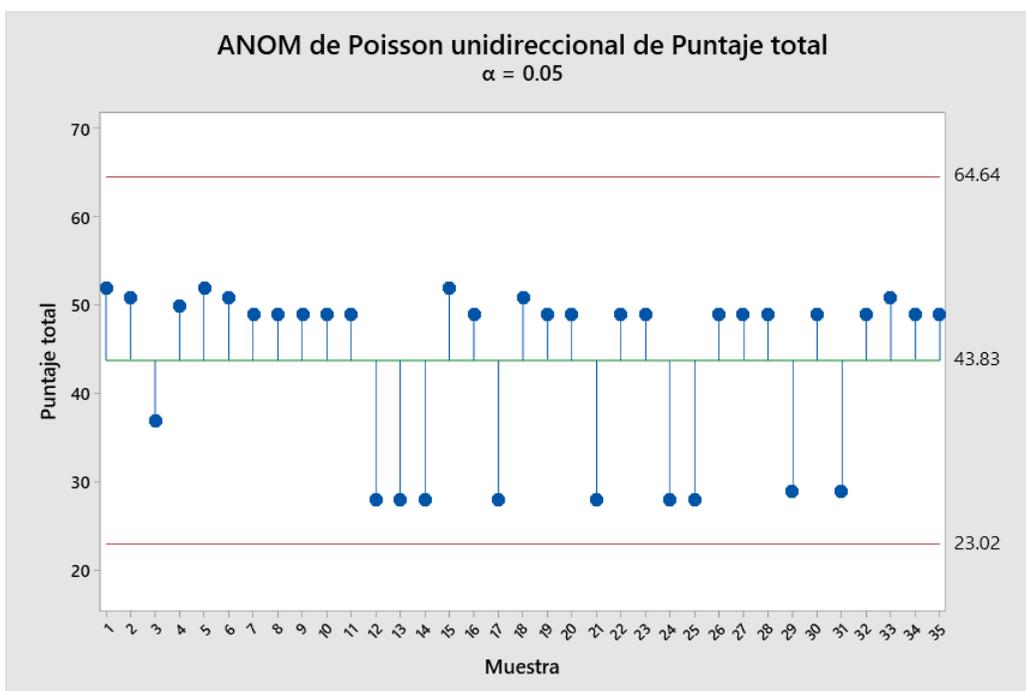


Figura 1. ANOM del puntaje total del Estado del Arte

Nota. Gráfico generado empleando Minitab (2020)

Para verificar las puntuaciones obtenidas y medir la concordancia entre las mismas, se realizó la prueba de normalidad de Kolmogorov-Smirnov con la corrección de Lilliefors, arrojando en el resultado un nivel de significación igual a ,000 (Tabla 3).

Tabla 3. Pruebas de normalidad

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Estadístico	Gl	Sig.	Estadístico	gl	Sig.
<b>VAR00002</b>	.432	38	.000	.641	38	.000

Nota. Cálculos generados empleando Minitab (2020). Se elige la Shapiro Wilk porque se tiene menos de 50 datos (Novales, 2010), no se tiene una distribución normal y el valor de significancia es menor a 5%. a. Corrección de significación de Lilliefors.

Por su parte, la Tabla 4 muestra el uso de la prueba U de Mann-Whitney y la W de Wilcoxon, permitiendo conocer si existe o no diferencia en la evaluación entre los recursos que se cumplen y no cumplen en el metaanálisis.

**Tabla 4.**  
*Estadísticos de prueba*

	<b>VAR00002</b>
<b>U de Mann-Whitney</b>	.000
<b>W de Wilcoxon</b>	45.000
<b>Z</b>	-4.869
<b>Sig. asintótica (bilateral)</b>	.000
<b>Significación exacta [2*(sig. unilateral)]</b>	.000 <sup>b</sup>

**Nota.** Cálculos generados empleando Minitab (2020). a. Variable de agrupación: VAR00001.

b. No corregido para empates

**Interpretación:** Puede apreciarse el estadígrafo de U de Mann-Whitney fue de 0,000 y el valor de p (Significación asintótica bilateral) es igual a 0,000; se acepta la hipótesis nula y se concluye los siguiente: el nivel de puntuación no difiere entre las evaluaciones de los recursos de investigación, con un nivel de significación del 5% (Ramírez & Polack, 2020).

## 5. Discusión

Se reconoce así, la participación de los medios tecnológicos en el espacio educativo, que han tenido un proceso largo en cuanto a ser incluidas herramientas esenciales de apoyo al docente, especialmente en el nivel básico y universidades públicas. Aunado a lo anterior, el fenómeno de la violencia escolar está traspasando la presencialidad y se ha incorporado a la virtualidad, enfrentándose docentes y alumnos a ciberataques. Lo anterior es visible al encontrar un solo documento relacionado al tema de la violencia dirigida al docente por el alumnado, en los siguientes países: Estonia, Venezuela, Trinidad y Tobago, Indonesia, Sudáfrica, Estados Unidos, Serbia, España y Chile.

En México, se localizaron cuatro investigaciones correspondientes a los estados de Hidalgo, Guadalajara, Chihuahua y San Luis Potosí; cabe destacar, se encontró una investigación procedente del estado de Colima, pero no se incluyó en el estudio por ser del año 2014, siendo ésta la primera en esta línea de investigación.

En correspondencia con las investigaciones sobre ciberviolencia dirigida al docente por el alumnado, se localizaron sólo seis investigaciones de los países de Estonia, Irlanda, Turquía, Ucrania y República Checa; de este último, se localizaron dos investigaciones de los mismos autores. En México no se tuvo resultado favorable, las investigaciones encontradas van dirigidas al cyberbullying entre pares; es decir, entre el alumnado; o las estrategias de afrontamiento por parte del docente en relación a la ciberviolencia entre el estudiantado. Esto deja de manifiesto que el tema aquí presentado es relativamente nuevo.

Las problemáticas presentadas en las investigaciones relacionadas a la violencia en la Web mencionan un número creciente de casos cuyo objetivo del ciberataque, simple o repetido, es dirigido al docente (Kopecký y Szotkowski, 2017), en México apenas se puede empezar a notar, dado el uso creciente de tecnología en las escuelas y el aumento de la utilización de celulares smartphones de gama media y alta en niñas y niños. En América Latina, según Bringué, Sádaba y Tolsá (2011), ante la pregunta ¿a qué edad tuviste tu primer teléfono celular?, un 16% contestaron a los 8 años, el porcentaje más alto (17%) a los 10, seguido de los 11 años (15%). Es decir, en 2011 casi la mitad de los niños en Latinoamérica (48%) ya contaba con

teléfono celular e indudablemente estas cifras han aumentado y hasta la fecha, no se cuenta con programas educativos oficiales para el uso ético y seguro de la Web.

Las investigaciones referentes a la violencia ejercida al docente son la continuación del acoso laboral, implican el nacimiento de los términos "malestar docente", "síndrome de Burnout" y "despersonalización", si bien se continúan estudiando en el área de la psicología, son ahora los docentes quienes han impulsado su estudio a través de investigaciones en el área social prueba de ello se retoma a Furlán (2005). Entre las "buenas intenciones" y los "acuerdos funcionales" (Gómez Nashiki, 2005) Violencia e institución educativa (Prieto, 2005), La violencia escolar y vida cotidiana en la escuela secundaria (Valadez y Martín, 2008) El trabajo participativo con docentes: una búsqueda de una propuesta de afrontamiento al maltrato entre iguales.

La tendencia y prevalencia de las investigaciones realizadas entre 2015 y 2021 son las denominadas "Violence against teacher" y "Teacher bullying by the student" que indagan los tipos y características de la violencia vivida por el docente en su centro de trabajo. Las realizadas en México, son mayor en número de investigaciones basadas en la problemática relacionada al papel del docente y el afrontamiento de la violencia escolar, tal es el caso de Díaz Torres y Rodríguez Gómez (2010) *El papel del docente en las situaciones de violencia escolar*, y Docencia violentada. Las significaciones imaginarias sociales del ejercicio de autoridad de los profesores de secundaria de Torres (2017).

El proceso histórico del proceder epistémico ha permitido un cambio en la tendencia del estado de la cuestión, referente a la violencia ejercida al docente, para dar continuidad a la ciberviolencia, encontrándose investigaciones en las bases de datos de la Internet a partir de 2014.

**Tabla 5.**

*Principales resultados encontrados*

<b>Autor</b>	<b>Año</b>	<b>Resultados</b>
<b>Kopecký, K. y Szotkowski, R.</b>	2016	El impacto radica en los sentimientos de: enojo, tristeza, ansiedad, terror, incertidumbre, vergüenza, miedo, auto culpa, renuencia al trabajo, desconfianza, soledad, frustración.
<b>Kopecký, y Szotkowski</b>	2017	Los ciberataques que se detectaron fueron agresiones verbales, humillaciones, insultos, vergüenza, chismes y burlas. Otras formas generalizadas de ataques incluyeron llamadas telefónicas, amenazas o intimidación o difusión de fotos humillantes. La red social más utilizada fue Facebook, con más del 40% de los ataques y Youtube con el 3.14% de los casos.
<b>Challenor, L.</b>	2019	13 participantes (N=13) Vía mensaje de texto (0.2%, n = 1). Usando imágenes o videos (0.8%, n = 5). Llamadas telefónicas (0.2%, n = 1). Por correo electrónico (0.8%, n = 5). Mensajería instantánea (0.7%, n = 4). A través de sitios Web (1.2%, n = 7). A través de redes sociales (3,3%, n = 19).

**Nota.** Kopecký y Szotkowski (2016), Kopecký y Szotkowski (2017) y Challenor (2019)

Cabe destacar, Kopecký y Szotkowski (2017) presentan una lista de ataques más comunes al docente siendo éstos: verbales, humillaciones, insultos, burlas, vergüenza, acoso por teléfono (suena repetidamente por las noches), extorción, amenazas o intimidaciones a través de Internet o telefonía móvil, difusión de

grabaciones sonoras, fotografías o videos humillantes, degradantes y vergonzosos en redes sociales y/o correo electrónico, robo de identidad, uso indebido de una cuenta electrónica y publicación de un perfil falso en alguna red social.

En relación a las formas de ciberataques al docente por parte del alumnado, se asume la clasificación de Kopecký y Szotkowski (2016), quienes plantean las siguientes:

1. *Cyberbaiting* (ciber hostigamiento): provocación al docente con el fin de grabar en sus teléfonos móviles, su reacción de sorpresa y posteriormente compartir el contenido.
2. *Sharing degrading material*. Compartir material degradante del docente, mediante fotos y videos en la Web para posteriormente realizar comentarios hirientes.
3. Creación de sitios Web falsos con el fin de degradar al docente.
4. Creación de perfiles falsos sobre todo en redes sociales con el fin de humillar y denigrar al docente.
5. Hacer amenazas e intimidación al docente en las redes sociales o páginas Web.
6. Extorsionar al docente en las redes sociales o páginas Web.
7. Irrumpir en una cuenta de red social del docente y robar su identidad. (p.3)

Challenor (2019), refiriéndose al Centro de Internet más seguro del Reino Unido (2011), expone las tácticas del ciberbullying o ciberacoso del alumnado al docente, siendo éstas: (a) suplantación de identidad (*impersonation*) es cuando un perpetrador crea un perfil de red social destinado a humillar y degradar el estatus social de la víctima; (b) denigración (*denigration*) puede manifestarse cuando un discente publica comentarios hirientes, rumores y chismes en línea; (c) en la exposición (*exposure*), un individuo distribuye comunicaciones, imágenes o videos de una persona con el propósito de degradar a la víctima y, por último, (d) engaño (*trickery o cyber-baiting*), acciones inducidas a una reacción con el fin de ser grabada y posteriormente publicada en línea. Otras tácticas, reseñadas por Kopecky y Szotkowski (2016, 2017), serían: *flaming, Online harassment, Cyber-satiking, Denigration y Masquerading and Outing*.

En la táctica de engaño, ciber-cebo (*trickery o cyber-baiting*) los estudiantes primero hacen enojar al docente, lo irritan o se burlan de él o ella induciéndole una reacción para posteriormente grabar el incidente, publicarlo en la Web, hacer comentarios hirientes y desacreditarle. Es el tipo de ciberataque más frecuente ejercido del estudiantado al docente. El 20% de 2.379 profesores de 24 países habían conocido personalmente o sabían de un compañero afectado; es decir, uno de cada cinco profesores había experimentado personalmente o conocía a otro profesor víctima de engaño, siendo así uno de los ejemplos más impactantes del uso de redes sociales (Symantec, 2011).

En oposición del contexto escolar presencial, el docente puede tener el control de la disciplina del grupo y desafiar al estudiantado, identificar más fácilmente si comente cualquier acto de indisciplina y actuar al respecto. Según Kauppi y Pörhölä (2012), el acoso cibernético o ciberacoso al docente desafía su autoridad con mayor fuerza que en la presencialidad. Lo anterior ante la característica propia de la Web, al pasar a ser material de la plataforma de la red social donde se publica, se carece de la oportunidad de poder actuar de manera inmediata por estar a disposición de los dueños del perfil, de las políticas de la red social, y al control externo del anfitrión, quitándole al docente todo tipo de control.

Los nuevos desafíos de la virtualidad hacen al mismo docente, vulnerable de los escenarios de ciberviolencia, en el informe Familiar de Symantec (2011) se encuentra que el 67% de los docentes manifiesta ser amigo de los estudiantes en las redes sociales, situación considerada de riesgo; asimismo, el 51% expresa tener un código de conducta escolar o ciberetiqueta apremiante en la conducción, comunicación e interacción entre docentes y estudiantes en las redes sociales y el 80% piden más educación sobre seguridad en línea en las escuelas, siendo apoyados por un 70% de las madres y padres de familia.

Los resultados aquí presentados, dan cuenta que la técnica del metaanálisis fue un instrumento que permitió dar validez a los documentos encontrados en la Web, mediante las tablas analíticas elaboradas con el fin de profundizar en la evaluación de cada uno de los documentos encontrados y someterlos, a cada uno de ellos a una revisión exhaustiva del contenido, eliminando así aquellos que no brindaban el soporte de validez científica.

## 6. Conclusiones

A través del análisis presentado se observa problemática latente y creciente relacionada a la violencia ejercida hacia el docente en su entorno laboral, así como las implicaciones que de ella emergen, sobre todo en lo concerniente a la salud física, psicológica y conductual de la persona violentada.

Las formas de ciberataques al docente son *cyberbaiting* (ciber hostigamiento), *sharing degrading material*, crear sitios Web falsos, crear perfiles falsos que degradan la imagen de la persona (por ejemplo, en las redes sociales), amenazas, intimidación, extorsión, invasión de su cuenta de correo o de perfil social y robar su identidad o contenido digital personal son solo algunas de las que hasta el momento se tiene registro. Cada vez, son más las tácticas y procedimientos utilizados en un ciberataque, rescatando así que la oportunidad de realizar programas de formación y educación continua al docente sobre ciberviolencia, se ve en estos tiempos apremiantes para sobrellevar el tema de en cuestión desde un proceso de prevención, intervención y de solución inmediata, a fin de evitar el aumento de víctimas, y se reduzca la falta de visión de la opinión popular en torno al docente.

Se puede apreciar que son relativamente pocas las investigaciones sobre la violencia ejercida al docente por parte del estudiantado, por lo que es apremiante el surgimiento de investigaciones concernientes a las estrategias de seguridad deben asumir docentes y estudiantes en los nuevos ambientes virtuales de aprendizaje, donde se están generando nuevas culturas de interacción, de comunicación, lenguaje, enseñanza y de aprendizaje, donde los sujetos se vuelven cada más vulnerables por las características propias del Internet.

No obstante, es al docente a quien le corresponde formarse, actualizarse en los diferentes entornos digitales, de igual manera es necesaria su revalorización en la sociedad reafirmando su papel en la sociedad, pero sobre todo como ser humano con derecho a ser valorado y respetado.

## Futuras líneas de investigación

A los investigadores interesados en el tema de violencia escolar considerando al sujeto de estudio el docente, cabe rescatar que el tema es amplio y hay temas diversos a tratar siendo estas las interrogantes pendientes ¿Por qué el docente no habla sobre su situación de violencia? ¿Qué lleva a un estudiante a violentar al docente? ¿Cuáles son las características del agresor? ¿Qué lleva a un padre de familia, a violentar a quién dedica la mitad de las horas del día a sus hijos? ¿Cuáles son los derechos del docente al momento de ser violentado por un estudiante? ¿Cómo implantar brigadas de seguridad? ¿Cuál es el papel de las autoridades escolares ante el tema de ciberataque al docente?

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## ¿Qué se esconde detrás de la magia de los cuentos de hadas clásicos? El caso de los cuentos del padre Donat Kurti, los hermanos Grimm, Perrault y Andersen

### What Lies Behind the Magic of Classic Fairy Tales? The Case of Father Donat Kurti's Tales, the Brothers Grimm, Perrault, and Andersen

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#### Resumen

Para trabajar con y para los niños y los jóvenes, es necesario ser conscientes de la calidad de la satisfacción que reciben y el grado de dificultad al que se puede enfrentar. Los niños siguen siendo las flores más hermosas en todos los prados, los campos y las montañas de la vida y poder influir en su forma de pensar, juzgar y actuar, sobre todo, es un desafío espiritual. La obra ¿Qué se esconde detrás de la magia de los cuentos de hadas clásicos? pretende ser testigo de lo que ocurre tras bambalinas en el maravilloso y especial escenario, donde se representan los acontecimientos de los mejores cuentos de hadas clásicos. Se analizan algunos de los cuentos populares recogidos por el padre Donat Kurti, los hermanos Grimm, Perrault y los cuentos literarios de Andersen. El análisis descriptivo, comparativo y argumentativo intenta poner de relieve índices ocultos que de forma calculada (aunque no seamos conscientes de tal efecto) inyectan receptores nocivos en los niños y los jóvenes, quienes en una etapa posterior responden en forma de violencia verbal, física, falta de respeto, falta de autorrealización y problemas de identidad. Este trabajo pretende, además de la descripción, identificación, comparación y análisis, orientar y replantear una posible solución a esta problemática.

**Palabras clave:** cuentos clásicos, índices de puntos ocultos, bullying, antivalores.

#### Abstract

When working with and for children and youth, it is essential to be aware of the quality of satisfaction they receive and the level of difficulty they may face. Children continue to be the most beautiful flowers in all the meadows, fields, and mountains of life, and being able to influence their way of thinking, judging, and acting is, above all, a spiritual challenge. The work "What Lies Behind the Magic of Classic Fairy Tales?" aims to bear witness to what happens behind the scenes on the wonderful and special stage where the events of the best classic fairy tales are performed. Some of the popular tales collected by Father Donat Kurti, the Brothers Grimm, Perrault, and Andersen are analyzed. The descriptive, comparative, and argumentative analysis attempts to highlight hidden indicators that, in a calculated manner (although we may not be aware of such an effect), inject harmful messages into children and youth, who later respond

with verbal and physical violence, lack of respect, lack of self-realization, and identity issues. In addition to describing, identifying, comparing, and analyzing, this work aims to provide guidance and propose a possible solution to this problem.

**Keywords:** classic tales, hidden indicators, bullying, negative values.

## 1. Introducción

Érase una vez un cuento fascinante para nosotros, tan hermoso que los niños quedaron asombrados. Este cuento nos enseñó el trabajo, la educación, la amabilidad, la moralidad, estimuló la imaginación, hizo que los niños pensarán “fuera de la caja” y sobre todo este cuento era muy ameno, pero tenía algunos elementos de violencia, incluso vocabulario inadecuado para los niños, donde la forma de describir a los personajes dejaba muchas veces espacio para la discusión, y donde la figura de la mujer, madre, madrastra, podía incitar a malentendidos. Según la investigadora Dema, A. (2018, pg.12), los cuentos de hadas se consideran una de las creaciones más antiguas de la prosa oral y, más ampliamente, de la literatura oral. Ellas han existido como una necesidad humana inicial de expresar los sueños, los deseos, la belleza y la bondad, entonces en ellos de hadas el hombre es el que quiere ser y hacer cosas imposibles. Los cuentos de hadas parten de la realidad para tomar un camino completamente diferente, muy alejado de ella, pero nunca totalmente diferente porque, mágicamente, vuelven de nuevo a educar, a dar un mensaje, a expresar una opinión, un juicio, a dar un mensaje, necesario para darse a conocer en la realidad donde vivimos.

Bettelheim (1976, pg.47), un conocido psicólogo austriaco sobre el significado y la importancia de los cuentos de hadas enfatiza que los cuentos de hadas pueden simplificar la situación, así como la familiaridad de los niños con las cosas que los rodean. Por ejemplo, describe claramente que tiene diferentes caracteres de personas, describiéndolo con caracteres típicos como un hermano tonto mientras que el otro sabio, una hermana con muy buenas cualidades mientras que el otro malvado y flojo. Un padre puede ser bueno mientras que otro no. A través de estas descripciones, Bettelheim (1976) señala que los niños de diferentes edades pueden desarrollar estructuras cognitivas con la realidad, para comprender la presencia de diferentes cualidades, buenas y malas en una persona. El niño se identifica con un personaje héroe, quitándole sus buenas cualidades y tratando de adoptar comportamientos sociales agradables, influyendo así positivamente en el desarrollo psicosocial del niño. El niño puede aprender de los cuentos de hadas que una persona puede ser valiente, imaginativa, participativa, persona que cumple su palabra, que gana en diferentes situaciones y tiene éxito.

En este contexto, los cuentos de hadas representan un espacio donde los niños encuentran rasgos humanos, cosas que pueden pertenecerle a él y a toda la humanidad, valores positivos y negativos. Los cuentos de hadas son inspiradores ya que estimulan la imaginación y la creación artística, son una forma de arte única. Ella, es dicha de estimular el desarrollo de la imaginación, que predice el éxito, haciendo que los niños creen su confianza y espacio para soñar con la vida, así como prepararse para las actividades en el mundo exterior.

Los cuentos de hadas deben su existencia a dos elementos principales: el entretenimiento y la educación. El cuento parece haberse apoderado del entretenimiento y la educación de individuos de todos los estratos sociales y de todas las edades, pero especialmente de los niños, que es el grupo de edad más delicado y fluido, y dicho ya esto, se sabe que los cuentos de hadas forman parte del folklore, el lugar de encuentro con lo mágico, lo poético y lo emotivo. Debido a los ricos símbolos, los cuentos de hadas son y seguirán siendo una inspiración duradera no solo para los niños sino también para los artistas, científicos y muchos otros. Los cuentos de hadas sería mejor contarlos en su forma original, porque de esta forma no sólo conservan, sino que transmiten todas las figuras estilísticas que constituyen un valor artístico indiscutible.

## Sombras que apuntan hacia el antivalor

Con valores y apreciación valiosa, entenderemos

- a) El máximo de contraprestación por el mérito, importancia o utilidad de algo.
- b) Principios o normas de conducta; el juicio sobre lo que es importante en la vida.
- c) Considerado -por alguien o algo- importante o útil; ser, la existencia de una alta opinión.

Dados los puntos anteriores, intentaremos dar una mirada holística a la identificación de los antivalores que aparecen en algunos de los cuentos objeto de estudio de este trabajo. Así que mencionar al primero los hermanos Grimm, Jacob Ludwig Karl Grimm y Wilhelm Carl Grimm, fueron académicos, filólogos, eruditos culturales, lexicógrafos y autores hessianos que juntos recopilaron y publicaron folklore durante el siglo XIX.

Hans Christian Andersen, fue un prolífico escritor de obras de teatro, novelas y poesía, pero en realidad, es mejor recordado por sus cuentos de hadas. Por otro lado, Charles Perrault quien sentó las bases de un nuevo género literario, el cuento de hadas, con sus obras extraídas de cuentos populares anteriores, publicó en 1697 su libro *Histoires ou contes du temps passé*, y también editó y publicó volúmenes de cuentos de hadas que luego se convertirían en el regalo más grande que podría dejarse a los niños de todo el mundo. Donat Kurti<sup>1</sup> fue padre, maestro, etnólogo, folclorista y traductor de albanés. Principalmente en los estudios del folclore albanés, se le recuerda por la recopilación del Ciclo Kreshniks (*Cikli i Kreshnikëve*) y los Juegos Nacionales (*Lojët Kombëtare*) junto con el Padre Bernardin Palaj y la clasificación de los Cuentos Nacionales (*Prralla Kombtare*), que el albanólogo austriaco Norbert Jokl describió como "uno de los más grandes escritores en prosa albanes". (Kurti, 2003, pg.17)

Con la referencia a los volúmenes de cuentos de hadas recopilados por los autores mencionados intentaremos sacar a la luz algunos aspectos que necesitan ser inspeccionados y reconsiderados por los pedagogos, los educadores y los profesores, antes de tener la posibilidad de ser utilizadas como materia prima en el proceso de educación y enseñanza. Debemos tener en cuenta, el momento en que se recopilaron estos cuentos es un poco distante, incluso el momento en que estos cuentos se mostraron incluso más allá. Las conclusiones extraídas están sujetas al factor tiempo, las reglas sociales y el estilo de vida, en el momento en que los cuentos de hadas se cuentan. Teniendo como referencia algunos de sus relatos, digamos que se ha asumido lo mejor, sacándose a la luz las sombras de personajes, hechos, situaciones, mensajes, textos y subtextos y arrojar luz sobre aquellos aspectos que pueden transmitir poco o nada de los que se pueden llamar valores o si se han considerado como tales antes de su calidad de la educación, la comunicación y la transmisión de los mensajes inherentes se ha transformado, se ha alineado, se ha cambiado, por no decir se ha deteriorado.

### En los cuentos de hadas albaneses<sup>2</sup>

El primer elemento que se destaca inmediatamente en los cuentos de hadas albaneses es el posicionamiento de los personajes femeninos en comparación con los masculinos. Los personajes

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<sup>1</sup> Donat Kurti (1903 - 1983) fue un fraile franciscano, educador y folclorista albanés. Donat Kurti nació en Scutari, en el tiempo del Imperio Otomano. El estudió teología y filosofía en el Collegium Antonianum de Roma y fue ordenado sacerdote franciscano en 1927. Después de su regreso a Scutari, enseñó en el Colegio Ilirio. El padre Donat Kurti fue particularmente interesado en el folclore albanés y el verso épico. Junto con el padre Bernardin Palaj, publicó los ciclos más conocidos de la poesía épica albanesa Kângë kreshnikësh dhe legjenda (Las canciones de los guerreros fronterizos y las leyendas) en Tirana, en 1937. Después de la Segunda Guerra Mundial, como muchos otros sacerdotes católicos, el padre Donat Kurti fue arrestado por los comunistas en 1946 y enviado a varias prisiones durante los siguientes 17 años. (Elsie, 2010)

<sup>2</sup> Los cuentos albaneses presentados para el análisis se extraen del volumen de cuentos de hadas Prralla Kombtare, Mledhë prej gojë së popullit, Blë I, segunda edición, A. Gjergj Fishta, Shkodër, 1942 y Historias albanesas antiguas de Mitrush Kuteli, Mitrush Kuteli Edition, Tirane.

femeninos a menudo se personifican como hermosos y frívolos o feos, viejos y malvados, casi siempre necesitados de hombres. ¡Esta característica se enfatiza aún más por el vocabulario y la sintaxis que se les “pone” en la boca de los confesores!

### “Bilbil Gjysmëari - El medio ruiseñor dorado”

Los cuentos de hadas antiguos de la primera y segunda edición, recopilados por el padre Donat Kurti, son cuentos de hadas antiguos recopilados principalmente en las zonas del norte de Albania a finales del siglo XVIII y principios del XIX. El padre Donat Kurti, en la introducción al primer volumen, llama nuestra atención sobre el hecho de que los cuentos de hadas que él recoge directamente de la boca de la gente pueden ser largos, breves, llenos de valores artísticos y morales, pero también no aptos para niños, por lo que considerando que estos últimos son de una cantidad considerable, debemos tener cuidado al contarlos y transmitirlos. Todas las historias de estos cuentos fueron contadas a los niños por sus abuelos, madres o tías que quedaron solteras o viudas en casa, sin prestar la debida atención a los consejos y comentarios del Padre Donat Kurti.

Uno de estos es el *Bilbil Gjysmëari - El medio ruiseñor dorado*. Dado que el propósito de este artículo es resaltar los colores oscuros que se pueden ocultar detrás de los antiguos cuentos de hadas mágicos, se consideró razonable que este cuento se tomara como una ilustración.

- *Es vieja y se da la vuelta mirando fijamente la casa y al girar se le vierten los pechos por detrás. Vas atrás de ella, se le agarras los senos con la boca y luego ella te preguntará: “¿Qué eres tú que me jalas los senos?” Y le dirás: Yo soy tu hijo, y te conozco como mi madre.*

Si este párrafo lo lee un adulto logra entender el nivel de fantasía, pero para los niños, que constantemente estamos tratando de enseñarles el respeto por el propio cuerpo y el cuerpo de los demás y también el respeto por los espacios personales, no se puede saber el qué se puede entender o malinterpretar. Este párrafo traerá malentendidos especialmente por el hecho de que la acción del protagonista en el cuento se considera normal, porque él la ve como su propia madre.

También en este cuento:

*El niño les pregunta a las niñas, ¿qué quieren que haga, para que me ayuden en mi camino?*

- *Quedarse aquí tres meses y que cada mes duerma con uno de nosotros.*

Los personajes de este cuento no están determinados por la edad, pero está claro que son adultos, no son niños. En este caso dormir con alguien no es nada más inocente. Nosotros atrevemos decir que nos parece una oferta directa de sexo en cambio de ayuda. ¿Debe un niño pensar que tiene derecho a pedir cualquier cosa para ayudarlo? Y sobre todo aceptar todo porque el protagonista accede a este pacto.

### “Una Carta al mundo de los muertos”

Como en muchos cuentos de hadas albaneses, el papel de una mujer es similar al de un objeto en manos del protagonista (el hombre). Pero en este cuento he notado algo aún más sutil que eso, que es la negación de los derechos humanos.

- *¿Qué vas a hacer ahora que te encontré? – pregunto el chico.*
- *Vamos a tu casa y te daré la palabra de que nos viviremos bien. - dijo ella.*

En este cuento el cazador encuentra a *La Más bella de la Tierra* la que fue secuestrada por un genio. El genio la despertó por la noche y la mantuvo despierta hasta la próxima mañana, la hizo pedazos y la colgó de un árbol. Ella estaba haciendo aquella vida por casi 10 años.

En la vida real esto se llama secuestro y abuso.

En el dialogo sobre mencionado extracto de la conversación entre el genio y *La Más belle de la Tierra*, se pueden percibir indicios negativos a los niños. *La Más bella de la Tierra* parece escapar de una esclavitud para caer en otra. Ella no es consciente de sus habilidades para hacerlo por su cuenta y tener éxito.

La niña en lugar de pedir ayuda para escapar le pide al extraño que la lleve a su casa. El hecho de que estas palabras se pongan en boca de la niña nos hace pensar más en esta situación porque no es la primera vez que se encuentra en los cuentos de hadas albaneses donde los personajes femeninos son mantenidas cautivas, esclavas o ellas mismas son ofrecidas como esclavas.

### **“Maro, la niña de las cenizas”<sup>3</sup>**

Los cuentos de hadas son una forma llena de imaginación y fantasía de contar un evento. En los cuentos de hadas, se encuentran el bien y el mal. Pero sucede que estos enfrentamientos o incluso en los obstáculos que enfrentan nuestros héroes, durante su viaje, nos encontramos a menudo con elementos descriptivos violentos o inapropiados, de esta manera en los cuentos de hadas sucede que dos personajes femeninos se enfrentan entre sí. Comprensiblemente, esto se hace para darle a la acción un tempo-ritmo y hacerla más interesante. Hasta aquí creemos que todas las partes están de acuerdo. Incluso en el cuento de hadas, *Maro, la niña de las cenizas*, se encuentra con un personaje como el de la madrastra que odia a Maro solo porque es hermosa. Aparece la figura del padre compasivo, que quiere cuidar a su hija hasta en su adolescencia, pero hoy en día tenemos ser prudente porque una madrastra ya no es un personaje negativo, pues los grandes cambios sociales y económicos se han convertido en la causa de la creación de diferentes estratos y condiciones sociales. La madrastra ya no es solo un personaje de cuento de hadas, sino una realidad, aunque amarga.

En muchos cuentos de hadas autóctonos albaneses aparece la malvada y la única razón que tiene para odiar a la hija de su marido es por su belleza. Esto lo hemos notado originalmente en la *Blanca Nieves* y la *Cenicienta*, dos cuentos típicos de este tipo. Incluso los demás miembros de la familia, las dos hermanas del padre se encuentran en las mismas condiciones. Por tanto, convendría tener mucho cuidado en el tratamiento de esta figura fabulosa, que también juega un papel místico en su hábitat, pero si es necesario extraerla de este hábitat, debe tratarse con herramientas pedagógicas y psicológicas específicas para conservar su primer sentido fantástico, pero también una adaptación, al último social propio, contemporáneo.

### **“La hermana de los siete hermanos”**

- ... *la untaron con resina de pino y la quemaron viva.*

Para la investigadora A. Dema (2018, pg.8), el cuento de hada es considerado una de las creaciones más antiguas de la prosa oral y, en general, de la literatura oral. Ha existido como necesidad humana inicial para expresar los sueños, los deseos, la belleza y la bondad, y como tal, su finalidad primera y fundamental debe ser la educación en valores y sentimientos bellos, lo cual, es, no distinguir en el cuento *La hermana de los siete hermanos*. Los detalles de este cuento: *resina de pino, ardiente, vivo*; ¡Dicta abiertamente una situación de pesadilla nada educativa y aún más divertida!

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<sup>3</sup> Es la versión albanesa de la Cenicienta.

## "El niño obediente y el Ogro"

- *El chico se fue. En el camino se encontró con una gitana muerta, que tenía un juguete en la cabeza. El niño tomó el juguete y siguió su camino...*

Gypsy (Gitana en español) es una expresión racial que se usa para etiquetar a las personas de la comunidad gitana o de color, por lo que el prejuicio racial o de género está mal. Creemos que en este caso, el editor literario de volúmenes con cuentos de hadas tales antologías debe tener cuidado de no salir a la publicación a menos que hayan pasado previamente por un control detallado por parte de los profesionales en el campo tales como: lingüistas, psicólogos, pedagogos y maestros de la primaria. (Preferiblemente). Siguiendo este significado, en el cuento de hada, "El niño obediente y el Ogro", se muestra la soltura con la que se cuenta el hecho de que estaba muerto, así que estamos ante un muerto en la calle, pero al que le impresionan más los juguetes que este hecho, el niño después, coge el juguete y sigue su camino. Entre los cuentos encontramos ejemplos confeccionados de educación social y convivencia civilizada entre todos los miembros de la sociedad sin indiferencia, descuido, rasgos absurdos y egoístas, y si se quiere tomar este cuento como ejemplo para materializar cualquier idea práctica o actividad, como punto de partida, habría que despojarlo de la convivencia social denigrante, ofensiva y anti sana.

El acoso y la discriminación social deben educarse desde las primeras etapas de la crianza de un niño, es decir, desde las guarderías o jardines de infancia, porque sólo tomando medidas en esta edad podemos estar seguros de una posible convivencia futura. No queremos creer que sea un caso aislado en los cuentos albaneses antiguos y autóctonos. El mismo Padre Donat Kurti en Cuentos Nacionales (Prralla Kombtare) en este punto tan sensible diría: "Hay cuentos largos y cortos, serios y ridículos, malos y sucios, y sobre todo estos últimos abundan". (Kurti. P. Donat, 1942)

## Cuentos recopilados por los hermanos Grimm, Andersen y Perrault

Todos hemos visto -y todavía vemos- los cuentos de hadas como historias mágicas e inocentes contadas a los niños. Lo cierto es que los cuentos de hadas son mágicos y maravillosos, hay muchos aspectos en ellos que necesitan ser revisados, o al menos seleccionados dependiendo de la ocasión a utilizar. Hemos concluido que, en muchos cuentos de hadas, la relación entre mujeres y hombres no se ilumina con la mejor luz... ¡pero no solo! Al trabajar con cuentos de hadas y mirarlos desde un punto de vista más profundo y pragmático, nos hemos dado cuenta de que algunas cosas que dábamos por sentado como normales y acomodadas en la infancia, de hecho, no habían sido así (¡no lo son!).

Nos gustaría comenzar con el cuento de hadas "La Bella y la Bestia". (Perrault, Cap. 1901) El más hermoso de los cuentos, el más especial, de todo el fondo que hemos realizado en el análisis; el mensaje que da encuentra su lugar incluso hoy en la era (nos atrevemos a llamarlo, loco) de Internet donde todos corren después de aparecer y mostrar.

Sin embargo, este no es solo un cuento maravilloso que nos enseña a amar incondicionalmente incluso más allá de la belleza exterior. Este cuento trata un tema muy delicado, una joven se ve obligada a pagar la deuda de su padre, es rehén en un castillo y se enamora de la bestia que la retuvo allí contra su voluntad. Por un lado, esto es maravilloso, pero podemos decir del otro lado de la moneda. ¿Por qué? Debido a que ella se enamora de su abusador, a menudo las víctimas de abuso confunden el dominio de los abusadores y su deseo de control como signos de amor. (*Síndrome de Estocolmo*) Así, nosotros vemos a Bella como un personaje noble que se enamora de una bestia, pero juzgamos que este sentimiento enciende algunas señales en la mente de las personas más jóvenes que también pueden buscar convertirse en Bella para algunas bestias que, a diferencia de los cuentos de hadas, no podrán convertirse en príncipes.

Por lo que hay que tener cuidado con las señales que se emiten y su intensidad. En la sociedad moderna y posmoderna, la actividad humana está descuidando cada vez más (*quizás incluso intencionalmente*) el afecto y el cuidado, el respeto y el amor y, sobre todo, el sacrificio consciente y deliberado. *La Bella y la Bestia*, el cuento que ha viajado a través de los siglos, ha sido recontado, proyectado o puesto en marcha como musicales, porque realmente se destaca por sus elementos fantásticos y teatrales, puede convertirse en motivo de pistas con efectos opuestos.

Además, en este cuento se identifican problemas de género y claro rasgos patriarcales, especialmente con el comportamiento de Gastón hacia Bella y todo el pueblo. Quiere casarse con ella no porque ame a Bella, sino porque ella complace su ego masculino. Su trato brutal y nada caballeresco, su trato con ella y las formas de cortejo, dejan mucho que desear, por lo que recomendamos tener en cuenta la edad a la que las niñas o los niños pequeños pueden o deben ser presentados a tales personajes, que, sin embargo, están tan logrados que permanecen mucho tiempo en la mente.

En los cuentos "La Bella Durmiente" (Grimm, J & W. 1886), "Blanca Nieves" (Grimm J & W. 1884) "Cenicienta" (Grimm J & W. 1922), "La Sirenita" (Andersen, H, C. 1917) se suele enfatizar el estereotipo de una mala, fea, vieja hacia una joven, bella y buena. Se ha observado que, en general, los cuentos de hadas suelen ser lacónicos desde el título, esto como un derecho legítimo del cuento de hadas y su carácter conciso. Así, hasta en el título entendemos que se estará hablando de una niña, seguramente hermosa, que o duerme mucho o se ha quedado dormida y espera a que la despierten, ya sea por una niña tan hermosa y de piel blanca como la nieve o por una niña (*el género recomendó pensarse que se trata de una-ella*) que o se queda mucho tiempo en las cenizas o se ocupa de limpiar las cenizas y una sirena, en otras palabras, ¡para una niña del mar!

Hemos encontrado que la figura femenina es juzgada y dada muy superficialmente de una manera terriblemente equivocada, pero también el motivo del conflicto es tan banal, igual de superficial; la belleza. Por lo tanto, se supone que las mujeres viejas -relativamente- feas siempre odian a las chicas jóvenes y hermosas. Mientras que a la bruja se la describe como una mala fea, envidiosa pero muy astuta, a la niña o princesa se la describe como demasiado buena, justa y educada para tratar con un comportamiento que puede interpretarse fácilmente como una frivolidad. No es el propósito de este artículo detenerse en este punto (quizás en un segundo), pero esta forma preestablecida de comportamiento y comunicación prepara a los individuos débiles e incapaces para afrontar el día siguiente. El mundo de las princesas parece estar aumentando a pasos inimaginables últimamente.

### "Cenicienta" (Perrault, 1901)

La relación de *Cenicienta* con su madrastra y sus hijas -hermanastras- se da en los colores oscuros. No seamos repetitivos por el papel de la madrastra como madre, pero *Cenicienta* (*en los cuentos de hadas recogidos por el padre Donat Kurti, viene en la versión Maro la niña de las cenizas, por lo que la niña que se sentaba junto a las cenizas*) es verbal y abusada psicológicamente por la madrastra y sus hijas. No es difícil comprender que además de la violencia verbal y psicológica, este fenómeno es una clara esclavitud; se utiliza para todas las tareas del hogar, pero todavía se niega a salir y no se da ninguna razón específica.

Pero ella espera al príncipe. El príncipe (*la figura masculina perfecta*) es el único que puede salvarla. La medida de la magia, como parte indiscutible de lo fantástico, acude en ayuda de nuestra princesa, la cual, debe tomarse con factor corrección en la actualidad! ¡Esto no quiere decir que las generaciones vengán a volverse más ignorantes, pero sí que la falta de imaginación sana y de calidad, hará que seamos una generación perezosa y que espera soluciones sugeridas o preparadas!

Los niños y jóvenes se encontrarán con muchas situaciones de este tipo en la vida, provocadas ya sea por la madrastra/el padrastro<sup>4</sup>, pero a menudo serán intimidados por los compañeros de clase o miembros de cualquier otro entorno no solo cuando son niños sino también durante la adolescencia y ningún príncipe los ayudará; necesitaremos encontrar al príncipe dentro de nosotros mismos. En el cuento de hadas se dice: "*Ella lava, limpia y es muy hermosa*" - ¿Habéis notado que todas las heroínas de los cuentos de hadas son sometidas en posiciones en las que son valoradas, solo si hacen las tareas del hogar y son muy hermosas?

Por ejemplo, los personajes del estudio tienen los siguientes atributos: Blanca Nieves, Cenicienta, La Bella Durmiente, Blanca Nieves y Rosa, etc.

"Hacer" las tareas del hogar, aunque no a una edad adecuada, se considera una alta virtud, pero es tan evidente que puede acabar dando el mensaje contrario de que si no eres un ama de casa perfecta, no vales nada. Esto en el caso de las niñas y en una sociedad patriarcal sonaría natural.

La edad de las protagonistas de los cuentos de hadas sigue siendo un tema candente para discutir. Si los príncipes, en la mayoría de los casos, han alcanzado la edad de la madurez (*claramente esto no solo en los cuentos hada se de nuestro estudio*), nuestras princesas todavía están en la adolescencia. Blanca Nieves cuando se pierde en el bosque tiene solo 15 años y no pasa mucho tiempo hasta que intercambia el primer beso de amor verdadero. La sirenita también tiene solo 15 años cuando se enamora platónicamente de un hombre. Incluso Aurora, acaba de cumplir quince años y está lista para el matrimonio.

Quedando en Blanca Nieves<sup>5</sup> y Aurora, el príncipe las besa mientras están inconscientes, es decir, cuando no son conscientes de sus acciones y, en cierto modo, son besadas por un desconocido incluso cuando se levantan, se enamoran de él y viven felices para siempre.

En la versión antigua de Aurora, el príncipe va más allá del beso...

### "Hansel y Gretel"

En este cuento de hada, el abandono, como la mayor pesadilla de un niño, se hace realidad. Los rasgos femeninos negativos prevalecen sobre los masculinos. Ambos padres son padres biológicos de los niños, pero la madre es quien no los ama, mientras que el padre es descrito como bueno y humilde, hasta débil y sin carácter que no es capaz de discutir con su esposa para proteger a sus hijos. En este caso, la consigna se cuadruplica: ¡Papá es el héroe de los niños, tanto de la niña! Ya se sabe, que la historia de Hansel y Gretel surgió a raíz de la gran tragedia, una gran hambruna que asoló Europa en 1314 cuando las madres abandonaron a sus hijos y en algunos casos se los comieron. La historia contiene el abandono de niños, el intento de canibalismo, la esclavitud y el asesinato. El origen de la historia es igual o incluso más terrible. Aunque Hansel y Gretel se considera uno de los mejores cuentos de los hermanos Grimm, quizás identificando su notable trabajo, su análisis psicológico y semiótico lleva el agua al molino de los antivales, ¡al menos en Europa del 2021!

Nuestra pregunta, aunque consciente, ingenuamente: - ¿No es el padre el que los lleva dos veces al bosque? De todos modos, los niños logran escapar cuando el ingenio de Gretel mete a la bruja en el horno que estaba preparando para su hermano. Regresan a casa con el tesoro de la bruja y descubren que su madre ya no existe; supuestamente muerta, por lo que viven feliz para siempre. Pero la verdadera historia detrás del cuento de Hansel y Gretel no es tan feliz como esta conclusión. Lo que se destaca a través de este análisis es el papel insustituible que tienen los padres en la educación y preparación de los niños para

<sup>4</sup> No se trata de lidiar con relaciones familiares tensas o extremos sorprendentes de este tipo.

<sup>5</sup> ¡No hemos olvidado ni dejado de lado intencionalmente que la relación de Blanca Nieves era condicional!

los próximos días, tratando de hacer esto primero, entre el cuidado y el amor! ¿Quién es esa madre, cuyos sentimientos narcisistas prevalecen sobre los de la maternidad?

### “Rapunzel”

Los valores morales que se evidencian fácilmente en Rapunzel son

- Desconfiar de los “frutos” prohibidos,
- No dejar que los celos arruinen nuestra relación y
- Dar a los niños la libertad que necesitan a medida que crecen.

No es difícil entender que Rapunzel es el símbolo de permanecer niña, materializada en su cabello, pero cuando se requiere usar cada vez más el objeto de esta niñez (*su supuesta madre, pide tirarlos todos los días para que la usen como herramienta*) y es en este patrón de comportamiento que se convierte en el emblema de su esclavitud.

Otro antivalor que debería hacernos pensar dos veces antes de recomendarlo como libro o como tema de lectura tiene que ver con el hecho de que Rapunzel, fuera de las reglas biológicas, éticas y legales, según la primera versión de los hermanos Grimm, se entrega a su “príncipe”, lo que lleva a un embarazo en su adolescencia. Sin embargo, ella no tenía 18 años! Eugene Fitzherbert, siempre según la primera versión de la historia, tenía entre 25 y 26 años, así que, sin embargo, él está en la edad adecuada para convertirse en padre!

El otro tema que vale la pena analizar:

- *El príncipe se amargó tanto cuando la bruja le dijo que no volvería a ver a Rapunzel que saltó por la ventana y se quedó ciego.*

El príncipe se lanza por la ventana de una torre, a pesar de la función dramática que este papel juega en el relato, el suicidio a la primera dificultad de sobrellevarlo no es el mejor mensaje que se puede dar. Incluso el suicidio no debería darse como una opción en absoluto. Tenemos que aceptar que Rapunzel es un cuento con un tema realmente especial, pero debe ser contado por educadores de campo o debemos estar preparados para las preguntas y problemas que puedan surgir. Y si no les fluye ninguna pregunta, algo anda mal.

### “El gran Klaus y el pequeño Klaus”

Es un cuento de hadas, con la presencia de muchos elementos de violencia a medida que todo el cuento de hadas se vuelve absurdo. Las diferentes teorías de la educación y la pedagogía proclaman cuatro valores principales de la moral, que deben ser aprendidos durante el proceso de enseñanza o lo largo del aprendizaje continuo sobre la vida.

Estos son

- Respeto mutuo,
- Atención continua y
- Honestidad.

La Educación en valores puede extenderse y hacerse más completa y lograda, incluyendo actitudes prioritarias como: perseverancia, responsabilidad, ser responsable y realizar acciones responsables,

preservar la identidad nacional, el compromiso y la participación, la integridad, la observancia de las leyes y la empatía.

Volvamos al cuento literario de Hans Christian Andersen, publicado en danés en 1835 en la primera parte del folleto *Tales of Tales for Children, The First Collection*. En este folleto, se encuentra *El gran Claus y el pequeño Klaus* donde se cuenta la historia de dos habitantes de un país que tenían el mismo nombre, pero no la misma posición social. ¡El mayor era más rico y, respectivamente, más salvaje, sin corazón y, desafortunadamente, nada inteligente! El pequeño, en cambio, era pobre (*su riqueza se medía en los números 4 y 1*), algo más humano, más inteligente, aunque egoísta (*dijo que los cinco caballos eran suyos*) y astuto.

¡Todo el cuento de hadas es el peor ejemplo de demostración de ingenio, sabiduría y destreza! Primero se debe condenar la violencia contra los animales, que se manifiesta en la matanza (sacrificio) de animales tan nobles como los caballos y la forma en que se reacciona ante esta acción, profundiza su ambigüedad, desconocimiento y peligroso delirio.

- *Déjame decirte que "Los cinco son mis caballos" y el Gran Klaus tomó un palo grande y golpeó al caballo del pequeño Klaus en el medio de la frente y lo dejó muerto en el acto.*

La violencia física, el acoso como hecho frecuente de las últimas décadas, se extiende a lo largo del relato.

- *Quiere burlarse de nosotros, - dijeron y tomaron los cinturones de cuero y golpearon brutalmente al Gran Klaus.*
- *Dijo enojado Klaus el Grande - El pequeño Klaus me devolverá el dinero, lo mataré.*

Él va a la casa del pequeño Klaus con un hacha y encuentra un cuerpo humano cubierto con un colchón y lo golpea con el hacha. Acostada en la cama estaba la abuela muerta del pequeño Klaus.

Esta parte del sujeto va seguida de la frase: - *¡Qué bueno que se hubiera muerto la abuela que la hubiera matado!* (Christian, H, Cap. 1917)

La blasfemia, aunque en este caso sea del tipo oris, es decir, provocada entre palabras, debe ser condenada y menos presentada a edades jóvenes como un cuento de hadas.

- *Vendí a la abuela que mataste y gané una olla de oro.*

El lector sabe que es consciente de cómo se obtuvieron las ollas con oro, pero esta afirmación no es del todo apropiada... Grand Klaus también se siente halagado por esta afirmación tan extraña y después de matar a su abuela va al médico. Con esta acción para ser tomada en serio, Klaus respeta cualquiera de los valores morales y prioridades mencionados anteriormente: ni cuidado y respeto mutuo, ni integridad personal, ni amabilidad, ni honestidad.

El médico, como representante de la masa mentalmente sana, está aterrorizado y amenaza con ser castigado, pero Grand Klaus huye a la casa y se queda solo con la gente; porque creen que está loco. La facilidad con la que se maneja esta situación es aterradora. Encontramos un fraude que conduce a un asesinato para beneficio personal; nos encontramos con la figura del médico que a pesar de expresar que debe ser castigado no realiza ninguna acción exacta y las personas que conocen el crimen lo dejan en libertad diciendo "está loco". Somos conscientes de que todo se esconde detrás de la magia y la fantasía del género literario, pero esta vez, ¡se acabó la medida!

El pequeño Klaus comienza la historia fanfarroneando y continúa engañando a traición a todos los que encuentra en el camino. Él miente al granjero, al salmista, al pastor al que lleva a la muerte, engaña al Gran Klaus que también lo lleva a la muerte y finalmente se lleva el rebaño de ovejas y se va a casa.

En este cuento, todo lo que se logra se logra con astucia, violencia, engaño, pero nuevamente nadie es castigado, sino que incluso se pasa por normal. La pregunta que nos picó durante todo el análisis fue: ¿Qué aprenden los niños en este caso? ¿En qué idioma podremos explicar toda esa actividad cargada negativamente?

### “La Sirenita”

La Sirenita, otro cuento literario de Hans Christian Andersen estrenado en 1837. Este es un cuento de hada de base mitológica que simboliza la entrada de la mujer al mundo de los hombres cuando el padre está ausente. Aparentemente, este cuento, es al igual de *El patito feo*, es producto de la época en que fue escrito, simbolizando también el intento personal del autor por tener un lugar propio en el mundo. Así, el mensaje sobre el que se asienta el cuento es el fuerte deseo de la protagonista (Ariel) de encontrar su lugar en este mundo y este deseo la lleva más allá de la superficie de su hogar a la tierra de los humanos. En este movimiento y cambios se sienten huellas de alienación, de amor irreversible, pero también de religión. Además de ellos, en la versión antigua de Andersen, se pueden tomar fácilmente mensajes como:

- No renuncies a tus sueños
- No te hagas amigo de personas sospechosas/no confíes en ellas, recuerda (*i como en el Caperucita Roja!*)
- Lo que se dice que se haga, se hará
- Da lo mejor de ti y espera ser recompensado, pero no solo eso...

*"Está bien", respondió la sirena. La bruja le sacó la lengua y la sirena se quedó muda.*

- *El príncipe que a lo largo del cuento dice que ve a la sirenita como su hija finalmente le dice que preferiría casarse con él que con otra princesa.*

La sirenita se enamora del príncipe, hace un pacto abnegado para permanecer cerca de él y lo ve casarse con otra. La segunda parte del pacto es que, si el príncipe se casa con otra, la Sirenita morirá, y en este caso lo único que puede salvarla es clavarle un cuchillo en el pecho al príncipe. Ella no hace tal cosa, incluso muere. A nosotros, nos gustaría recordar que La Sirenita acababa de cumplir 15 años, mientras que Erik, su marido, ¡18! La psicología humanista, en este caso, enfatizaría la observación de la persona en su totalidad y la singularidad de cada individuo. Plantearía suposiciones existenciales de que las personas tienen libre albedrío y están motivadas para alcanzar su potencial y auto realizarse. Pero en nuestro caso, la Sirena no es un hombre y mucho menos una edad para auto realizarse. No creemos que esto pueda aplicarse a Erik, excepto por el hecho de que es un príncipe y los príncipes tienen un estatus especial, al menos en los cuentos de hadas. Siguiendo nuestro juicio, por lo tanto, volver a jugar puede enviar un mensaje completamente equivocado, a los jóvenes al poner otros pensamientos, porque no logran distinguir entre el amor por el niño y el amor por otro individuo, al menos mientras no conozcan el sentimiento de maternidad y paternidad.

Y Úrsula, aunque parece una acérrima antagonista de Ariel, desde una perspectiva feminista representa un personaje que expone las realidades detrás de las expectativas de la sociedad hacia las mujeres y también una relación más real entre hombres y mujeres. Sirve como crítica ideológica, pero su personaje es el de una bruja codiciosa, insensible y malvada que engaña a Ariel. La misma codicia que encontramos en Hans y Gretel.

## 2. Conclusiones y recomendaciones

Los cuentos de hadas son algo más que viejas historias. Manifiestan el círculo sociocultural del que proceden y se introducen tan mágicamente en la infancia de cada uno de nosotros. Los cuentos de hadas sirven para educar, pero en ellas se pueden identificar algunos problemas porque los tiempos cambian y la gente evoluciona. Lo que pensamos sobre estos temas es resaltarlos y usarlos para expresar un mensaje. Los cuentos de hadas pertenecen a un mundo mágico que cada uno de nosotros debería llevar consigo, pero este mundo nunca debe confundirse con la realidad. Al final de este corto y breve análisis de algunos de los cuentos de hadas más escuchados, es comprensible el sonido de las conclusiones, recomendaciones y hallazgos.

Los volúmenes antiguos como *Cuentos de hadas de Hans Andersen*, 1917, *Cuentos de hadas de Grimm*, 1922, *Historias domésticas de los hermanos Grimm* 1886, *Cuentos domésticos* 1884, *Cuentos populares nacionales recopilados de la boca del pueblo*<sup>6</sup> 1942 y *Los cuentos de mamá Ganso*, 1901 permanecen parte indiscutible del fondo dorado de la ficción colectiva. Sus valores artísticos, comunicativos, prácticos, lingüísticos y culturales siguen siendo la piedra angular de la tradición y el patrimonio nacional y mundial. La mayoría de los cuentos de estos volúmenes (*no se puede decir lo mismo de los Cuentos Populares Nacionales Recogidos de la Boca del Pueblo*) han sido proyectados, dramatizados y escenificados como musicales que dotan de emoción, espectáculo y provocan debate y análisis.

Se leen con ganas y curiosidad aún hoy, aunque su túnica mágica ha comenzado a perder el color. Su validez educativa, pedagógica y psicológica, a veces deben ser revisados y evaluados, a veces dejan que desear y en otros momentos deben evitarse hasta su total eliminación. Los valores cognitivos, educativos, artísticos y morales han cambiado, evolucionado y descontextualizado completamente, dañando la forma y el contenido del mensaje y jugando el papel contrario al del principiante.

Todo se mueve y todo necesita adaptarse al ritmo y medios de viaje con los que viaja el tiempo. Esto no significa que se deba ignorar la tradición y la experiencia, pero la nueva forma de vida requiere nuevas oportunidades de tratamiento y aplicación. La lógica que hemos seguido durante esta discusión nos orienta a pensar que los cuentos antiguos que entren en conflicto con cuestiones psicológicas, sociológicas y culturales no deben incluirse en los planes de estudios escolares o, si esto se hace, los grupos de trabajo especializados deben ubicar los tipos de índices ocultos que inconscientemente afectan negativamente esta buena formación humana.

Tener mucha atención y cuidado en la traducción adecuada y de calidad de estos cuentos de hadas no solo para mantener su indiscutible importancia y belleza, sino también para preservar donde se merecen a conocidos coleccionistas como Grimm, Andersen<sup>7</sup> o Perrault.

Se debe tener un cariño especial por los cuentos que se proyectan o dramatizan, no solo en la adaptación sino también en los actores que la hacen y la interpretan, porque los efectos de la dramatización son muy cercanos a los de un buen narrador y ya se sabe que el cuento de hadas es una cara de la moneda; el otro narrador!

Los relatos de siglos pasados conservan la irreplicable necesidad de aquellos tiempos, cuando ella (*el relato*) era a la vez cartero y mensajero; en la actualidad, esta medida ha sido liquidada o disuelta, por lo que se

<sup>6</sup> Tal como lo ha traducido Robert Elsie en *Historical Dictionary of Albania*, Second Edition, Scarecrow Press; 2ª edición 2010, pág. 255.

<sup>7</sup> Andersen no solo fue un auténtico coleccionista de cuentos de hadas. Él también los creó, y ese tipo de cuentos de hadas se llaman cuentos de hadas literarios

necesita un juicio empírico y pragmático en su uso como medio de educación y sensibilización. La forma inicial de los cuentos de hadas se ha transformado y las semillas han caído en terreno más que fértil.

Leer y tratar de percibir los cuentos de hada antiguos bajo este tipo de análisis no sería agradable, porque la magia en la que se envuelven los cuentos es legal. Si tratáramos de ignorarlo, tal vez quizás, no nos sentiríamos bien! Sin embargo, la crítica pedagógica debe estar atenta y cuidadosa en la forma, cantidad y calidad de los cuentos de hadas con el propósito de divulgar la literatura con fines estéticos alusivos a la experiencia del lector.

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## Problems of ukrainian school youth in the conditions of forced migration: Sociological dimensions

### Problemas de los jóvenes escolares ucranianos en el contexto de la migración forzada: Dimensiones sociológicas

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#### Abstract

The purpose of the study is to analyze the sociological analysis of Ukrainian schoolchildren's attitudes towards the educational environment, learning conditions and current problems of adaptation in countries of temporary residence. The methodology used is an interdisciplinary approach that allows to integrate knowledge of different branches of science about the subject to form a holistic picture of the study. The empirical basis of the article is based on the materials of a sociological study of the educational environment, learning conditions and current problems of adaptation "Forced migration 2022 in the eyes of Ukrainian schoolchildren", conducted by an online survey. It is found that European education systems have responded to the challenges at the state level: they adopt regulations, send out recommendations and manuals for teachers, solve the problems of informatization of education, provide schools with specific tools, and increase the number of teachers. It is established that the main problems of schoolchildren abroad are: language barrier; significant differences in educational programs in Ukrainian and foreign institutions; double load (studying in a Ukrainian and foreign educational institution); imperfect



informatization of education; multi-age classes in schools of the host country; studying new subjects for Ukrainian schoolchildren.

**Keywords:** migration, Ukrainian schoolchildren, educational environment, informatization of education, educational problems.

## Resumen

El objetivo del estudio es analizar las actitudes sociológicas de los escolares ucranianos hacia el entorno educativo, las condiciones de aprendizaje y los problemas actuales de adaptación en los países de residencia temporal. Se ha constatado que los sistemas educativos europeos han respondido a los retos a nivel estatal: adoptan normativas, envían recomendaciones y manuales para los profesores, resuelven los problemas de informatización de la enseñanza, dotan a las escuelas de herramientas específicas y aumentan el número de profesores. La base teórica y metodológica del estudio son los principios de los enfoques socio-filosófico, socio-psicológico y sociológico - para generalizar la multidimensionalidad del problema de la educación de los escolares en el contexto de la migración forzada en el marco de la reflexión sociológica. Se establece que los principales problemas de los escolares en el extranjero incluyen: la barrera del idioma; diferencias significativas en los programas educativos en las instituciones ucranianas y extranjeras; doble carga de trabajo de un niño debido a que estudia en una institución educativa ucraniana y extranjera; informatización imperfecta de la educación; diferentes clases de diferentes edades en las escuelas del país de acogida; asistir a lecciones que no se impartieron en una escuela ucraniana.

**Palabras clave:** migración, escolares ucranianos, entorno educativo, informatización de la educación, problemas educativos.

## 1. Introduction

In modern conditions, the role of social and personal factors influencing the adaptation of schoolchildren to the adult world, the conditions for successful learning, and planning for the future is growing significantly. Therefore, the subject of sociological science is traditionally school education, objective and subjective characteristics of the processes of individual development of school youth, problems of informatization of education and social formation of schoolchildren and overcoming obstacles on this path. Prior to the full-scale invasion of Ukraine by Russian troops, sociological study of the causes of migration of the Ukrainian population was relevant mainly in the context of implementing preventive measures to overcome the consequences, as well as to maximize the benefits of the results caused by these processes. As of June 2022, the war of the Russian Federation against Ukraine has forced a total of about 8 million Ukrainian citizens to flee to other countries in search of safety. As of December 20, 2022, the number of Ukrainians who have crossed the border with the EU countries since February 24, 2022, is more than 16.6 million, including about 3 million children (Rayon.Osvita, 2023).

The figures published by the Ministry of Education and Science of Ukraine in January 2023 indicate that as of the beginning of January 2023, there are about 500 thousand Ukrainian schoolchildren abroad. At the same time, as of September 1, 2022, there were 488 thousand of them (Bilenkyi & Kozlovets, 2006).

According to the Center for Public Monitoring and Control, although more than 100 thousand schoolchildren have already returned to Ukraine, the number of students who remain abroad has been constantly fluctuating and amounts to about 620 thousand schoolchildren (Education Ombudsman Serhiy Gorbachev, 2022).

Thus, we have every reason to believe that current migration processes play an extremely important role in the social development of the country, and are even more important for its future. Therefore, the study

of their factors, mechanisms of adjustment, current and future consequences of their impact on the development of Ukrainian post-war society is one of the primary tasks of sociological science.

## 2. Literature Review

Researchers of the problem of migration in Ukraine O. Kurbet (Kurbet, 2020); educational migration (Bezzubko L., Topchii K.) (Bezzubko & Topchii, 2020); migration to the EU countries (Dmytruk B., Chudaieva I.) (Dmytruk & Chudaieva, 2018), intellectual migration by L. Didkivska (Didkivska, 2020), O. Demydenko (Demydenko, 2019), forced migration by E. Libanova. (Libanova, 2018); re-emigration U. Sadova (Sadova, 2015), Z. Smutchak (Smutchak, 2019) and others mostly believe that an important factor determining the course of migration of certain social groups is to ensure stability and achieve constructive interaction created by the relevant social environment, taking into account the totality of the needs of all subjects of interaction. Since any migration usually carries a number of problems for both the host community and the displaced person, in our case, the problem of considering appropriate social and psychological support, mutual understanding and support of newcomers by the host party is actualized.

According to the works of national sociologists N. Hlebova (Hlebova, 2015), K. Oleksenko, I. Khavina (2021), O. Kryvylova et al., (2022), R. Oleksenko, L. Fedorova (2017), V. Nikitenko et al., (2022), V. Voronkova et al. (2022), V. Humeniuk (Humeniuk, 2020), S. Nechitaylo (2019), the most significant and problematic category of migrants from Ukraine in terms of long-term prospects for sustainable social development of the state is Ukrainian pupils and students. Given the current socio-cultural situation in Ukraine, the situation is significantly complicated by the situation of forced migration of many subjects of the educational process. Therefore, based on the general theoretical approaches to the study of personality development in the works of representatives of the humanistic direction, the socio-cognitive theory of self-actualization of Albert Bandura (Bandura, 2006) and the issue of student activity in the context of learning a new generation by J. Charteris, and D. Smardon (Charteris & Smardon, 2018), our focus is primarily on latent changes in the minds of students living in difficult conditions of emigration.

Therefore, the main field of our attention is the perception of the situation in the minds of pupils and students who live in difficult conditions of emigration and make their daily choices in favor of a particular life strategy, including in the field of education.

## 3. Methodology

The theoretical and methodological basis of the study is based on the principles of socio-philosophical, socio-psychological and sociological approaches – to generalize, within the framework of sociological reflection, the multidimensional nature of the problem of teaching Ukrainian schoolchildren in conditions of forced migration, due to a number of factors of political, socio-economic, socio-cultural and socio-psychological nature. In the analytical part of the study, we used the methodology of an interdisciplinary approach, which allows us to integrate knowledge of various branches of science about the subject to form a holistic picture of the study. The sociological study of the attitude of Ukrainian schoolchildren to the foreign educational environment, learning conditions and current problems of adaptation was conducted by an online survey using a questionnaire in Google Form.

The empirical basis of the article is based on the materials of the sociological study "Forced Migration 2022 in the Eyes of Ukrainian School Youth" conducted by the Center for Sociological Research of Melitopol Bohdan Khmelnytsky State Pedagogical University. The sociological study of the attitude of Ukrainian schoolchildren to the foreign educational environment, learning conditions and current problems of adaptation was conducted by online survey using a questionnaire in Google Form among a group of Ukrainian schoolchildren from the temporarily occupied territories (50%) or from the Ukrainian-controlled

territories (50%) of Zaporizhzhia, Kyiv and Kharkiv regions, aged 13-17, who have been abroad for 3-10 months (Poland, Czech Republic, Great Britain, Germany, France, Canada, USA).

According to UN estimates, 3 million children and youth have left the country since the beginning of Russia's full-scale invasion of Ukraine. The largest number of schoolchildren from Ukraine is registered in Poland - over 528 thousand, Germany – about 290 thousand, and the Czech Republic - 70.5 thousand. 30 to 40 thousand Ukrainian children of school age live in Italy, Romania, Spain, and Slovakia. There are countries with very few families: Iceland has 700 children, Montenegro has about 500, Belgium and Malta have less than 300 students (Nechitaylo, 2019).

Most European education systems have responded quickly to the new challenges at the state level: they have adopted regulations, sent out guidelines and manuals for teachers, addressed the problems of informatization of education, provided schools with specific tools, and increased the number of teachers. For example, in the Netherlands, the Ministry of Education, Culture and Science has published a "Training Manual for Working with Children from Ukraine," which provides expertise and assistance in school integration of children. Spain has developed a National Plan for the Education of Ukrainian Students, which provides for a sufficient number of teaching staff. Extraordinary quotas of school staff have been introduced, including assistants who know Ukrainian and can become translators for students from our country.

One of the generally recognized steps is to involve schoolchildren in studying in the country's educational institutions. According to European educators, this speeds up language acquisition, provides access to psychosocial support, and promotes children's participation in the social life of the country where they live. But not all Ukrainian parents share this view. There are those who believe that they will be here for a short time, so they would like to focus on teaching their children according to Ukrainian standards. However, according to the monitoring data, less than a third of those living in countries such as Denmark, Greece, Croatia, Malta and Romania attend local schools. Most refugee children from Ukraine go to school in Ireland - 92%, Spain - 75%, Italy - 71%, the Netherlands - 66%, and Austria - 63% (Education Ombudsman Serhiy Gorbachev, 2022).

However, the problem of re-emigration is likely to be a major challenge for the future of the Ukrainian state in the near future, as only 13% of respondents to a UN survey of Ukrainian refugees reported plans to return to Ukraine permanently over the next three months. Instead, 44% of respondents do not plan to return within the next three months, and 43% are undecided. Of the latter group, 79% plan to stay in the host country (UNHCR, 2022). Therefore, the question is no less relevant: Will children studying abroad return to Ukraine? (Shevchenko, 2022).

However, despite the difficult circumstances of the war, the New Ukrainian School should make every effort to:

- providing conditions for self-determination and self-realization of its students abroad;
- Acquiring worldview knowledge as a product for the future;
- formation of the student as a subject of active social activity in the near future.

With regard to Ukraine's current socio-cultural situation, the situation is significantly complicated by the situation of forced migration of many subjects of the educational process. Therefore, based on the conclusions of school education practitioners, we believe that an important area of sociological study should be research whose target group is direct students - children and adolescents (Maksimenko et al., 2022).

Based on these circumstances, the target audience of our study was internally displaced persons from among Ukrainian students in different countries of Europe and North America.

The obtained quantitative data were processed in IBM SPSS Statistics 23 and Microsoft Office Excel. The methods of this sociological study were chosen: an online panel with a closed IP address.

In accordance with the selected research parameters, the questionnaire "Forced Migration 2022 in the Eyes of Ukrainian School Youth" we used includes three blocks for identifying the above characteristics:

Block I. Subjective aspects of the social and psychological adaptation of Ukrainian schoolchildren in the context of forced migration (questions 3, 9, 11, 12, 13).

Block II. Factors of influence of the new educational environment on the level of schoolchildren's academic performance in the context of migration (questions 6, 8, 10, 14).

Block III. Influences of educational practice of schoolchildren in conditions of forced migration on plans for further education (questions 15, 16, 1).

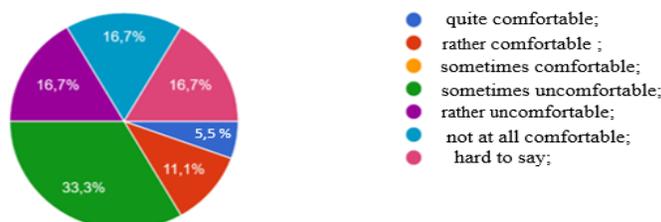
#### 4. Results and Discussion

As a practical application of sociological methods for studying the attitudes of Ukrainian schoolchildren towards the foreign educational environment, learning conditions, imperfect informatization of education, and current problems of adaptation in the context of forced emigration, we present the results of a study that included an online survey of a group of Ukrainian schoolchildren in foreign countries. The group surveyed was made up of schoolchildren aged 13-17 who have been abroad for 3-10 months (Poland, Czech Republic, Great Britain, Germany, France, Canada, and the United States), having left the temporarily occupied territories (50%) or the government-controlled territories (50%) of Zaporizhzhia, Kyiv, and Kharkiv regions. School education abroad was continued by 88.9% of respondents, while 11.1% of respondents did not have this opportunity. Distance learning in Ukrainian schools is being continued by 70.6% of respondents, while 29.4% are studying in schools in the host country.

The main results of the study on the attitude of Ukrainian students to the influence of the foreign educational environment, learning conditions and current problems of adaptation.

Block I. Subjective aspects of socio-psychological adaptation of Ukrainian schoolchildren in the context of forced migration (questions 3, 9, 11, 12, 13).

##### 3. How do you define your emotional state in forced emigration?



**Figure 1.** Self-assessment of schoolchildren emotional state abroad.

Only less than 10% of surveyed students feel completely comfortable abroad; 16.7% feel rather comfortable. A significant part of the survey participants (33.3%) indicate problems with their emotional state, 16.7% of respondents feel extremely uncomfortable, and the same number of respondents have not decided on their assessment (Fig. 1).

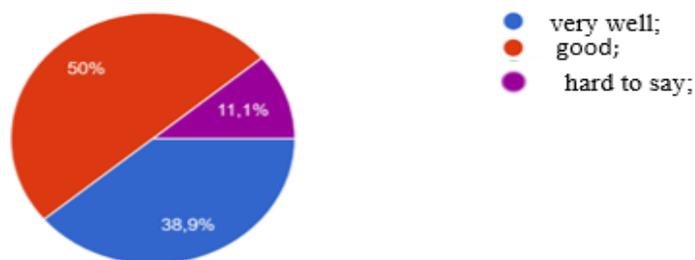
**9. How satisfied are you with your studies in forced emigration?**



**Figure 2.** Assessment of schoolchildren satisfaction with studying abroad.

As we can see, despite the problems with emotional state, about half of the respondents are satisfied with studying in these conditions (11.1% - very satisfied; 44.5% - rather satisfied). The number of extremely dissatisfied with studying abroad is less than 5%, 11.1% are inclined to a negative assessment, and 27.8% have not decided on the answer (Fig. 2).

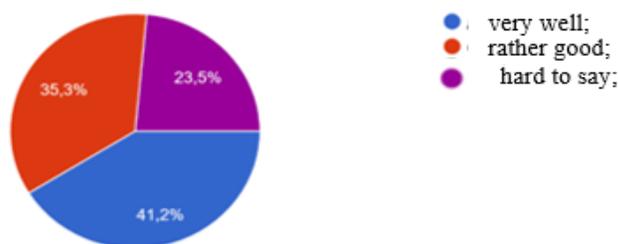
**11. How do teachers treat you in your host country?**



**Figure 3.** Teachers' attitudes towards schoolchildren in the host country.

Students' subjective assessment of teachers' attitudes towards them in conditions of forced stay abroad shows the following: 88.9% define it as good and very good, 11.2% are undecided (Fig. 3).

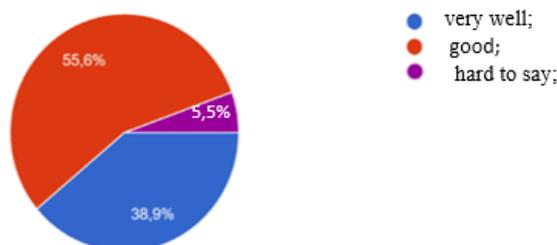
**12. How do students in your new class treat you in the host country?**



**Figure 4.** Students' attitudes toward Ukrainian schoolchildren

The respondents' assessment of the situation with relations in the new class is similar, mostly positive: 41.2% report a very good attitude, 35.3% rate it as good, and 23.5% are undecided (Fig. 4).

## 13. What are your relations with other schoolchildren -emigrants from Ukraine?



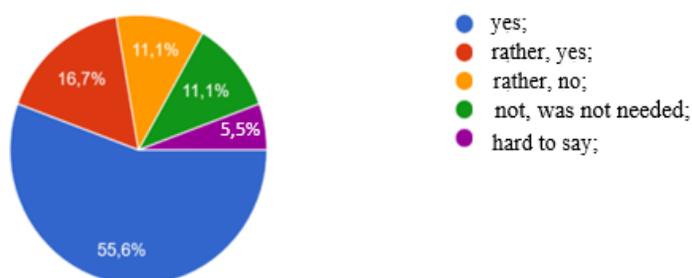
**Figure 5.** Assessment of relationships with other migrant schoolchildren.

Their relationships with other migrant students are considered very positive by 38.9% of respondents, and rather positive by 55.6% of students (Fig. 5).

Thus, summarizing the data obtained on the subjective aspects of social and psychological adaptation of Ukrainian schoolchildren in conditions of forced emigration, we can note the general positive assessment of respondents regarding their current school environment. However, more than half of the survey participants indicate problems with their emotional state. Nevertheless, about half of the respondents are quite satisfied with their studies in these conditions (11.1% - very satisfied; 44.5% - rather satisfied).

Block II. Factors of influence of the new educational environment on the level of schoolchildren's academic performance in the context of forced migration (questions 6, 8, 10, 14).

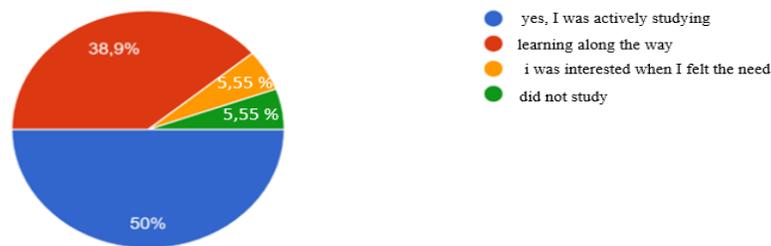
## 6. Did you find the foreign language you learned at school in Ukraine useful?



**Figure 6.** Use of a foreign language learned at school in Ukraine.

Consideration of the factors influencing the new educational environment on the level of schoolchildren's performance in the context of migration allows us to state that more than 70% of respondents used the foreign language knowledge gained in Ukraine, while about 25% did not use this knowledge for various reasons. The vast majority of students (72.3%) made efforts to master the language of the host country (Fig. 6).

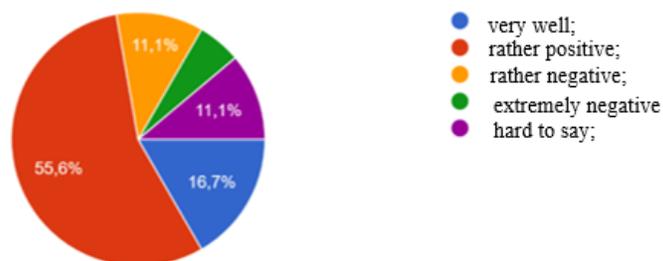
7. Did you try to learn the language of the country you were in?



**Figure 7.** Activity of Ukrainian students in learning the language of the host country

According to the survey, only half of the respondents (50%) actively learn the language of the host country, 38.9% learned it as they communicated, 5.6% were interested only when they felt the need, and 5.5% did not try to learn at all (Fig. 7).

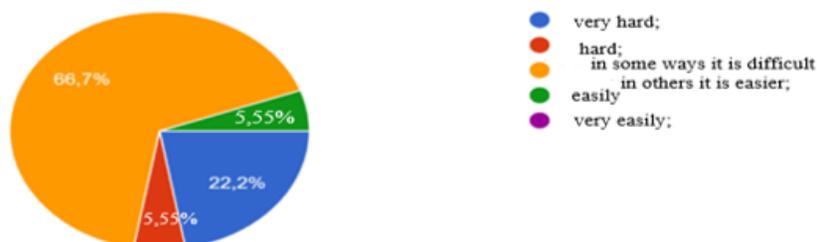
8. How do you assess the success of your studies in forced emigration?



**Figure 8.** Assessment of the success of studying abroad.

Overall, more than 70% of respondents consider their studies to be successful. About 20% of respondents gave a negative assessment of studying abroad. The assessment of the difficulty of studying abroad among the respondents was distributed as follows: an invariant answer (in some ways harder, in some ways easier) was chosen by 66.7% of participants; more than 20% of students consider it difficult and very difficult to study; only about 5% of students found it easy (Fig. 8).

10. How difficult was it for you to study in exile?



**Figure 9.** Assessment of the difficulty of studying abroad

The results of the study show that only 27.7% of respondents still found it difficult to study abroad (22.2% - very difficult, 5.5% - difficult). 66.7% of respondents believe that in some ways it was difficult and in others it was easy to study abroad. And only 5.6% of respondents found it easy to study (Fig. 9).

14. What are the main problems that arose while studying abroad?

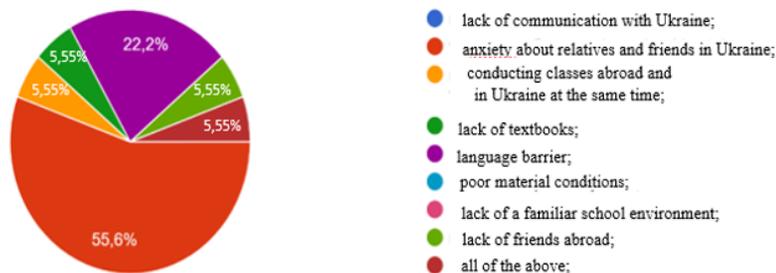


Figure 10. Main factors of difficulties in studying abroad

We can also state that the overwhelming majority of respondents expectedly attributed a difficult emotional state (55.6%) (anxiety for relatives and friends) and the language barrier (22.2%) to the main reasons for difficulties in studying abroad. Out of the rest of the proposed options, 4 positions were noted: material conditions, lack of textbooks, lack of friends, and time coincidence of class hours - about 5% each (Fig. 10).

Block III. Influences of educational practice of schoolchildren in conditions of forced migration on plans for further education (questions 15, 16, 17).

15. What are the main positive aspects of your stay abroad?

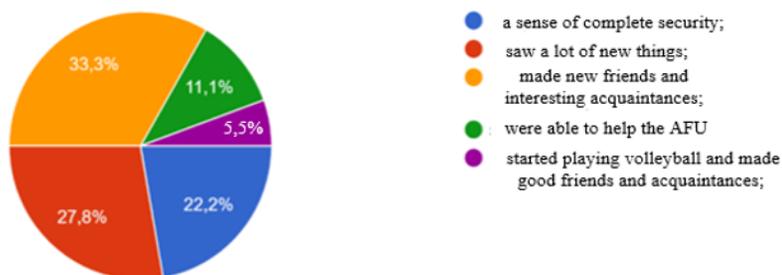
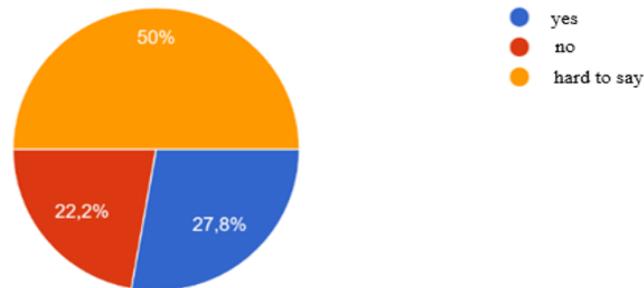


Figure 11. Positive aspects of staying abroad

Among the positive aspects of their stay abroad, 22.2% of respondents mentioned feeling completely safe, 33.3% - the opportunity to make new friends, and 27.8 respondents - to broaden their horizons. It should be noted that 11% of students mentioned the opportunity to participate in helping the Armed Forces of Ukraine (Fig. 11).

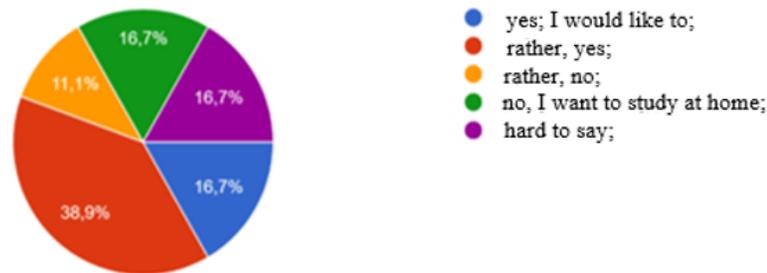
16. Do you want to continue your school education abroad?



**Figure 12.** Desire to continue school education abroad.

27.5% of respondents firmly expressed their desire to continue their school education abroad, 50% are still considering, and only 22.2% of students expect to return home (Fig. 12).

17. Do you have a desire to pursue higher education abroad?



**Figure 13.** Desires and intentions to obtain professional education abroad

About 16.7% of students answered affirmatively about their intention to receive professional education abroad, 38.9% of respondents have a strong desire to do so, and 16.7% are thinking about it. Less than a third of students (27.8%) are inclined to return to Ukraine to continue their education in higher education institutions (Fig. 13).

**Implementation stages**

Our study confirms the main conclusions of a large group of researchers on educational migration (Bezzubko L., Topchii K.) (Bezzubko & Topchii, 2020); migration to the EU (Dmytruk B., Chudaieva I.) (Dmytruk & Chudaieva, 2018), intellectual migration of L. Didkivska (Didkivska, 2020), O. Demydenko (Demydenko, 2019), forced migration of E. Libanova (Libanova, 2018). Libanova (2018); re-emigration by U. Sadova (2015), Z. Smutchak (2019), on the importance of ensuring stability and achieving constructive interaction created by the relevant social environment, taking into account the totality of the needs of all subjects of interaction for displaced social groups. The research methodology offered by modern sociological science (interviews, focus group discussions, online surveys, etc.) makes it possible to describe the features, trends, and main problems of Ukrainian schoolchildren in the context of forced emigration.

Since any migration usually carries a number of problems for both the host community and the displaced person, in our case, the problem of considering appropriate social and psychological support is relevant, so in our survey we focused on three relevant practical aspects:

- social and psychological adaptation of Ukrainian schoolchildren in the conditions of forced emigration;
- the role of the educational environment of the host country in the self-assessment of Ukrainian schoolchildren's performance in the context of emigration;
- the factor of educational practices of Ukrainian schoolchildren in conditions of forced emigration on planning for the near future.

Considering the factors that influence the new educational environment of Ukrainian students abroad, it can be argued that more than 70% of respondents used the foreign language knowledge gained in Ukraine, while about 25% did not use this knowledge for various reasons. The vast majority of students made significant efforts to master the language of the host country. Overall, over 70% of respondents consider their studies to be successful. The assessment of the difficulty of studying abroad revealed the following: 66.7% of participants chose an invariant answer (in some ways harder, in others easier); more than 20% of students believe that it was difficult and very difficult to study; only about 5% of students believe that it was easy. It can also be stated that the vast majority of respondents, as expected, attributed a difficult emotional state (55.6%) and a language barrier (22.2%) to the main reasons for the difficulties of studying abroad. No more than 5% of respondents consider other options important: material conditions, lack of textbooks, lack of friends, and coincidence of class schedules.

These works confirm the conclusions of the analytical materials on education in the conditions of war by O. Maksimenko (Maksimenko, 2022) and S. Shevchenko (Shevchenko, 2022) that the socio-educational problem of pupils and students who are displaced is actualized by latent changes in the minds of students living in difficult conditions of emigration. It is not without reason that personality orientations in the process of going abroad are associated with changes in motivational aspects, in particular, the vast majority of students are in one way or another significantly influenced by the educational and social environment of the countries of temporary residence. Their desire to continue their school education abroad was firmly expressed by 27.5% of respondents, 50% are still thinking about it, and only 22.2% of students expect to return home. About 16.7% of students affirmatively stated their intention to receive professional education abroad, 38.9% of respondents have a strong desire to do so, and 16.7% are still thinking about this issue. Less than a third of students (27.8%) are inclined to return to Ukraine to continue their studies at a higher education institution.

As we can state, most European education systems have responded quickly to new challenges at the state level: they adopt regulations, send out recommendations and manuals for teachers, solve problems of informatization of education, provide schools with specific tools and increase the number of teachers. One of the generally recognized steps is to involve students in the country's educational institutions, which, according to European educators, speeds up language acquisition, provides access to psychosocial support, and promotes children's participation in the public life of the country where they live. However, not all parents of Ukrainian students share this view. Therefore, based on the identified socio-psychological, socio-pedagogical, and sociological approaches to the problem of education of schoolchildren - forced migrants, at this stage of the study we can state that important parameters of the sociological study of the state of education of Ukrainian schoolchildren in these conditions are both subjective characteristics and a number of external factors - socio-economic, socio-cultural, socio-psychological and technological.

We believe that today the problem of returning students from forced emigration is also actualized by the fact that Ukrainian society is entering a new historical and social space in the context of an extreme increase in the pain thresholds of most social strata and the transformation of the worldview of society, which allows us to attribute the use of sociological methods to study the attitude of Ukrainian students towards the

foreign educational environment, learning conditions, imperfect informatization of education and actual problems of adaptation in conditions of forced emigration to the necessary and timely tasks of sociological science.

## 5. Conclusions

In this context, our data on the subjective aspects of the social and psychological adaptation of Ukrainian schoolchildren in the context of forced emigration indicate a generally positive assessment of the respondents regarding their current school environment. However, more than half of the survey participants indicate significant problems with their emotional state. Children have their own opinions, and they can be decisive.

It is obvious that without qualified professional help, many children will not be able to make an informed decision and return home safely, where they have experienced so much pain and fear. Therefore, it is important to set up hotlines in schools, qualified assistance groups, and organize individual meetings both online and offline to provide students and their parents with advice on the educational aspects of the re-emigration process.

For children far from their homes, every piece of news, every online lesson, for example, on the history of Ukraine, the Ukrainian language, Ukrainian art, as well as participation in events to support the Ukrainian state in its fight against the aggressor, is important.

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## Formation of critical thinking among ukrainian students in the context of european integration

### Formación del pensamiento crítico entre estudiantes ucranianos en el contexto de la integración europea

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### Abstract

The aim of the article is to study and analyze the peculiarities of formation of critical thinking among Ukrainian students in the context of European integration. It has been proven that one of the main problems in developing critical thinking skills is creating appropriate pedagogical conditions. It is noted that educators should adhere to the principles of critical saturation of educational information and critical correctness. The analysis of the state of the problem of developing critical thinking skills among university students allows us to state that despite the existence of a significant number of scientific publications on the topic, there are several unresolved issues regarding the development of critical thinking skills, including its signs, criteria, indicators, and levels of development, diagnostic tools, a qualitative adaptation of Western

technologies to the domestic education system, and the development of optimal and effective technologies for developing critical thinking skills.

**Keywords:** critical thinking, higher education, European integration, technologies adaptation, educational re-orientation.

## Resumen

El objetivo del artículo es estudiar y analizar las peculiaridades de la formación del pensamiento crítico entre los estudiantes ucranianos en el contexto de la integración europea. Se ha comprobado que uno de los principales problemas para desarrollar habilidades de pensamiento crítico es crear las condiciones pedagógicas adecuadas. Se observa que los educadores deben adherirse a los principios de saturación crítica de información educativa y corrección crítica. El análisis del estado del problema del desarrollo de habilidades de pensamiento crítico entre los estudiantes universitarios permite afirmar que a pesar de la existencia de un número importante de publicaciones científicas sobre el tema, existen varias cuestiones no resueltas respecto al desarrollo de habilidades de pensamiento crítico, entre ellas su signos, criterios, indicadores y niveles de desarrollo, herramientas de diagnóstico, una adaptación cualitativa de las tecnologías occidentales al sistema educativo nacional y el desarrollo de tecnologías óptimas y efectivas para desarrollar habilidades de pensamiento crítico.

**Palabras clave:** pensamiento crítico, educación superior, integración europea, adaptación de tecnologías, reorientación educativa.

## 1. Introduction

In the context of implementing Euro-integration educational processes, there is a re-orientation of education, which requires teachers to have not only theoretical knowledge but also the ability to critically evaluate and variably apply the content, forms, and methods of teaching, taking into account the interests and abilities of the students.

Therefore, one of the most essential tasks of higher education institutions is to develop critical thinking and the ability of future professionals to adapt to different conditions quickly and find ways to solve professional and social tasks in any non-standard situations. Information technologies have significant potential in developing students' critical thinking, the use of which in the educational process requires the readiness of teachers and students for severe transformations that meet the modern requirements of a rapidly changing information society.

The emergence and development of an information society require a wide application of information technologies in education, which is determined by many factors, such as:

- implementing information technologies in modern education significantly accelerated the transfer of knowledge and accumulated technological and social experience of humanity from generation to generation and from one person to another;
- by improving the quality of teaching and education, information technologies enable a person to adapt more successfully and quickly to the environment and social changes;
- the active and effective implementation of information technologies in education is essential in creating a new education system that meets information society's requirements and modernizes the traditional education system.

Information technologies are a set of methods and technical means for collecting, organizing, storing, processing, transmitting, and presenting information, which expand people's knowledge and develop their abilities to manage technical and social processes. They are object-oriented systems that represent on the screen a model of an information environment of a specific subject orientation in the form of a set of objects under study and connections between them.

The functional capabilities of this environment enable various transformations of the researched objects using a rich toolkit of technological operations, including experimentation to test hypotheses, investigation of patterns, development of algorithms, prediction of results, meaningful interpretation of data, etc., all of which contribute to the formation of students' critical thinking skills.

An important feature of information technologies is the use of visualization and computer graphics tools, which not only enhance the level of understanding of information by opening up fundamentally new learning opportunities but also serve as a powerful tool for cognition and an effective means of enhancing the intellectual abilities of future specialists. They enable the placement of information on the screen in a convenient way for analysis, working with multiple objects simultaneously, visually observing changes in conditions or parameters, changing the size of objects, highlighting the most critical components, etc. Furthermore, the learning process is not controlled by the program proposing a particular presentation or arrangement of objects but rather by the students, who, according to their own understanding of internal connections and patterns being studied, carry out these actions and thereby become active participants in the learning process, as the program requires active management from them.

Information technologies effectively develop students' self-control, self-evaluation, checking solutions, comparing them with task conditions, and more. They can immediately see the computer's reaction to their actions and correct errors without waiting for the teacher's feedback. Such immediate feedback stimulates mental activity, encourages an independent search for errors in one's own actions, and corrects ways to solve a particular task. At the same time, information technology enables each student to recognize the need for self-control and self-evaluation of their actions. The program itself cannot provide a correct solution to the task. It only helps the user by automating the routine tasks of entering, processing, and presenting information, offering many special tools. It is up to the student to choose the option they consider necessary.

Therefore, the effectiveness of using information technology as a means of developing critical thinking skills in future professionals is determined by the use of human intelligence rather than the program. The actions related to planning, organizing, structuring information, analyzing, evaluating, and making optimal decisions remain with the user, who must possess theoretical knowledge of the studied subject and relevant skills to execute them. It, in turn, allows for more productive use and development of students' intellectual abilities, stimulating and activating mental activity and forming critical thinking skills.

This article **investigates** the peculiarities of critical thinking formation among Ukrainian students in the context of European integration.

## 2. Theoretical background

The theoretical background of the study includes the statements made by the following scholars: Ogrodzka-Mazur, E., & Saukh, P. (2020), Sergii V. Savchenko, Svitalina O. Shekhavtsova, Vladimir I. Zaselskiy (2020), Sydorenko, V. V., Popova, A. B., Rehesha, N. L., Sinenko, O. O., Trynko, O. I. (2021), Emanuel, T.L.F. (2013), Vasilyuk, A., & Day, M. (2019), Kievišas, J., & Otych, O. M. (2019), Kremen, V. H. et al., (2020); Kremen, V. H. (2021), Kushnir, V. (2001), Lugovyi, V. I., Saukh, P. Yu., & Talanova, Z. V. (2021); Lugovyi, V. I., Sliusarenko, O. M., & Talanova, Z. V. (2021); Lugovyi, V., & Petroye, O. (2021); Lugovyi, V., & Talanova, Z. (2020).; Lukianenko, D. H., & Antoniuk, L. L. (2019),

Ponomarenko, V. S., Klebanova, T. S., & Guryanova, L. S. (2021), I.V. Stavytska National Technical University (2012), Terno, S. O. (2009), Tiaglo, O. V., (2008), Khachumyan, T. (2005).

The analysis of the scientific literature confirms the idea that the natural possibilities of developing each individual's thinking are implemented in the process of his interaction with the outside world, his knowledge of objects and phenomena, and the assimilation of the mental achievements of mankind. In the process of learning, students develop cognitive interests, mental actions and operations, and the ability to think. According to the scientific works reviewed, the purpose of modern education is not only to provide knowledge but also to teach independent thinking in order to develop the necessary competencies. In terms of the problem under consideration, the following issues are relevant:

- verbal-logical thinking as one of the types of thinking characterized by using concepts and logical structures; it functions on the basis of linguistic means and represents the latest stage of historical and ontogenetic development of thinking; various types of generalizations of Lugovyi, V., & Petroye, O. (2021); Lugovyi, V., & Talanova, Z. (2020).; Lukianenko, D. H., & Antoniuk, L. L. (2019), Ponomarenko, V. S., Klebanova, T. S., & Guryanova, L. S. (2021), I.V. Stavytska National Technical University. (2012), Terno, S. O. (2009), Tiaglo, O. V., (2008), Khachumyan, T. (2005) are formed and function in its structure;
- creative thinking, which is characterized by creating a subjectively new product and new formations in the course of cognitive activity related to motivation, goals, evaluations and meanings; it differs from the processes of applying existing knowledge and certain skills characteristic of reproductive thinking;
- visual and figurative thinking, which is connected with representing situations and changes in them; it is used to reproduce the fullest possible variety of actual characteristics of an object; its important feature is the establishment of unusual.
- "incredible" combinations of objects and their properties; it is one of the stages of ontogenetic thinking development [ibid.].

From the philosophical point of view (Ogrodzka-Mazur, E., & Saukh, P. (2020), Sergii V. Savchenko, Svitlana O. Shekhavtsova, Vladimir I. Zaselskiy (2020), Sydorenko, V. V., Popova, A. B., Rehesha, N. L., Sinenko, O. O., Trynko, O. I. (2021), thinking is an active process of reflecting the objective world in concepts, judgments, theories, etc., related to the solution of certain tasks, the highest product of a specially of organized matter – the brain.

It should be noted that in the analyzed scientific works, thinking is connected with social development; it arises in the process of people's productive activity and provides an indirect reflection of reality; it has a social nature; it exists only in connection with labor and, what is more important, speech activity, which is characteristic of human society.

Thinking is carried out in close connection with speech, and its results are recorded in language. It is characterized by such processes as: abstraction of essential features from non-essential ones and from the objects themselves, analysis and synthesis of imaginary and mental objects, setting certain tasks and searching for ways of solving them, generalization, classification, hypothesizing, ideas, etc.

The result of the thinking process is always a certain opinion. Emanuel, T.L.F. (2013), Vasilyuk, A., & Day, M. (2019), Kievišas, J., & Otych, O. M. (2019), Kremen, V. H. et al., (2020); Kremen, V. H. (2021), Kushnir, V. (2001), Lugovyi, V. I., Saukh, P. Yu., & Talanova, Z. V. (2021); Lugovyi, V. I., Sliusarenko, O. M., & Talanova, Z. V. (2021); Lugovyi, V., & Petroye, O. (2021); Lugovyi, V., & Talanova, Z. (2020).

As a result of the analysis of numerous publications on the issue of critical thinking development, it has been established that although authors use different definitions of the concept, they all have a common

essential component. Critical thinking involves evaluative cognitive activity, i.e., verifying the content of acquired information. Differences in the provided definitions relate to the criteria for evaluating the acquired information. Some scientists consider the criterion to be the subject of cognition, accepted samples, and standards, while others propose to evaluate based on the results of the activity. In the framework of this study, we adhere to the following working definition: critical thinking is evaluative-reflexive cognition of the surrounding reality, which allows a person to formulate their own views, form concepts, and beliefs based on the available and known knowledge (facts) of the subject of cognition.

### 3. Methods

The conducted research employed several general scientific methods to achieve its objectives. These methods included the comparative method, analytical method, historical method, experimental method, and literature review method. The comparative method allowed for an analysis of the impact of critical thinking on the pedagogical sphere by comparing different approaches and practices. Through the analytical method, complex educational phenomena related to critical thinking were deconstructed and examined in detail. Researchers explored various aspects of critical thinking to gain a comprehensive understanding. The historical method facilitated an investigation into the historical development and evolution of critical thinking in the pedagogical sphere. By studying its origins and progression over time, researchers could contextualize current practices and identify underlying factors influencing its implementation.

The experimental method was employed to conduct controlled experiments or studies that aimed to measure the impact of critical thinking on teaching and learning in high schools. Through this method, researchers could gather empirical evidence and establish causal relationships between critical thinking interventions and educational outcomes. The literature review method involved a comprehensive analysis of existing academic literature, research studies, and publications pertaining to critical thinking in education. By synthesizing and critically evaluating previous works, researchers identified trends, knowledge gaps, and areas requiring further investigation. This method provided a solid foundation of existing knowledge and informed the direction of the study. By employing these general scientific methods, the article successfully achieved its aim of exploring the relationship between critical thinking and the pedagogical sphere, generating new insights, and contributing to the existing body of knowledge in the field of education.

### 4. Results

Developing critical thinking has always been and remains one of the main goals of higher education. However, in the context of modern society's digitalization, the education system's technological base and the learning process's significant changes (where students got autonomy and opportunities for obtaining information of varying quality from various sources, often conflicting and not entirely reliable one, which complicates the objective reasoning and conclusions) arise the new aspects of the problem, which necessitate appropriate research of the process of forming students' critical thinking.

The problem of developing students' critical thinking is relevant worldwide. The task of modern universities is to create such learning conditions that would help students and graduates of higher education institutions possess critical thinking at an advanced level and be able to find solutions to the most important tasks. Critical thinking allows for the most effective application of innovative technologies, considering students' individual characteristics and the social conditions of their development. Training highly qualified specialists capable of developing and implementing new methods and technologies for developing students' critical thinking is necessary to solve this task effectively.

The development of students' critical thinking is particularly crucial in the context of higher professional education. Many university students often need help to perform tasks that require intellectual effort and critical thinking skills. Since most students only perceive new information in a ready-made form and refrain from actively participating. Thus, students remain passive, and their cognitive activity is limited to simply reproducing the information they receive.

As a result, it is necessary to radically change the form of conducting classes from traditional to non-standard in the educational policy of our country. It is not enough to introduce a separate course on critical thinking or explain how it works but to implement modern methods of developing critical thinking in specific practical classes to make teaching critical thinking effectively.

A personality with developed critical thinking has the following characteristics:

- the ability to form their own opinion: individual position is based on critical assessment of the situation and circumstances, formed based on data analysis and comparison, not taken "on faith" but initially doubted and verified;
- the ability to choose to seek original, new ways of solving problems, the most effective development strategies: to identify problems, search and find alternative ways to solve them;
- the ability to analyze and make a self-analysis – to critically evaluate not only others but also oneself: the ability to engage in constructive internal and interpersonal dialogue, to listen to one's self, to analyze the course of one's life, to evaluate the results of one's actions, to identify and correct one's own mistakes.

Critical thinking can and should be taught. Therefore, it is necessary to understand the nature of critical thinking development, i.e., the stages a person goes through to improve one's thinking.

In order to think critically, every individual must go through several levels of development of critical thinking. The quality of intellectual thought can be achieved through the passage of specific levels of development.

Problems associated with thinking lead to difficulties in solving life tasks. A person without critical thinking skills cannot evaluate the quality of their thinking and, therefore, cannot improve it. It is only possible to improve the quality of thinking with awareness. The lack of self-control in the process of thinking, superstitions, and mistakes depress the quality of thinking.

The peculiarity of the second level of the emergence of critical thinking is that the individual begins to realize the decisive role of thinking in their life. The individual enters the initial process of reflection, tries to control their thinking, and becomes aware of the mistakes that arise from erroneous uncritical thinking. There appears to be primary conscious thinking as a concept, conclusions, assumptions, and viewpoints, as well as the following standards for evaluating thinking, such as:

- clarity;
- accuracy;
- relevance;
- logic, and so on.

In the stage of beginning critical thinking, an individual accepts the challenge to address various problems. The individual becomes aware of problems in their thinking and attempts to understand and improve their thinking. Based on the initial understanding of their thoughts, improvement occurs, but there still needs to be more ideas about the depth of the problem. The main problem at this level is the need for more

systematic thinking. Therefore, the main task at this level is a conscious search for methods of developing thinking and using a system to achieve a goal.

At the level of practical critical thinking, an individual is distinguished by the ability to understand the narrowness of their thinking and attempts to solve problems globally and systematically. The individual feels the need to practice improving their thinking regularly and, through systematic analysis, approaches improving their thinking activity. However, there still needs to be more ideas about more profound levels of thinking. The main task at this level is to develop the necessity of systematic thinking practice.

A characteristic feature of advanced critical thinking is a self-analysis of all aspects of an individual's life and self-control over their egocentrism. The individual clearly sees the relationship between thoughts, feelings, and desires, understands that critical thinking affects the quality of life, and thinks accurately, clearly, and logically.

Advanced critical thinking promotes understanding of an individual's strengths and weaknesses, identification of egocentricity, and effective use of a range of strategies for its control. At the stage of mastering critical thinking, an individual takes responsibility for their thinking, doing so consciously and constantly improving strategies of cognitive activity. Next, the person develops their thinking to the level of awareness. At this stage, the individual has rich self-assessment experience, is inclined towards fair thinking, and has a high level of control over their egocentric nature, understanding the complex interrelationship between thoughts, emotions, and behavior.

A person with improving critical thinking skills possesses a high degree of intellectual humility, honesty, perseverance, courage, empathy, autonomy, responsibility, and fairness. In addition, there is a high level of integration of fundamental values, beliefs, desires, emotions, and actions.

Critical thinking is a complex and multidimensional phenomenon. Understanding its nature and development contributes to effectively acquiring knowledge and skills and thinking correctly, analyzing, arguing, and making correct decisions. Levels of thinking are like a puzzle with pieces that can be combined in various ways. To assemble this puzzle, one must know how the pieces (thinking) work together to ensure they work correctly.

At the current stage of university education, the quality of thinking must be the highest priority, affecting the quality of life. Therefore, the joint work of the teacher and the student in the quest to improve the quality of mental activity leads to the highest goal - a continuous process of learning and self-improvement.

We offer classes to develop students' critical thinking.

Structure of the lesson

Critical thinking techniques are interesting because they can be used every day and in any class. The structure of such a lesson is quite simple:

1. Challenge.

It's the introductory part of the lesson. It is necessary to update the background knowledge: encourage students to tell you what they have already learned about the topic and what they can learn. This way you create the ground for learning new knowledge.

What teaching methods can be used? Brainstorming, association bush, cluster, idea basket, prediction tree, Venn diagram, etc.

## 2. Comprehension.

It's the basic part of the lesson. The teacher introduces the new information to the students, and it is important to help them organize the knowledge they have gained. Encourage students to ask questions, try to apply the new knowledge in practice, share their expectations and results, and draw conclusions.

What teaching methods can be used? Concept mapping, jigsaw, teaching by learning, T-table, text mapping, discussion, INSERT, etc.

## 3. Reflection.

The last part of the lesson is actually a summary. This is the most significant stage, during which the main ideas of the lesson are systematized, summarized and interpreted. An important aspect is the exchange of opinions between students and the expression of personal attitudes towards what they have learned.

What teaching methods can be used? Logbook, senkan, fishbone, opinion scale, PRESS, conceptual table, etc.

We use methods of critical thinking development in practice

Let's now see how you can use these teaching methods in practice.

Stage one: a challenge. Encourage students to brainstorm. Divide them into teams and give them the task of making assumptions about the role of the state in forming economic strategy and what it is responsible for. Students should write down all their thoughts, and then each team will present their opinions. The team with the most accurate statements wins.

Stage two: comprehension. Focus on the topic of the lesson. The teacher explains what role the state actually plays in a market economy, what is the basis for key decisions, and what factors can influence the state of affairs. Here you can use the "Find the mistake" technique, deliberately providing a false hypothesis. Divide students into groups to discuss this hypothesis and find answers to the following questions: "do you agree with this statement", "how can you support your opinion", "offer your own vision of economic processes". One student in each group should act as an analyst, whose task will be to identify opposing viewpoints and record key arguments. Give him a secret assignment: let the analyst observe how the group members come to particular conclusions.

Then the analysts of the separate groups should unite into one team and track the stages of developing students' ideas and arguments. Based on the outlined, a conclusion can be drawn: how exactly was the choice made in favor of one or the other viewpoint? This task is quite difficult, so the teacher should help students. After that, you can listen to the reports of the teams, which have to present their point of view, arguing for it. The winner is the team that not only has made the most correct conclusions, but also managed to provide comprehensive arguments. You should take into account the opinion of analysts.

Stage three: reflection. At this stage, you can offer students another exercise based on the INSERT method. For this purpose, after the end of the story, highlight the main points – tell the students to write them down and put the corresponding marks next to them:

- + (I knew it);
- (I did not know that);
- ? (This surprised me);
- ! (I would like to know more about this).

After that, the teacher asks students to identify what they learned in the class, what was most interesting, what they would like to hear more about, and to evaluate their knowledge on a 5-point scale.

As you can see, developing critical thinking is not only useful but also interesting. Moreover, students will definitely like this structure of the lesson.

## 5. Discussion

We agree with well-known American scientist Richard Paul put forward the following idea for the development of critical thinking:

- during the development of critical thinking, each individual goes through several specific and predictable levels.
- progression from one level to another depends on the individual's readiness for the conscious development of critical thinking.
- success in education is closely related to the quality of an individual's intellectual activity (Paul, 1990).
- during the development of critical thinking, there can be possible regressions in intellectual activity (Talanova et al., 2021).

True critical thinking should be demonstrated in all areas of an individual's life, as the quality of their life depends mainly on their ability to think critically, not only in academic areas but also in many practical areas of life.

There are six stages of critical thinking development, according to Richard Paul:

- stage 1: Unreflective thinking
- stage 2: Challenged thinking
- stage 3: Beginning thinkers
- stage 4: Practicing thinkers
- stage 5: Advanced thinkers
- stage 6: Master thinkers

A defining feature of the first or unreflective level of thinking is ignorance of the crucial role of thinking in a person's life (Paul, 1990).

Developing critical thinking skills in students is a crucial aspect of education, as it empowers them to think independently, evaluate information critically, and make informed decisions. However, creating the appropriate pedagogical conditions for fostering critical thinking poses challenges that need to be addressed. Teachers play a vital role in facilitating the development of critical thinking by providing opportunities for students to analyze, question, and reflect on the presented material. The principles of critical saturation and critical correctness should guide the delivery of educational information, encouraging students to evaluate and assess it objectively.

## 6. Conclusion

One of the main problems in developing critical thinking skills in students is creating the appropriate pedagogical conditions. Developing and fostering critical thinking skills in students requires developing their ability to confidently navigate the presented material (to the extent of not accepting educational information without reservation or blindly, to be able to assess the degree of its truthfulness and relate it to what is known, understood, and accepted). The student should be focused on a comprehensive analysis and understanding of external information, identifying hidden deep internal characteristics and reasons for

certain phenomena that cannot be readily perceived. Teachers should adhere to the principles of critical saturation of educational information and critical correctness. On the one hand, critical saturation of educational information involves the presence of formal and assertive sense-seeking fragments in reasonable quantities, which encourage students not to believe but to evaluate the proposed judgments critically.

On the other hand, critical statements by students require compliance with the requirement of argument truthfulness. Conforming educational information to the criteria listed above is only one of the necessary conditions for developing students' critical thinking skills. Thus, the analysis of the state of the problem of developing critical thinking skills in university students allows us to state that despite the existence of a considerable number of scientific publications on the subject, there are several unresolved issues regarding the development of critical thinking: signs of critical thinking, criteria, indicators and levels of its development, diagnostic tools, a qualitative adaptation of Western technologies to the national education system, development of optimal and effective technologies for forming the critical thinking skills of university students.

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## Methodological aspects of forming project competence in the process of professional training of music teachers

### Aspectos metodológicos del proyecto de formación de competencias en el proceso de formación profesional del docente de música

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#### Abstract

The objective of this article is to identify the methodological characteristics involved in developing project competence among music students who are preparing to become future specialists. The study employed the analytical and bibliographic method to review the scientific literature on the formation of project competence in artistic specialties. Various methods were used for data analysis and processing, including induction, deduction, information analysis and synthesis, systemic and comparative analysis, logical and linguistic analysis, abstraction, and idealization. The study identified the theoretical aspects of project competence formation that are deemed crucial. It also provided perspectives from both scientists and practicing music teachers on key aspects of this issue. The findings highlight the significance of project competence in preparing future music teachers to meet the evolving needs of diverse fields such as science, technology, business, and the arts. Developing project competence among music students can contribute



to their cultural, spiritual, social, and creative engagement, enabling them to implement professional knowledge effectively in the broader socio-cultural context. Overall, this article emphasizes the importance of enhancing the professional training of future art teachers, especially in fine arts. It suggests that integrating project competence development into the curriculum can lead to the meaningful training of art teachers, fostering their abilities to meet the demands of contemporary society and contribute effectively to various domains.

**Keywords:** music teacher, professional training, project competence, methodological work, criteria for methodological developments.

## Resumen

El objetivo de este artículo es identificar las características metodológicas involucradas en el desarrollo de la competencia proyectual entre estudiantes de música que se preparan para convertirse en futuros especialistas. El estudio empleó el método analítico y bibliográfico para revisar la literatura científica sobre la formación de la competencia proyectual en las especialidades artísticas. Se utilizaron varios métodos para el análisis y procesamiento de datos, incluyendo inducción, deducción, análisis y síntesis de información, análisis sistémico y comparativo, análisis lógico y lingüístico, abstracción e idealización. El estudio identificó los aspectos teóricos de la formación de competencias de proyectos que se consideran cruciales. También proporcionó perspectivas tanto de científicos como de profesores de música en ejercicio sobre aspectos clave de este tema. Los hallazgos resaltan la importancia de la competencia del proyecto en la preparación de futuros profesores de música para satisfacer las necesidades cambiantes de diversos campos como la ciencia, la tecnología, los negocios y las artes. El desarrollo de la competencia de proyectos entre los estudiantes de música puede contribuir a su compromiso cultural, espiritual, social y creativo, permitiéndoles implementar el conocimiento profesional de manera efectiva en el contexto sociocultural más amplio. En general, este artículo enfatiza la importancia de potenciar la formación profesional de los futuros profesores de arte, especialmente en bellas artes. Sugiere que la integración del desarrollo de competencias de proyectos en el plan de estudios puede conducir a la formación significativa de profesores de arte, fomentando sus habilidades para satisfacer las demandas de la sociedad contemporánea y contribuir de manera efectiva a varios dominios.

**Palabras clave:** profesor de música, formación profesional, competencia proyectual, trabajo metodológico, criterios para desarrollos metodológicos.

## 1. Introduction

The analysis of scientific papers on the topic of the study has led to the conclusion that there is a significant body of knowledge and experience related to the problem of the professional competence of art teachers, which also indicates the insufficient development of this issue. In particular, the question of aesthetics and technical, including the design competence of the future art teacher remains unanswered. The development of society, the rapid updating of knowledge, and the increasing demand for communication skills increase the requirements for higher education to train a competitive specialist, professional, and personality capable of performing professional activities at the highest level. The process of training art teachers in higher pedagogical schools is being actively modernized. Therefore, the search for ways to improve the systemic organization of art teacher training based on the traditions of art education and scientific and methodological achievements is considered relevant. It is also crucial to consider the preservation of achievements and pedagogical and methodological assets in the field of art pedagogy, as well as the experience gained from training specialists in pedagogical colleges.

The theoretical part of this study substantiates the relevance, key elements, and nature of the project component in the professional training of a future music teacher.

The practical part of the study involves evaluating the most critical competencies that primarily determine the quality of a music teacher's work. It examines the factors that serve as the basis for prioritizing methodological work for the further development of music teachers. Additionally, the practical part highlights the most important areas of methodological and scientific research related to the educational process of students majoring in music, as well as the most important criteria for methodological developments for the professional training of music teachers. The questionnaire helped identify the most promising forms of practical work with students majoring in musical art that require methodological development. Moreover, it assisted in determining the topics of methodological development projects that are in high demand among students majoring in artistic specialties.

According to the results of the study, conclusions can be drawn regarding the issues under investigation. In particular, it has been established that the main competencies that primarily determine the quality of a music teacher's work are general cultural, social, practical, and professional abilities. In addition, the factors that stimulate art education include the provision of developmental learning and systematic learning activities. These factors are crucial in achieving the goals of art education and serve as the basis for developing priority areas for the further professional development of music teachers. Currently, the main areas of methodological research in the artistic sphere are projective and constructive management skills of future music teachers. The study enabled the establishment of important criteria for methodological developments in the professional training of music teachers. These criteria include a qualitative correlation between the content, forms, methods, techniques, and means of pedagogical control, as well as the formation of a material and spatial environment that facilitates the successful completion of educational tasks. Furthermore, the most promising forms of practical work with students studying music and in need of methodological support are master classes conducted by teachers and practicing artists. At the same time, the greatest need among students of artistic specialties today is for the methodological development of projects. These developments should focus on the organization of project activities in special training and methods of music education.

## 2. Literature review

The introduction of a competency-based approach in art and pedagogical education involves the training of art teachers in a new formation. Moreover, it is aimed at implementing personnel-oriented training of a professional, forming the readiness and ability of an art educator to effectively carry out professional activities following universal aesthetic values and ideological positions. The main focus is on the learning outcome, and, unlike the "knowledge approach", the outcome is not a set of acquired knowledge, skills, and abilities, but the ability of a person to act in different pedagogical situations (Khyzhko, 2023), (Abramauskienė, 2019).

The projective approach involves predicting the future productive activity of a music teacher using innovations in the theory and practice of art education. In determining the factors of the projective approach, the competence-based pedagogical paradigm grows out of the traditional or cognitive-informational paradigm. However, in contrast to it, it recognizes the impossibility of infinite expansion of information and focuses on what is most valuable, useful, and constructive, which will be passed on to the next generations (Synevych, 2018), (Tao, 2018).

Scientists define the project method as a way of organizing learning activities aimed at solving a problem that is personally significant for students, in the form of a certain end product. The essence of the method is to arouse students' interest in a particular problem and to acquire knowledge and skills to solve it. The same element of educational influence can act as a method and a means, depending on the perspective viewed (Anderson & Taner, 2023), (Miksza et al., 2021).

The means of education are the main types of pedagogically purposeful organized activity of the personality that is being formed and developed. On the example of such varieties as a master class and artistic design, it is possible to show the didactic possibilities of art projects as a means of forming the professional skills of a future fine arts teacher. Among the various means of activating students' artistic and creative activity, such a form of organizing the educational process as a master class has recently proven itself. It allows one to combine the perception of works of art with direct participation in the creative process itself, mastering certain techniques of creative or artistic and pedagogical activity (Briot & Pachet, 2020), (Hilt et al., 2019).

The project activity of a music teacher involves forming a system of requirements and incentives to activate students' cognitive activity, utilizing diverse creative tasks to update the knowledge, skills, and abilities acquired by students in the field of performance, as well as shaping the further development of the creative team. In the process of implementing the project activity, it is necessary to decide to extrapolate the construct in the process of pedagogical interaction and transfer the conclusions obtained in one part of the system to another part of the same system, to ensure the effective transfer of acquired skills to future activities (Biasutti et al., 2019), (OuYang, 2020).

The creative approach requires special work from the music teacher aimed at the careful selection and organization of individual and collective music-making of students. This, in turn, allows the future music teacher to predict the development of skills to purposefully plan, organize, regulate, control, analyze and evaluate the effectiveness of creative activity (Özer & Üstün, 2020).

If it is believed that the professional training of a future music teacher is a continuous process of knowledge acquisition, then the projective construct is a continuous positive process of knowledge acquisition and its manifestations. This process is manifested in the results achieved and is generally a harmonizing factor in the formation of artistic and informational competence of students of art faculties (Wang, Ma & Zhong, 2021).

According to many scholars, there is no other way to develop genuine, independent activity in students than through their own active and critical thinking. Creativity does not even begin with the creation of something new for humanity; it has been inherent in human subject matter since its inception. If a person does not creatively assimilate the accumulated human culture, it will not give contemporaries anything new. Creating something new is a continuation of creativity in the realization of human activity (Kienig & Suplicka, 2018).

### **3. Aims**

The research aims to determine the views of scholars and practicing teachers in artistic specialties regarding the peculiarities of developing project-based competencies for future music teachers.

### **4. Materials and methods**

A study was conducted to examine the current trends in the formation of project competence among future music teachers. The study included interviews with 253 scholars and 282 practicing music teachers who teach in higher education institutions located in Khmelnytskyi, Chernivtsi, Lviv, Ivano-Frankivsk, and Odesa regions of Ukraine. These regions were chosen to ensure a diverse representation of perspectives and experiences related to the formation of project competence among future music teachers in different parts of the country. Khmelnytskyi region, situated in western Ukraine, is known for its rich cultural heritage and vibrant music scene. The inclusion of participants from this region provided insights into the specific challenges and opportunities faced by music teachers in this area. Chernivtsi region, also located in western Ukraine, is characterized by its multicultural environment and historical significance. The participation of

music teachers from this region allowed for a deeper understanding of how project competence is cultivated amidst diverse cultural influences. Lviv Oblast, renowned for its thriving arts and music scene, attracts students and educators from various backgrounds. Including participants from Lviv provided valuable perspectives on the formation of project competence in a highly artistic and culturally diverse environment. Ivano-Frankivsk region, situated in the Carpathian Mountains, is known for its folk traditions and unique musical heritage. The involvement of participants from this region shed light on the integration of traditional music elements into the development of project competence among future music teachers. Odesa region, located on the Black Sea coast, is a vibrant cultural hub that fosters creativity and innovation. The participation of music teachers from Odesa offered insights into the specific dynamics and trends in project competence formation in a coastal urban setting.

In order to carry out the study efficiently, the researchers utilized the Zoho Survey service, a reliable platform for conducting online surveys. This platform facilitated the collection of data from the participants, ensuring a convenient and organized process for data gathering.

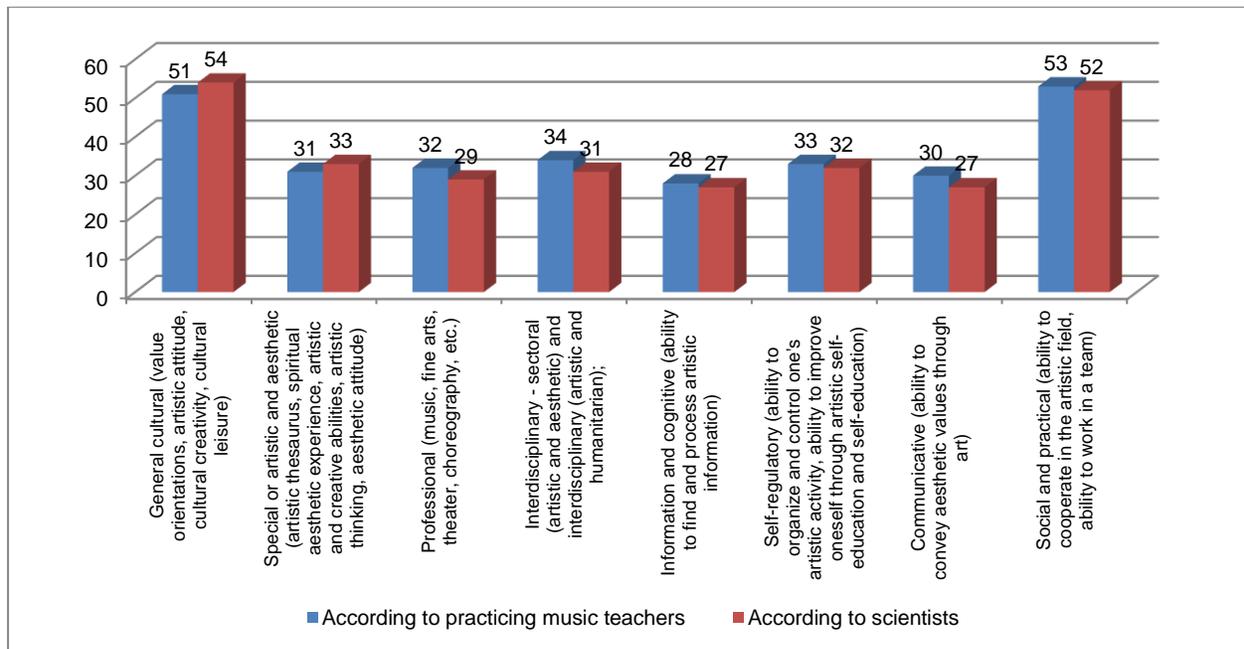
The interviews and surveys conducted with the scholars and practicing music teachers explored various aspects related to the formation of project competence. The participants were asked to share their perspectives, experiences, and insights on key issues regarding project competence development among future music teachers.

By incorporating a diverse range of participants, including scholars and practicing teachers, the study aimed to provide a comprehensive understanding of the current trends and perspectives in the field. The insights obtained from the interviews and surveys contributed to identifying important theoretical aspects of project competence formation, as well as practical perspectives on effective strategies and approaches for developing project competence among future music teachers. Overall, the study's methodology of conducting interviews and utilizing the Zoho Survey service ensured a robust and comprehensive examination of the formation of project competence in the context of music education, enhancing the validity and reliability of the findings.

## 5. Results

According to the survey participants, in the context of increased attention to the quality of professional training of art teachers in the vast majority of countries, the implementation of a competency-based approach to professional training is a strong motive and incentive to optimize the training and development of future professionals. The survey allowed us to establish the respondents' opinions on the key competencies that primarily determine the quality of a music teacher's work (Figure 1).

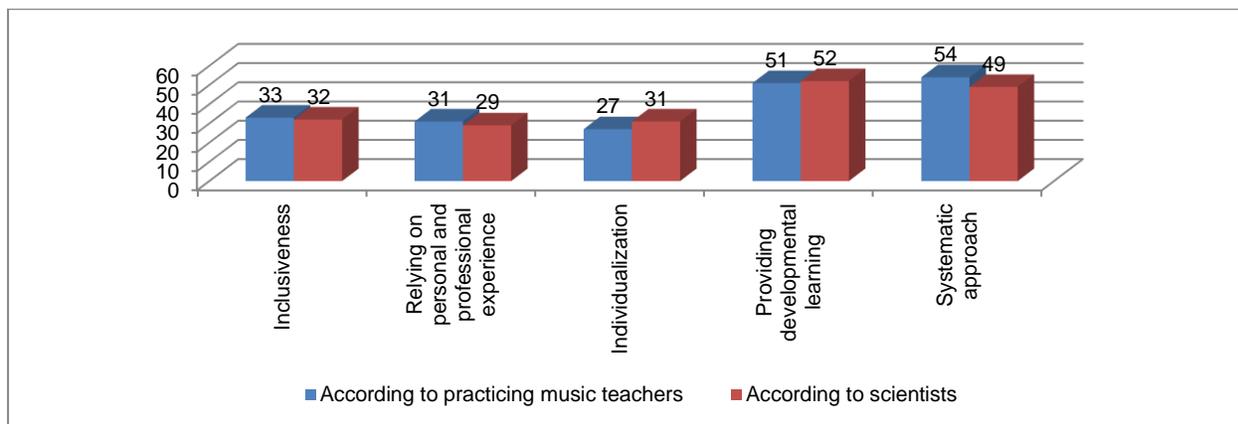
As shown in Figure 1, the key competencies of a music teacher are the qualities that are most essential for project activities, namely general cultural, social, practical, and professional abilities.



**Figure 1.** Competencies that primarily determine the quality of a music teacher's work, %.  
 Source: built by the authors.

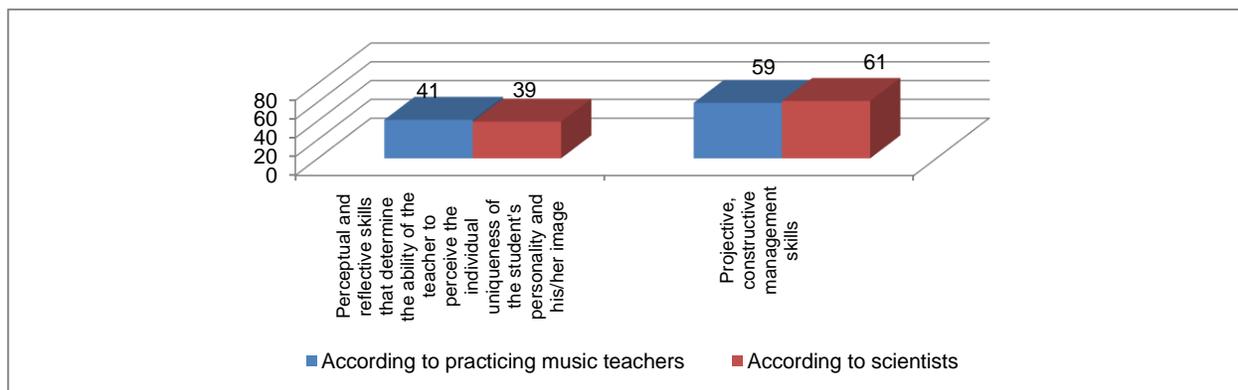
Given the primary pedagogical factors that encourage art education to achieve its objectives and serve as the foundation for developing priority areas for the further development of music teachers, the survey participants identified (Figure 2):

- providing developmental training;
- consistency.



**Figure 2.** Factors that are the basis for building priority areas of methodological work for the further development of music teachers, %.  
 Source: built by the authors.

Quite revealing in this study was the respondents' perspective on the areas of the most relevant methodological research (Figure 3).

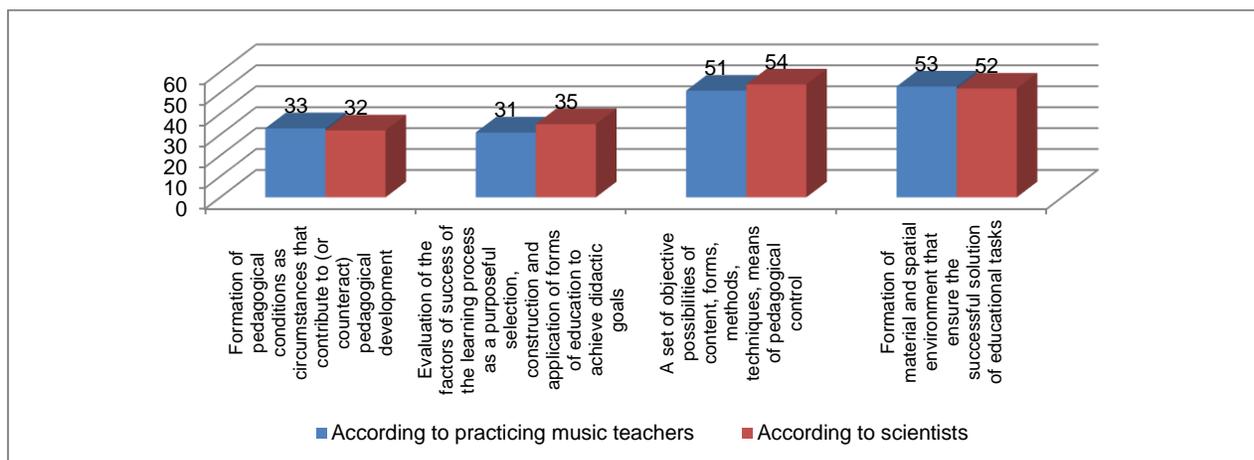


**Figure 3.** Directions of the most relevant methodological and scientific research of the educational process of students majoring in musical art, %.

Source: built by the authors.

As depicted in Figure 3, there is a pressing need for methodological advancements in the creation of tools to foster the development of projective and constructive management competencies among prospective music teachers. This highlights the growing significance and attention placed on these proficiencies by professionals in the field, alongside the insufficiency of methodological guidance in this area of their professional advancement.

Regarding the pedagogical environment for cultivating artistic and informational literacy in students of art faculties, the survey participants have identified the following key criteria for methodological innovations in the training of music educators (Figure 4).

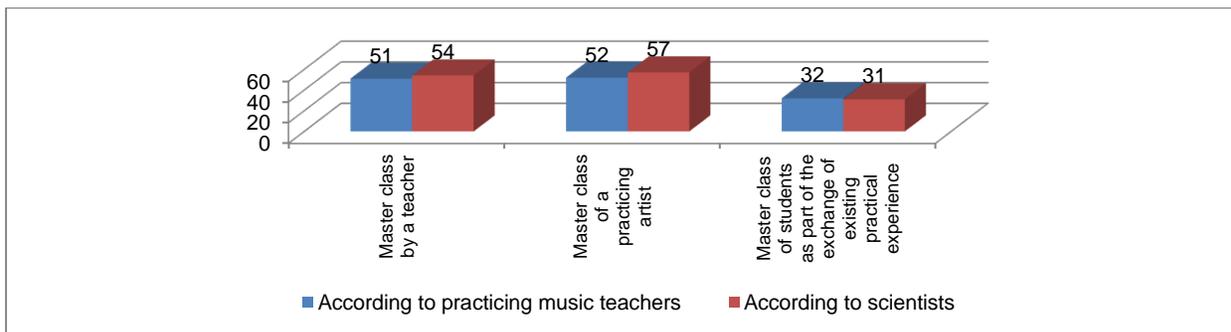


**Figure 4.** The most important criteria for methodological developments for the professional training of music educators, %.

Source: built by the authors.

Based on the survey results, it has been determined that the primary criteria for methodological efforts in creating training materials for music teachers include a qualitative alignment of content, forms, techniques, teaching methods, and pedagogical assessment measures, as well as the establishment of a conducive physical and educational atmosphere that fosters effective learning outcomes.

Furthermore, according to the surveyed participants, the most promising forms of practical work with music majors that necessitate methodological improvements are (Figure 5). The survey findings indicate that for the effective development of practical skills in aspiring music educators during the educational process, the primary requirement is for methodological advancements in the form of master classes conducted by experienced teachers and practicing artists.

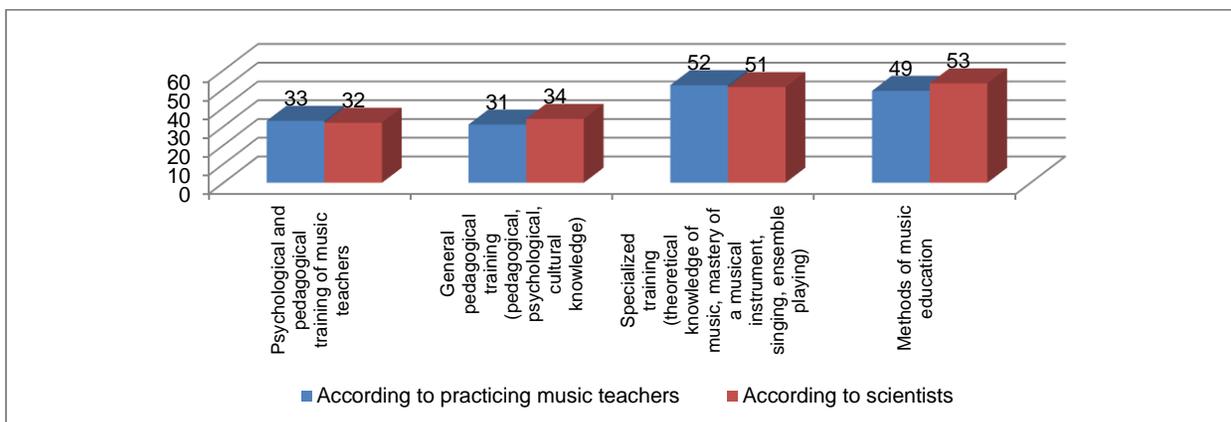


**Figure 5.** The most promising forms of practical work with students majoring in music that require methodological developments, %.

Source: built by the authors.

Furthermore, the survey results have revealed that the most pressing need among students majoring in artistic fields currently pertains to the methodological development of projects related to (Figure 6).

Figure 6 highlights the significance of methodological developments in the organization of project-based activities and music education techniques as an essential foundation for enhancing the effectiveness of the educational process at music and pedagogical faculties, as well as addressing the current needs of students pursuing artistic disciplines.



**Figure 6.** Topics of methodological development of projects, which are of the highest need among students of artistic specialties, %.

Source: built by the authors.

## 6. Discussion

Proficient art educator is distinguished not only by their adeptness in working with their knowledge but also by their agility and adaptability to emerging labor market demands. They should be capable of monitoring and incorporating innovative information, working creatively and actively with children, cultivating value systems, and promoting lifelong learning (Dushniy et al., 2022).

An effective strategy for educational practice entails the selection of methods that facilitate creative interactions among students and are best suited for realizing the objectives of art education. To adhere to this principle, the educator must possess the ability to align the purpose and substance of learning with specific pedagogical objectives, while considering the interests and needs of students and drawing on their own pedagogical and artistic experiences. The application of the projectivity principle can significantly enhance the individualized instruction of prospective music teachers, fostering the development of their creative abilities through the selection of optimal forms, techniques, and pedagogical measures. This approach stimulates student engagement, cultivates problem-solving abilities, and promotes the capacity to design and successfully address challenging situations (Kozyr, Labunets, & Liming, 2020), (Ward, 2019).

In the context of teaching fine arts, the focus may be placed either on the theoretical or practical aspects of creativity. In the former case, students can engage with artists and gain insights into art analysis, as well as familiarize themselves with diverse conceptual approaches to creating art. In the latter case, prospective teachers can directly observe a range of techniques used by established artists to realize artistic ideas and cultivate their creative ideas through emulation. Experience indicates that such collaborations with artists not only foster a re-evaluation of students' creative abilities but also provide opportunities for personal realization in the field of art. Moreover, these interactions contribute significantly to the holistic development of the students' personalities, which is an important aspect of art education (Fan, & Matvieieva, 2021), (Kozyntseva, Synakh, & Dulebova, 2021).

It is important to note that, as a part of their professional training, prospective teachers engage in educational activities, actively participate in cultural and artistic events, and collaborate with general education and summer recreation facilities during their internships. Within the context of such cooperation, the use of master classes is especially relevant, as they provide students with an opportunity to develop their potential and test their artistic and pedagogical skills. The experience of conducting master classes contributes significantly to the development of the professional and project competencies of future teachers (Kelly, Mantere & Scott, 2018), (Valsiner, 2020).

## 7. Conclusions

The analysis of scientific literature and questionnaire survey results has shown that the formation of professional competence for future music teachers places significant emphasis on musical-theoretical, conducting, choral, vocal, and instrumental training. The practice of future music pedagogy is multilayered and includes musical and pedagogical, organizational, managerial, and performing aspects. Furthermore, research on the development of the personality of future music teachers, their ability for creative expression in music, and pedagogical activities. Furthermore, the formation of project competence is necessary to intensify scientific and pedagogical research in this area.

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## Higher education's role in developing primary school teachers' IT competence: Information and educational environment

### El papel de la educación superior en el desarrollo de las competencias en ti de los docentes de escuela primaria: Información y entorno educativo

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### Abstract

The study aims to explore the competency-based approach and the integration of information and digital competence in the New Ukrainian School concept. The study employed a research framework that involved an analysis of the current state of education in Ukraine, including an examination of teacher education, professional development programs, and competency-based approaches. The study confirmed the hypothesis that enhancing teacher effectiveness is achievable through continuous improvement and adaptation of the information and educational environment. The findings revealed the need to update education content to meet the requirements of the modern information society. The integration of



information and digital competence was found to be crucial, considering the growing use of technology in education. The New Ukrainian School concept emerged as a significant approach to address these challenges and foster teacher competence in the digital era. The study concludes that prioritizing the improvement of teacher education, professional development, and competence is essential for Ukraine to realize its goal of joining the European educational environment. The competency-based approach, along with the integration of information and digital competence, offers a promising framework for updating education content. By continuously enhancing the information and educational environment, Ukraine can nurture a skilled and adaptable teaching workforce capable of meeting the demands of the modern era.

**Keywords:** competence, informational sphere development, learning, technology, HEIs.

## Resumen

El estudio tiene como objetivo explorar el enfoque basado en competencias y la integración de la información y la competencia digital en el concepto de la Nueva Escuela Ucraniana. El estudio empleó un marco de investigación que involucró un análisis del estado actual de la educación en Ucrania, incluido un examen de la formación docente, los programas de desarrollo profesional y los enfoques basados en competencias. El estudio confirmó la hipótesis de que es posible mejorar la eficacia de los docentes mediante la mejora continua y la adaptación del entorno informativo y educativo. Los hallazgos revelaron la necesidad de actualizar los contenidos educativos para cumplir con los requisitos de la sociedad de la información moderna. Se encontró que la integración de la información y la competencia digital es crucial, considerando el creciente uso de la tecnología en la educación. El concepto de la Nueva Escuela Ucraniana surgió como un enfoque significativo para abordar estos desafíos y fomentar la competencia docente en la era digital. El estudio concluye que priorizar la mejora de la formación docente, el desarrollo profesional y la competencia es esencial para que Ucrania logre su objetivo de unirse al entorno educativo europeo. El enfoque basado en competencias, junto con la integración de la información y la competencia digital, ofrece un marco prometedor para actualizar los contenidos educativos. Al mejorar continuamente la información y el entorno educativo, Ucrania puede nutrir una fuerza laboral docente capacitada y adaptable capaz de satisfacer las demandas de la era moderna.

**Palabras clave:** competencia, desarrollo de la esfera informacional, aprendizaje, tecnología, IES.

## 1. Introduction

The Law on Education of Ukraine -2017- obliges adaptation to the modern European educational environment and makes the development of citizens' skills a central task. As stated in the Concept of the New Ukrainian School, a practical approach requires reviewing and updating the model and format of teacher education. Learning must take place in a modern educational and information environment.

The concept of the information environment was first proposed by Schrader Yu. A. (1976), who believed that the informational environment is not only an information mediator but also has a positive impact on its participants. According to Geiger, S. M., Fischer, D., Schrader, U., & Grossman, P. (2020), the authors proposed a semantic approach to the cognition phenomenon and a mechanism for determining the degree of semantic knowledge (as a measure of change in its vocabulary under the impact of the information received) and the accumulation of knowledge and possible skills, the concept of society, and the available knowledge about the information environment. This study provides a mathematical analysis of data transmission, processing, storage, research, and information carriers in terms of knowledge acquisition and information perception. It is determined that knowledge and information potential are also a combination of intellectual capabilities (the collective ability of people to solve problems arising from the accumulated knowledge, skills, and experience) and information potential (the ability to collect, store, research, and transmit information to ensure the achievements of society members) and the level of awareness necessary

for their tasks. At the same time, the study is aimed at the perception of information at the level of public opinion and is not adapted for students and school children.

Ramadhan, S., Sukma, E., & Indriyani, V. (2019) also studied the information and learning environment. Based on a survey of educational process participants, they identified areas for the formation of environmental awareness. At the same time, the survey was conducted on teachers who taught language disciplines and did not consider the peculiarities of teaching in primary school. Similar studies were also conducted by Abdel-Basset, M., Manogaran, G., Mohamed, M., & Rushdy, E. (2019) and Romero, C., & Ventura, S. (2020). According to their functional purpose, the authors determined that information and learning environments are divided into three types: information-oriented presentation, independent work, and a mixed environment focused on obtaining information. At the same time, an information and learning environment organizes various independent cognitive activities. As a rule, these environments are created within the framework of publicly available technologies or based on professionally developed shells focused on distributed collaboration and other environments based on communication technologies. They are open to teachers and students, allowing them to add and edit content and display the results of ongoing learning activities.

Liu, Z. J., Tretyakova, N., Fedorov, V., & Kharakhordina, M. (2020) have identified that the methodological basis for creating models of modern educational institutions' information and educational environment is the use of the "human-environment" system as a primary research unit. Asad, M. M., Hussain, N., Wadho, M., Khand, Z. H., & Churi, P. P. (2021) propose to start forming an information and educational environment for educational institutions by improving the mechanisms for using the information and educational system of teachers and improving the skills of information computer technology with the further involvement of students and schoolchildren in the process. Thus, the mandatory organizational stages of creating an information and educational environment of an educational institution are as follows:

- Passing exams.
- Approving training structures.
- Surveying teachers and students.
- Creating educational platforms (websites) and organizing self-education improvement.

Such an information and pedagogical communication process constitutes the curriculum's pedagogical, methodological, and organizational foundations and is a core element of the educational process. However, under current circumstances, there is a need to adapt this process to the requirements of the external environment to create and implement new products and mechanisms into the learning environment.

According to Hevner, A., Vom Brocke, J., & Maedche, A. (2019), and Urbach, N., Ahlemann, F., Böhmman, T., Drews, P., Brenner, W., Schaudel, F., & Schütte, R. (2019), to solve the problem of creating an educational information space, this issue can be solved by purchasing various software products that combine the functions of an information system and thus solve multiple tasks, such as:

- storage of personal digital records (databases) of students and employees of educational institutions;
- ensure communication with all participants of the educational process (including via the school's website);
- access to a wide range of digital educational sources;
- accessibility and transparency of educational process results for all participants (timetables, lists of students, teachers, lessons, results, and information on attendance);
- monitoring the quality of education (analysis and reporting on learning outcomes);
- automation of learning management processes (planning, workload assignment, and curriculum planning);
- availability and support of electronic document management;

- using a software environment that creates the school's information space;
- providing organized, secure, high-quality information (preventing students from receiving inaccurate information).

Primary school teachers' knowledge of individual student needs is essential to the information and educational environment. Various structural changes in people suggested by Fomin, I., Kokarev, K., Ananyev, B., Neklyudov, N., Bondik, A., Glushkov, P., ... & Wohlforth, W. (2021) provide an illustrative framework for studying individual qualities and communicators' characteristics. At the individual level, teachers should consider the flexibility of the student's neural system and its personality traits, such as activity and emotionality, which are prerequisites for communication skills. At the professional level, it is necessary to distinguish students' previous communication experience from the aspects of knowledge of communication activity models, communication skills, and perseverance in paired communication behavior (Onishchuk, I., Ikonnikova, M., Antonenko, T., Kharchenko, I., Shestakova, S., Kuzmenko, N., & Maksymchuk, B., 2020). At the individual level, experts recommend taking into account a person's care for themselves and others, as well as social roles, strong value orientations, tendencies, and moral qualities (Bekmurodov, M., Akhmedova, F., & Kadirova, K., 2020). While considering the personal approach, it is necessary to focus on how self-regulation mechanisms are developed regarding self-esteem and the ability to take a reflective position towards self-reliance. Knowledge of students' individual characteristics allows the teacher to study and observe students' individual and personal ones. After all, psychological and instrumental communication mechanisms and presentation skills should be different for each group of students. Today, the age limit of primary school, corresponding to the primary grades, is set between 6-7 and 9-10 years (Tsarava, K., Moeller, K., Román-González, M., Golle, J., Leifheit, L., Butz, M. V., & Ninaus, M., 2022). Children of primary school age are easily distracted, unable to concentrate for a long time, and are nervous and emotional. When entering primary school, there are significant changes in the child's intellectual development: a qualitative change in the cognitive environment, personality formation, and relationships with peers and adults. During this period, the ability to willfully regulate behavior undergoes qualitative changes. In primary school, a child begins to form a new type of relationship with others. The absolute authority of adults gradually disappears, schoolmates become more important to children, and their role in society increases. The following fundamental achievements of primary school include:

- a qualitatively new stage in regulating freewill behavior and actions;
- self-reflection, analysis, and planning of internal work;
- creation of a new approach to an understanding of reality;
- a focus on schoolmates' peer groups.

The significant changes in the psychological image of primary schoolchildren prove the possibility of comprehensive development of these children. The child's potential to become an active participant is realized. The children learn to understand the world around them, gain experience of their actions in this world, and control their behavior. The ability to recognize the teacher is a necessary part of their communication because attention to students and classmates is the main learning method.

This article aims to analyze the structure and components of creating an information and educational environment based on the formation of primary school teachers' competence to ensure optimal professional training in the framework of multi-level education.

The authors have set and fulfilled the following tasks to achieve this goal:

- to analyze the historical experience of forming the information and educational environment;
- to study the impact of information and educational environment quality on the formation of primary school teacher's competence;

- to form a mechanism for improving the information and educational environment to ensure the formation of primary school teachers' competencies.

The object of this research is the principles and methods of forming the information and educational environment.

The research subject is the relations between the educational process participants within the formation of the information and educational environment.

## 2. Methods and materials

In this study, the researchers employed a descriptive research method to investigate the development of the information-educational environment and its role in enhancing the professional and communicative skills of future primary school teachers. The descriptive analysis aimed to delve into the historical context and explore unobservable data or patterns for analysis and reporting.

To gather relevant information, there was utilized several techniques and procedures. These may have included:

**Literature Review:** A comprehensive review of existing literature on the development of the information-educational environment, professional and communicative skills of primary school teachers, and relevant educational programs and standards. This helped establish a theoretical framework and identify key research gaps.

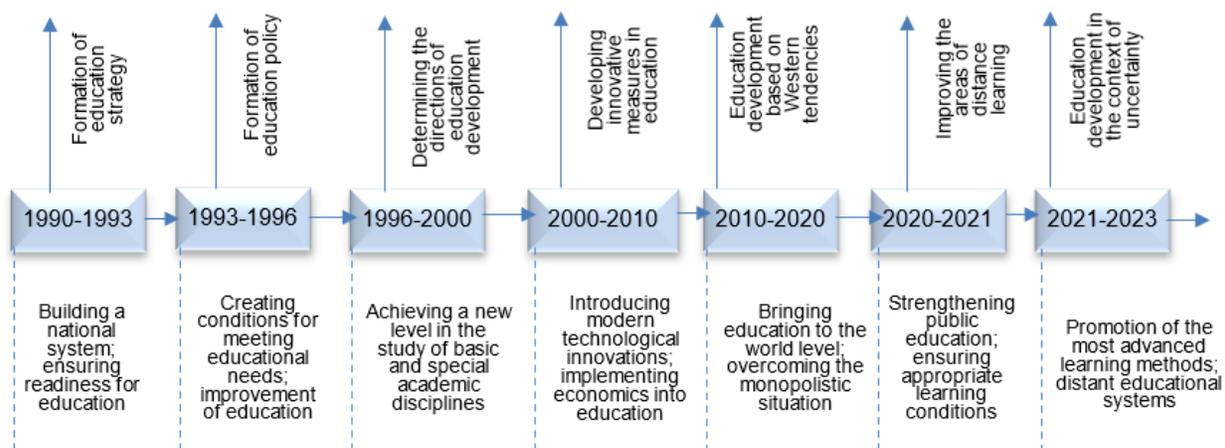
**Document Analysis:** Examination and analysis of official documents, such as the National Program for the Development of Education in Ukraine in the XXI century (2001) and the "Basic Standards of National Education" (2011). This allowed to identify the specific requirements and guidelines pertaining to the development of professional and communicative skills in primary school teachers.

**Data Analysis:** Analyzing the collected data using appropriate analytical techniques, such as thematic analysis, content analysis, or statistical analysis. This allowed for the identification of patterns, trends, and key findings relevant to the research objectives.

By employing these techniques and procedures, there was aimed to provide a comprehensive understanding of the historical development of the information-educational environment and its impact on the formation of professional and communicative skills in primary school teachers.

## 3. Results

Primary school teachers' information and educational environment is a dynamic process of forming knowledge, skills, and professional and pedagogical excellence. At the same time, the information environment for the educational process has gone through a long period of development (Figure 1). At each stage, the principles and methods of obtaining information have undergone structural changes and transformations.



**Figure 1.** Stages of forming an information environment in educational activities.

*Source: built by the authors.*

Nowadays, the academic world's challenge is organizing school education according to the individual's professional and communicative development. Communicative creativity ensures that mastering the activities defined by the teacher's profession is crucial in developing a professional interpersonal communication and communication culture. According to modern scientific opinions, Semerikov, Striuk, Striuk, Striuk, & Shalatska (2020), Kirca, & Bademli (2019), Swartz, Barbosa & Crawford (2020), communicative competence is a complex personality trait, understood as the ability of communicators to apply their knowledge, skills and experience in professional fields. Therefore, it requires identifying primary school teacher competence's essence and structural elements. The structural elements of primary school teacher competence include:

- linguistic culture (better mastery of language norms, appropriate choice of verbal and non-verbal means);
- pedagogical delicacy (the ability to select and apply pedagogical knowledge in practical teaching);
- knowledge of norms and rules of communication (communication laws, moral requirements, ethical and moral standards, customs, cultural traditions);
- information about students' individual characteristics and their independent educational and learning abilities.

At the same time, language competence is particularly important for elementary school teachers as it is one of the most important factors that influence children's psychological and emotional functioning. It is connected to the fact that adult parents and teachers are authoritative among primary school pupils. Therefore, primary school pupils simply imitate the words and actions of the teacher, so the teachers have to work hard to show a good example. In elementary school, the minimal basis of language and culture is formed: in the junior and senior classes, spelling, style, grammatical norms, and speech etiquette are formed and developed, so they are basic knowledge on which the success or failure of the secondary school depends. The language culture of future elementary school teachers as a socio-pedagogical phenomenon is formed by improving the internal direction of individual speech styles, striving for professionalism and cultural self-determination, and the ability to use linguistic tools (vocabulary, phonetics, grammar). Subject-subject relationships of the participants in the educational process are realized through the implementation of various means and styles, emphasizing the humanistic orientation of communication, the status of teachers, the application of interactive teaching methods, focusing on problems, cognitive research, emotions, behavior, and culture, ensuring dialogue and interaction between participants in the educational

process, designing students' research experience, purposeful implementation of students' experience exchange, and the completion of professional practice by future elementary school teachers.

For this purpose, information resources from educational institutions are used, which can be conditionally divided into five blocks:

- educational and upbringing activities,
- informational and methodological activities,
- scientific and practical activities,
- administrative and economic activities,
- cultural and educational activities.

In Table 1, the authors compare the proposed information resources and their impact on forming primary school teachers' competencies. The considered components of the information space form a common information and educational environment for primary school teachers and ensure the acquisition, improvement, and development of the necessary competencies in professional activity. The systematic and complex nature of the information and educational environment requires creating a unified information space that would consider the dynamism and uncertainty of the external environment and the prospects for implementing innovative technologies. The creation of a unified information space and a database of educational institutions should start with specific work and depends on the educational institution's material and technical base and capabilities.

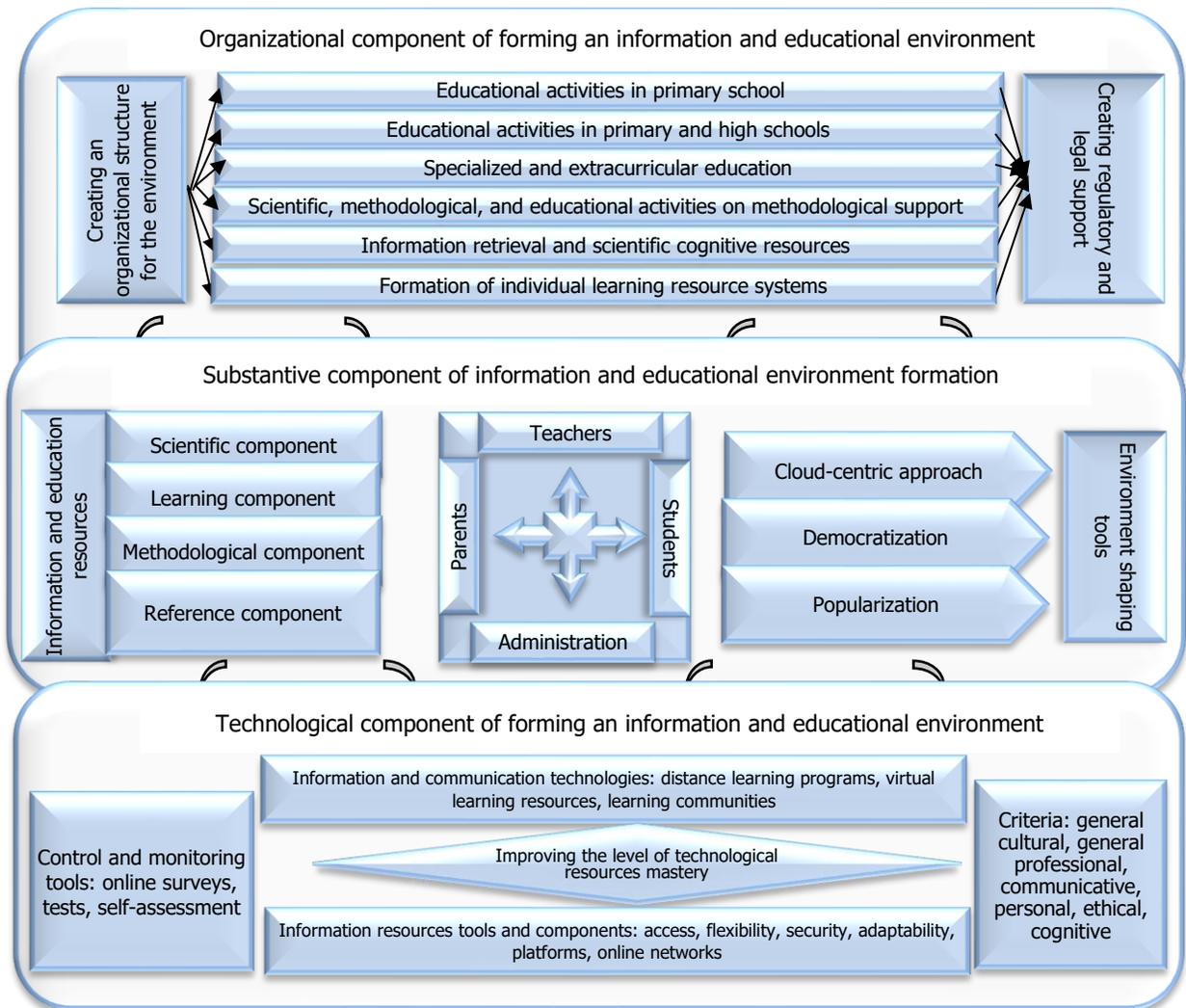
**Table 1.**

*Comparative characteristics of information resources for implementing the educational process in primary school*

Information resource	Content	Application areas	Impact on competencies formation
<b>Educational and upbringing activities</b>	The work of the academic community of the educational institution, which is responsible for the development of professional skills necessary for life and career in an informational society	This work should include the provision of digital libraries, the creation of media libraries, publishing, and web activities	Formation of knowledge about professional activities and skills in applying the acquired knowledge in practical activities
<b>Informational and methodological activities</b>	Includes a set of procedure techniques for various forms of training (project-based, individual, distance, etc.), i.e., creation of electronic textbooks, software programs, and organization of online meetings and consultations	Educational activities, methodological support of the educational process, independent work of educational participants	The ability to use information resources in professional and practical activities and the formation of information culture skills
<b>Scientific and practical activities</b>	It contains information about electronic learning content for basic, additional, and specialized high school courses	Conferences, symposiums, forums, practice-oriented learning	Acquiring new knowledge, developing practical skills for use in professional activities
<b>Administrative and economic activities</b>	It includes various documents: textbooks, planning of educational processes, class records, information on the health status of school children and staff, and creation and depiction of psychological and pedagogical diagnostics of students	Creation of online libraries, educational platforms, informational websites and services, e-journals, and educational sources	Use of acquired knowledge and skills for creating an information environment and applying the developed organizational skills
<b>Cultural and educational activities</b>	It is responsible for shaping the culture of pupils, including virtual museums, historical sites, art galleries, and music compositions. This component ensures culture, creative activity, high morality, and tolerance	Museum visits, professional exhibitions, theater plays, educational trips, historical sites, workshops, and handmade crafts	Acquiring new knowledge in additional professional activities, expanding the range of skills and abilities in creative activities, and demonstrating handmade skills

*Source: built by the authors.*

The data space model may contain several levels. At the first level, the acquisition of basic competencies is ensured based on the formation of knowledge and skills necessary for the professional activity of the teacher. The second level of the system is professional competencies, which include personal qualities, general culture, qualifications, abilities, methodological skills, and their harmonious combination with pedagogical activity to ensure optimal results. At the third level, the formation of pedagogical competencies is carried out based on ensuring the self-development of the teacher and improving the skills and abilities of professional mastery. The mechanism for forming the information and educational environment of primary school teachers is presented in Figure 2.



**Figure 2.** The mechanism for forming an information and educational environment for the development of primary school teachers' competencies (elaborated by authors)

*Source: built by the authors.*

Everyone who participates in the educational process is responsible for the functioning of all aspects of the information and educational environment. Subject teachers create personal portfolios, and organizational and methodological leaders fill the teaching portfolios of teachers and provide methodological support for the educational process. The library is stocked with electronic textbooks, and the school media library is monitored for effectiveness (in which librarians, students, and teachers participate). Departmental deputy

directors are responsible for completing and providing materials for professional education and training. The office manager creates and maintains a database of employees and students. Through monitoring in this direction, operational management decisions can be made to improve the quality of education and professional training. The collection and analysis of large volumes of source data and reference documents create the necessary basis for developing and improving the information and educational space.

Thus, the information and educational environment is a system in which all subjects of the educational process participate and communicate with each other at the information level: administration – teachers – students – parents:

- when planning the information and educational environment, the content of the modern stage of education should be taken into account, as well as the correlation of traditional components of the educational process with new information and communication technologies, new relationships between students and teachers, and the educational environment;
- the sphere of information literacy includes technical, informational, and organizational resources;
- in creating a knowledge-based educational environment in educational institutions, in the conditions of intensive use of information and communication technologies, the importance of teachers' competence in the school educational process has increased.

#### 4. Discussion

During the research process of creating and adapting an information and education environment, it was determined that the implementation of information technologies and the preparation of the pedagogical team for the use of information system tools are the most essential components for its successful implementation into the educational process. At the same time, the process of preparing teachers and implementing computer technologies in educational institutions should go in parallel. Cahapay, M. B., & Anoba, J. L. D. (2020) identified that the success of implementing and effectively organizing an information and education environment partially depends on teachers' readiness for innovation, which was thoroughly assessed during the COVID-19 crisis when teachers' readiness for transition to blended learning was evaluated. Similar studies on forming an information and education environment in conditions of uncertainty were conducted by Bagbekova, L. (2020), Schmidt, J. T., & Tang, M. (2020). A network administrator who will manage the process is needed to use information technologies in the educational process. These administrators create information and education systems for educational institutions and recommend, initiate, and implement telecommunication projects. Another task is to teach subject teachers how to use computer technology tools. Research and work experience have shown the advantages of using an information and education environment in educational institutions (Castro, M. D. B., & Tumibay, G. M., 2021, Sadeghi, M., 2019). Thus, the presence of an effective information and education environment forms and guarantees quick and reliable access to available information, the ability to communicate in real-time, electronic data storage, including remote storage, the ability to store practically unlimited amounts of educational data, work automation, and interactive learning environment.

Within the framework of forming a competency-based approach, the professional training of future elementary school teachers should be based on the following principles:

1. The principle of human orientation, creating conditions for the development of students' best qualities and abilities; humanization of relations between teachers and students, respecting the personality of the future specialist, understanding their requirements, interests, and personal dignity.
2. The principle of democratization involves the elimination of authoritarian methods of communication. To consider the future teacher's personality as the highest social value, to determine their right to freedom, and to develop their pedagogical abilities.

3. The qualification principle should create conditions for developing the necessary structural elements of complete pedagogical competence.
4. The principle of teaching creativity involves creating conditions for developing the individual's creativity.
5. The problem-solving principle concerns the orientation of future specialists toward solving practical educational tasks.
6. The principle of realism concerns the orientation of graduates of general education schools towards the real educational goal, mastering the means and methods necessary to achieve this goal.
7. The principle of teaching self-development involves leading students toward self-development and self-realization by creating conditions that constantly satisfy their spiritual and educational needs. Professional training of future teachers is effective only when implemented in a complex of the above principles and principles and is comprehensive.
8. The principle of individual orientation – choosing methods, forms, and content of education according to students' natural learning inclinations, conscious response to their spiritual needs and interests, and promoting spiritual self-realization.
9. Introducing new educational technology, the principle of technological unification in the educational process.
10. The principles of dialogue in education – rejecting monologues as socially oriented communication; developing students' skills to see the interlocutor's strengths and weaknesses and think critically.

Professional training of future primary school teachers aims to ensure their competitiveness in the market of educational services. These are the main tasks of forming the professional ability of future primary education specialists:

- creating conditions for the formation of the professional culture of future specialists.
- intensifying the formation of basic skills for future primary school teachers.
- ensuring self-organization and procurement of competitive technologies.
- preparing student career mobility.
- organizing methodological and educational support for pupils.
- forming social activity considering personal characteristics and social abilities.

Thus, the professional qualification of a primary school teacher is a system of related areas (motivational and value-oriented, content, operational-personal, and reflective activities).

## 5. Conclusions

A high-quality information environment must be ensured to solve one of the main tasks of a modern general education institution - to prepare graduates for life in the information society. The information and educational environment can be called efficient if:

- there is an organizational structure for collecting and storing information resources and providing information services;
- a system for assessing the quality of the information and educational environment has been developed and operates as an integral part of the quality management process;
- the information environment combines regional, national, and global resources to ensure the progress of education and improve the quality of teachers;
- the education of teachers and students is adapted to the current state of information technology development, and computer skills courses are offered to improve teachers' computer skills;
- information resources are diverse and suitable for different user groups;
- new information technologies (electronic catalogs, Internet connection, virtual services) are used to support the information environment;
- local networks and workstations have up-to-date licensed software.

An important factor in the quality of information support is the information infrastructure of educational institutions, which includes the availability and quality of external communication channels for accessing resources and local networks, the quality of information and content organized on internal network servers and the internet, the quality of management information in educational process software products, the availability of organizational structures for the use of information resources, and technical support.

However, there needs to be more clarity in providing information, which lies in the quality of its management. The lack of an effective information management system leads to ineffective management decisions, data duplication, and loss. Creating a data management system in educational institutions optimizes existing data collection channels and meets the information needs of administration, teachers, students, and parents.

In this article, the authors propose a mechanism for improving the information-educational environment, which includes three levels, to address this problem.

At the first level, the organizational component of the information-educational environment is formed. The organizational structure is formed at this level, and the regulatory framework for providing and perceiving information is developed.

The second level is the substantive component of the information-educational environment, which includes a mechanism for transforming information resources into tools for implementing the information support of the educational process. Again, all interested parties in the educational process, such as teachers, administration, students, and parents, should be involved in this process.

The technological component of forming the information-educational environment is ensured at the third level. At this level, methods and techniques are developed to ensure the formation of an effective information-educational environment, such as software, online services, and internet resources.

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# Common pedagogical principles of teaching and development of musical abilities of schoolchildren in educational structure

## Principios pedagógicos comunes de la enseñanza y desarrollo de las habilidades musicales de los escolares en la estructura educativa

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### Abstract

The article focuses on the formation of musical skills in secondary school students and addresses the challenges faced by music education in this regard. Using analytical and bibliographic methods, the study analyzes scientific literature on the development of musical abilities. Additionally, a questionnaire survey was conducted online to gain practical insights into the training and development of musical abilities in schoolchildren. The research identifies key theoretical aspects related to shaping pedagogical features of musical ability development. It also explores the perspectives of music scholars and teachers on critical aspects of the issue. By providing insights into the pedagogical aspects of musical skill formation, the study aims to enhance music education practices in secondary schools.

**Keywords:** formation of musical abilities, educational process, music training, music education, musical skills, musical abilities.



## Resumen

El artículo se centra en la formación de habilidades musicales en estudiantes de secundaria y aborda los desafíos que enfrenta la educación musical en este sentido. Utilizando métodos analíticos y bibliográficos, el estudio analiza la literatura científica sobre el desarrollo de las habilidades musicales. Además, se realizó una encuesta en línea para obtener información práctica sobre la formación y el desarrollo de las habilidades musicales en los escolares. La investigación identifica aspectos teóricos clave relacionados con la configuración de las características pedagógicas del desarrollo de la habilidad musical. También explora las perspectivas de académicos y profesores de música sobre aspectos críticos del tema. Al proporcionar información sobre los aspectos pedagógicos de la formación de habilidades musicales, el estudio tiene como objetivo mejorar las prácticas de educación musical en las escuelas secundarias.

**Palabras clave:** formación de habilidades musicales, proceso educativo, formación musical, educación musical, habilidades musicales, habilidades musicales.

## 1. Introduction

A scientific and specialized music literature review has shown that pedagogical and educational publications today pay great attention to developing students' musical skills.

The problem of developing students' musical abilities is wide and varied. Consequently, significant scientific discussions are taking place around issues related to the nature of musical skills, structure, formation process, and regularities.

The theoretical part of this research substantiates the concept, components, and main factors of musical skills development during secondary school students' education.

The practical part of the study includes an assessment of students' basic musical skills, which are the most important in educating schoolchildren, the most important general musical and special abilities, as well as the most promising areas of musical skills development that need to be improved in the modern educational system. In addition, the survey made it possible to identify the most important areas of potential international cooperation between educational institutions in developing musical abilities as part of the educational process.

The authors conclude the issues raised based on the research results. In particular, it was found that the main musical skills of students, which are the most important in schoolchildren's education, are vocal and musical-auditory representation, melodic and rhythmic sense, musical thinking, and the essential general musical abilities are the mastering of musical knowledge, skills and abilities and the musician's ability to convey their understanding of musical composition during the performance. In addition, it was found that the most important special musical abilities are the recognition and reproduction of a musical composition. The study showed that the most critical areas of musical abilities development that need to be improved in the modern educational system are cognitive-sensory musical skills, understanding, and the ability to respond emotionally to music. The survey made it possible to identify "Musical abilities as qualitative properties of mental functions" and "Interconnection of external and internal conditions of skills development as a starting point of the psychological and pedagogical theory of musicianship" as the most important areas of possible international cooperation of educational institutions for the development of musical abilities.

## 2. Literature review

Music is one of the most powerful educational tools that adds aesthetic color to a person's spiritual life (Román-Caballero et al., 2022).

Aesthetic education, in the broadest sense, transfers the experience and skills acquired by the society. The forms of experience transfer can be very diverse. They become more complicated as the person develops and, in the historical context, as the structure of knowledge and social relations grow, which should continue since the movement of history is only possible with the active transmission of the cultural achievements of humanity to the next generations (Cooper, 2020).

In the philosophical sense, aesthetic education implies qualitative changes in the level of aesthetic culture of an educational object, which can be either an individual, a social group, or society as a whole. In practice, it is a continuous process throughout a person's life. Aesthetic education forms and develops a person's perception and empathy, as well as their aesthetic preferences and values, and the ability to create something precious in art and beyond (everyday life, actions, and behavior) (D'Souza & Wiseheart, 2018).

Aesthetic education, therefore, has two main functions:

- the formation of the aesthetic and value-oriented orientation of the individual.
- the development of creative capabilities determines aesthetic education's place in public life.
- the connection with other types of educational activities.

Music can lift the mood, and it can both depress and support, as well as inspire, help, and relax (Fasano et al., 2019).

Regarding musical abilities, there is a distinction between external and internal ear training. External ear training performs two functions, the first of which is the clear perception of the music another person performs. In this case, the auditory objects are pitch, dynamics, metronomy, and timbre. The second function concerns the perception of one's own playing and self-control (Briot & Pachet, 2020).

Systematic music education provides significant musical development for preschool children. Musically gifted children quickly outpace less gifted children in developing their general knowledge and skills. However, perseverance is no less important than talent in successfully mastering music (Eren & Öztug, 2020).

All types of art serve the primary goal of forming a modern, well-rounded person. The process of art perception itself is a complex cognitive act in which a work of art functions not only as a means of understanding the surrounding or historical reality but also as a cognitive object and as an independent artistic value. A complete perception of beauty in art is available only to a fully and harmoniously formed personality with developed interests, tastes, and spiritual needs (Degé & Schwarzer, 2018).

A well-developed musical ear is required for a full-fledged musical and aesthetic perception. The musical ear is a complex skill that includes pitch (melodic and harmonic), rhythmic, dynamic, and timbre hearing. The ability to follow the line of a melody and the direction of its movement while listening to music only appears in school children after some time. However, there are several difficulties, especially with underdeveloped ears and poor musical and auditory attention. In addition, harmonic hearing and the ability to perceive and perform polyphonic music are also developed during music perception (Hilt et al., 2019).

During music education, children are introduced to various musical forms and acquire certain knowledge, skills, and abilities to listen to music. In addition, the child develops a passion for music, aesthetic skills, and the ability to appreciate music (Habe, Biasutti & Kajtna, 2021), (Wang, 2022).

All the concepts we use to describe individual manifestations of musical abilities emphasize their various psychological aspects and expressions. Musicality can only exist with basic musical skills, but not limited to them. Musical development, like all other mental and psychological processes, is constantly evolving and is a transition from involuntary reactions to a conscious understanding and ability to reproduce and create music (Miksza et al., 2021), (Ward, 2019).

### 3. Aims

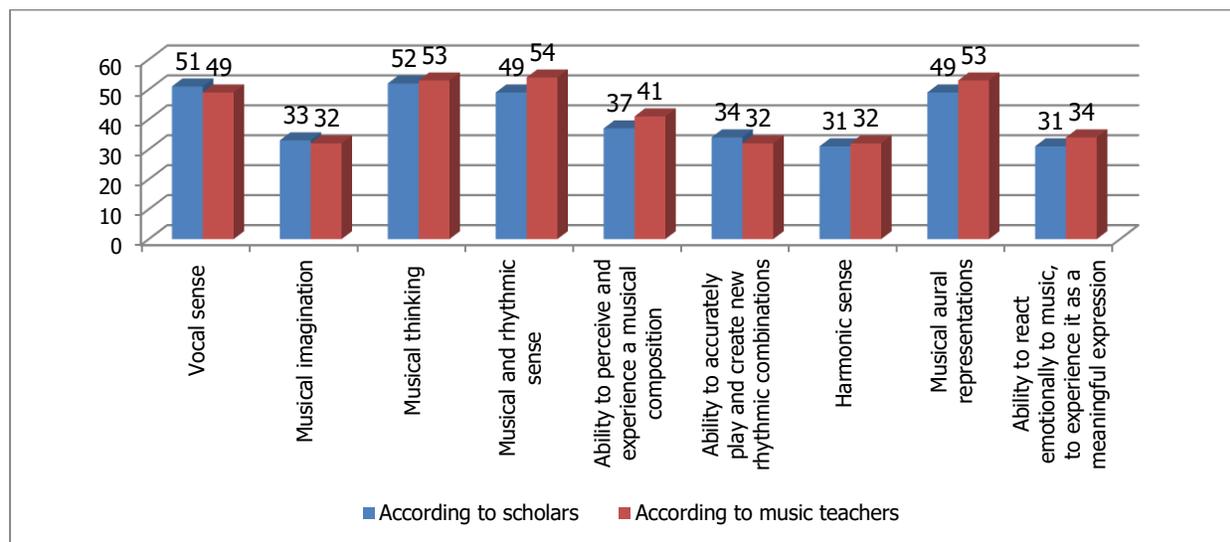
This research aims to determine the standpoints of music scholars and teachers on the features of musical abilities development during secondary education among schoolchildren.

### 4. Materials and methods

A practical study of current tendencies in the development of musical abilities was conducted by interviewing 254 scholars and 312 music teachers who teach in 28 secondary schools in Khmelnytsky, Ivano-Frankivsk, Chernihiv, Zhytomyr, and Kyiv regions of Ukraine. The study was conducted by using the Survey Monkey service.

### 5. Results

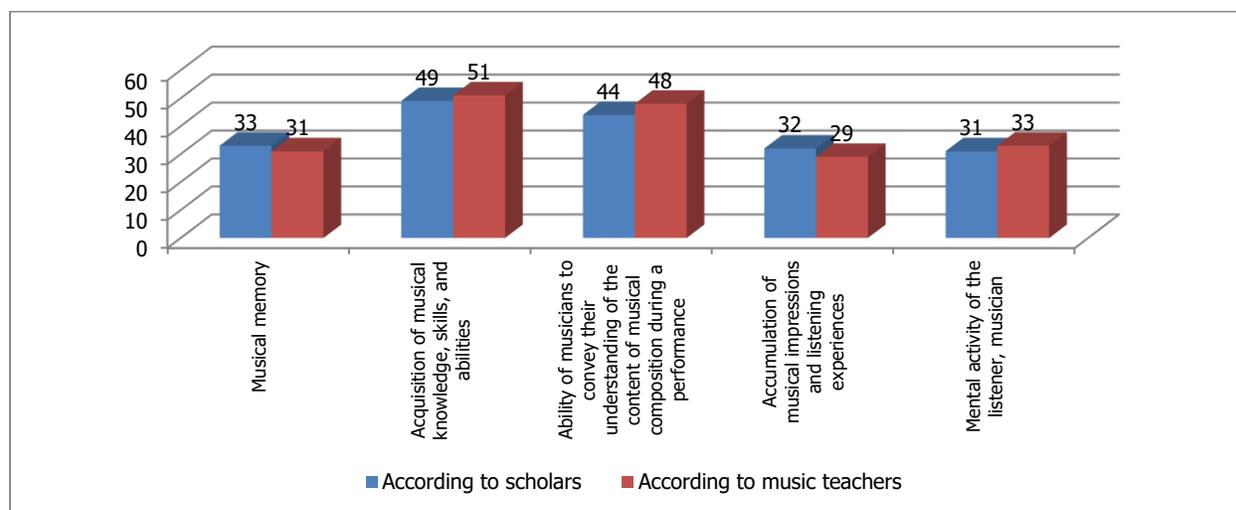
At the beginning of the survey, we found out the respondents' opinions on the basic musical skills of students, which are most important in schoolchildren's education (Figure 1).



**Figure 1.** Basic musical skills of students, which are the most important in schoolchildren's education, %. *Source: compiled by the authors.*

According to the survey, the basic musical skills of schoolchildren include vocal, musical aural representations, melodic and rhythmic sense, and musical thinking.

An important aspect of the research topic is identifying the most important general musical abilities (Figure 2).

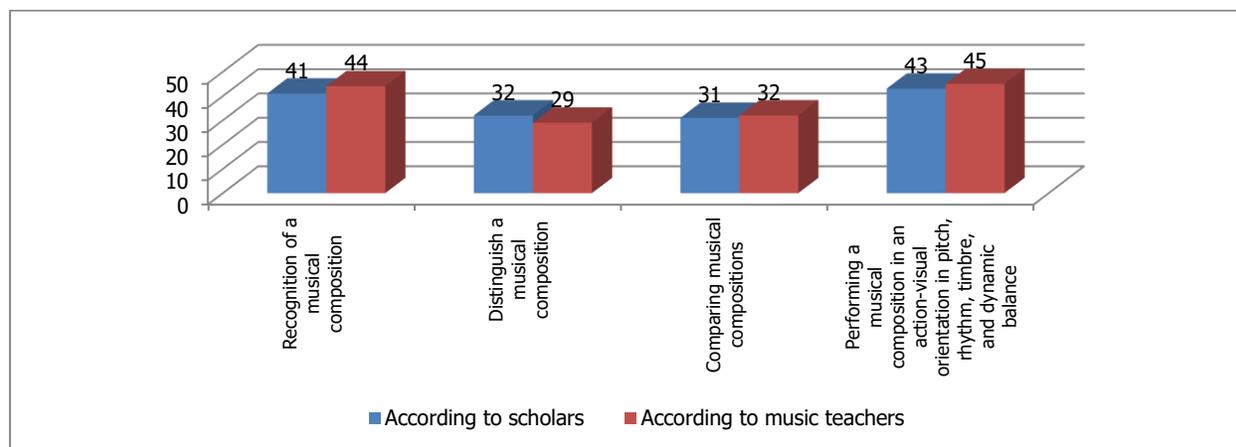


**Figure 2.** The most important general musical abilities, %.

Source: compiled by the authors.

During the survey, respondents identified the most important general musical abilities as the acquisition of musical knowledge, skills, and abilities and the musician's ability to convey their understanding of the content of musical composition during a performance.

According to the survey, scholars and teachers identified the most important special musical abilities (Figure 3).

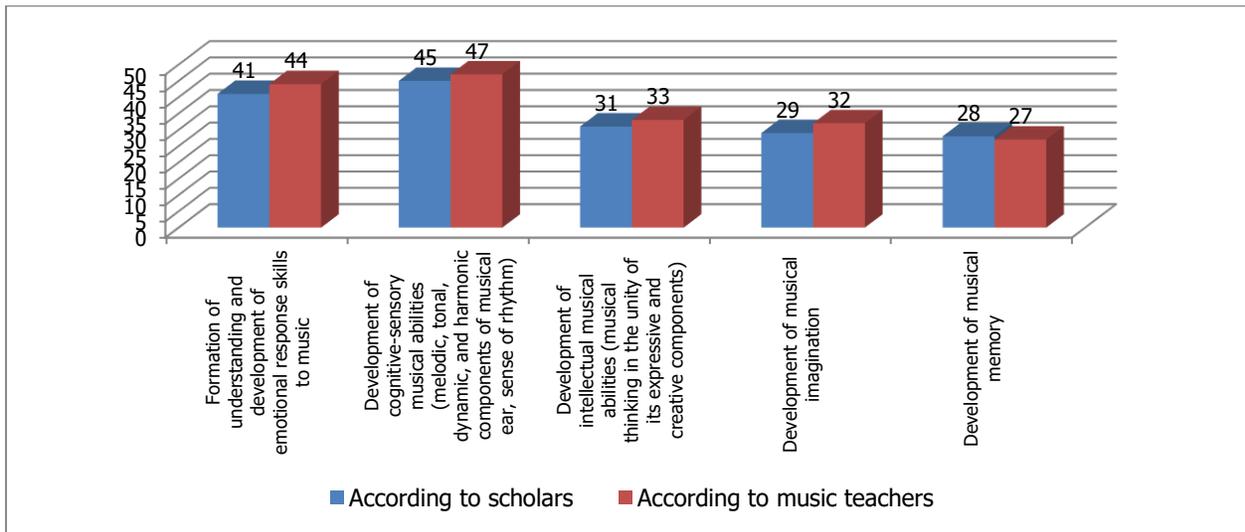


**Figure 3.** The most important special musical abilities, %.

Source: compiled by the authors.

Figure 3 shows that the most important special musical abilities are the identification and playback of a musical composition.

The questionnaire allowed us to identify the most important areas of musical abilities development that need to be improved in the modern educational system (Figure 4).

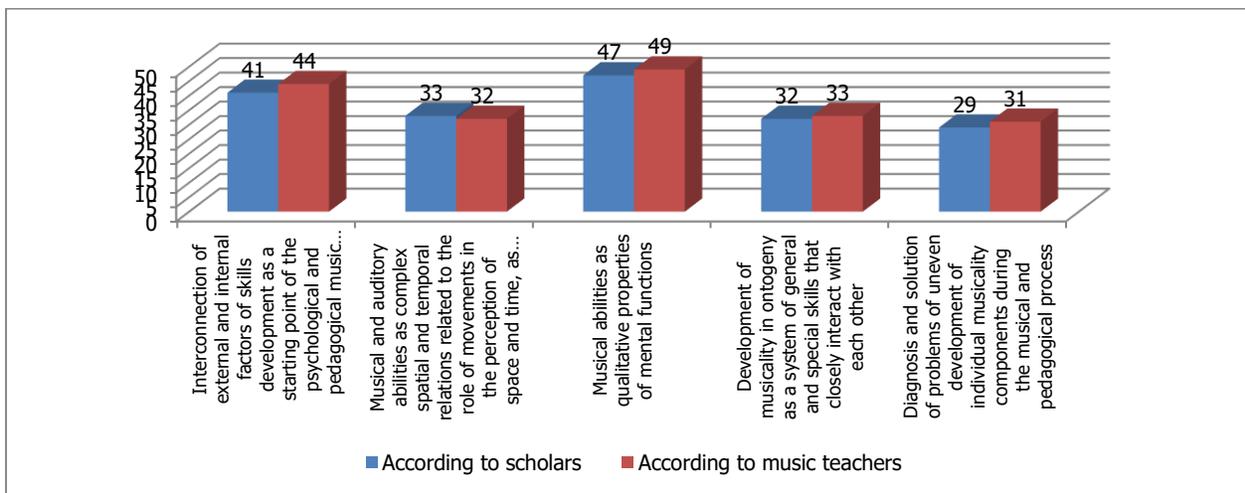


**Figure 4.** The most important areas of musical abilities development that need to be improved in the modern educational system, %.

Source: compiled by the authors.

According to the survey, the formation of such components of musical abilities development as cognitive-sensory musical skills, understanding, and ability to react emotionally to music requires the most significant attention when educating.

The research has identified the most important areas of possible international cooperation between educational institutions in developing musical abilities as part of the educational process (Figure 5).



**Figure 5.** The most important areas of possible international cooperation between educational institutions in developing musical abilities as part of the educational process, %.

Source: compiled by the authors.

As seen from Figure 5, according to scholars and teachers, such areas can be primarily "Musical abilities as qualitative properties of mental functions" and "Interconnection of external and internal conditions of skills development as a starting point of the psychological and pedagogical theory of musicianship".

## 6. Discussion

In the context of education reform, the modern school needs new theoretical elaborations, effective methods of children's education and upbringing, and the solution of various artistic and pedagogical tasks, among which the problem of forming musical abilities occupies a prominent place (Biasutti et al., 2019; Valsiner, 2020).

The analysis of the studied literature on the research topic shows two main views on the essence of musicality: musicality as an innate ability that cannot be formed and musicality as a trait created based on natural ability. The relevance and importance of developing musical skills lie in the fact that musical development has an irreplaceable impact on the overall development of a person: the emotional sphere is formed, imagination, will, and fantasy are awakened, while perception is sharpened, and the creative forces of the mind are activated (OuYang, 2020; Kozyntseva, Synakh & Dulebova, 2021).

The methodology of developing musical abilities as a system of knowledge, ways of acquiring this knowledge, and approaches to musical skills study are constantly evolving, directly affecting the practice of art education. Nowadays, high school teachers already have methods in their toolkits that allow them to develop musical skills and abilities effectively. Still, they need to fully meet the ever-increasing demands on the level of schoolchildren's development. Therefore, scientists are faced with continuing to study such a complex phenomenon as musical abilities (Özer & Üstün, 2020; Kelly, Mantere & Scott, 2018).

A stable predisposition to music, literature, etc., is formed through music, literature, and other activities, which becomes part of a functional system that is the brain center of abilities. Based on particular studies, psychologists have identified the so-called sensitive periods, i.e., the optimal periods for developing skills, after which each of them will be effectively formed at a certain age. They are determined by the sensitivity of a person to certain types of influences related to mental functions that are in the process of maturation, so with the onset of a sensitive period (at this point in life, not at any other), a child tends to develop in specific directions. If, for any reason, at these stages, the children find themselves in a situation of speech and activity isolation, the opportunities for developing the relevant skills are entirely or partially lost. Therefore, the problem of the correlation between skills and age occupies a special place in the theory of skills development, including musical ones (Turchet et al., 2018; Fan & Matvieieva, 2021).

While analyzing the specifics of the school-age child's development, it is appropriate to talk about the importance of forming their artistic and aesthetic abilities, thereby pointing out the exceptionally high possibilities of developing these abilities when studying art (Wang, Ma & Zhong, 2021; Dushniy et al., 2022).

Highlighting the most characteristic differences in the structure of schoolchildren's musicality, we must remember the interdependence in developing natural musical aural and aesthetic abilities. At the same time, it is also necessary to consider a child's abilities to perform certain musical activities – listening, accomplishment, and creativity (Kienig & Suplicka, 2018; Kozyr, Labunets & Liming, 2020).

## 7. Conclusions

Thus, the analysis of the scientific literature on the research topic and the questionnaire survey results showed that musical art plays a huge role in the aesthetic education of the younger generation and contributes to the formation of artistic needs and creative abilities. In perceiving music, children develop the ability to analyze compositions and esthetically evaluate them.

All types of teaching and educational activities within the framework of musical activities with schoolchildren should contribute to their spiritual development, world cognition, worldview formation, and moral

education. From the early years of study, it is necessary to involve schoolchildren in various types of musical activities since creative abilities are formed only through their involvement in appropriate musical activities. Undoubtedly, the formation of creative abilities in children should begin with strengthening and developing their creative activities. Creating conditions that will stimulate the natural course of the creative process and activate children to engage in fruitful creative work is necessary to solve this pedagogical task.

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## Ensuring psychological comfort as a condition for the comprehensive development of children

### Asegurar el confort psicológico como condición para el desarrollo integral de los niños

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### Abstract

The fundamental reform of the education system globally involves strengthening the humanistic orientation of the educational process, focusing on the active role of children in their development. The importance of caring, attentive, patient, and tactful attitudes from adults, as well as meaningful and emotionally warm communication from the early stages of life, is emphasized. The main objective of the study is to determine the role and features of achieving psychological comfort to ensure effective and comprehensive development during the educational process. The methodology employed an analytical and bibliographic approach to review scientific literature on the psychological comfort of children's development. Induction, deduction, analysis, synthesis, system-structural analysis, comparative analysis, logical-linguistic methods, abstraction, and idealization were applied to study and process the data. Additionally, an online questionnaire was conducted to gain practical insights into the issues related to psychological support during children's development. Based on the research results, the primary and most significant theoretical aspects of psychological comfort as a significant prerequisite for multifaceted child development were



established. This study provides valuable perspectives on the role of psychological comfort in educational practices, laying the groundwork for future research in this area.

**Keywords:** psychological conditions of development, psychoanalysis, psychological comfort, mental health promotion, psychological and educational tools.

## Resumen

La reforma fundamental del sistema educativo a nivel mundial busca fortalecer la orientación humanista en el proceso educativo, enfocándose en el desarrollo activo de los niños. Se destaca la importancia de una actitud afectuosa, atenta, paciente y delicada por parte de los adultos, así como una comunicación significativa y cálida desde temprana edad. El objetivo principal del estudio es determinar el papel y las características del logro del confort psicológico para asegurar un desarrollo integral y efectivo durante el proceso educativo. Se utilizó una metodología basada en análisis bibliográfico para revisar la literatura científica sobre el confort psicológico en el desarrollo infantil. Se aplicaron métodos de procesamiento de datos como inducción, deducción, análisis y síntesis de información. Además, se realizó un cuestionario en línea para obtener información práctica sobre el apoyo psicológico durante el desarrollo de los niños. Los resultados del estudio establecieron los aspectos teóricos más relevantes relacionados con el confort psicológico como requisito esencial para el desarrollo integral de los niños. Este estudio proporciona valiosas perspectivas sobre el papel del confort psicológico en el proceso educativo, sentando las bases para futuras investigaciones en este campo.

**Palabras clave:** condiciones psicológicas del desarrollo, psicoanálisis, confort psicológico, promoción de la salud mental, herramientas psicológicas y educativas.

## 1. Introduction

The primary tasks of the teacher, the solution of which requires knowledge of the children's psychology, are the recognition and support of pedagogically significant manifestations of the children's activity with the aim of directing them in the relevant direction, taking into account the students' wishes and interests when forming initial ideas and increasingly complex knowledge about the surrounding world, equipping their communication skills and effective, psychologically comfortable communicative activity.

The theoretical part of the present research substantiates the importance, factors and components of psychological comfort as a significant condition for the child's development.

The practical part of the research includes assessing the most important tasks of the educational process from the perspective of the necessity to ensure the psychological comfort of the education seeker. It determines prospective directions of developing the pedagogical science to stimulate children's effective psychological development. Along with this, it identifies the most effective psychological and pedagogical prerequisites for cultivating a child's personality and ways of solving the current problems of developing the psychological service of the education system, as well as establishing the most effective measures to increase the students' psychological comfort during their educational activities.

Based on the research results, conclusions were made regarding the issues raised. In particular, it has been established that the primary tasks of the educational process in terms of the necessity to ensure the psychological comfort of the education seeker are the protection and strengthening of the physical and mental health of children and the formation of a social-cultural environment that would meet the age, individual, psychological and physiological features of children. Considering the foregoing, the most promising directions for developing pedagogical science to stimulate the effective psychological development of children are establishing the role of a psychologist as an executor, creating a situation for

the teacher to reflectively analyze his experience, and also as a partner in pedagogical action, participating in the formation of the educational process. At the same time, the most significant prerequisites for the development of children's personalities are the restructuring of the educational space according to the personality-oriented educational model, the transition from the frontal to the individualized style of communication of the teacher with children, and the improvement of the teachers' psycho-pedagogical competence. The questionnaire made it possible to outline the most decisive ways of solving the current problems of developing the psychological service of the education system, in particular, the preparation and implementation of educational and preventive programs on overcoming aggressiveness, and cruelty among and towards students, development of an algorithm for the interaction of a school psychologist with representatives of other institutions and family services. An essential result of the survey is the identification of the main types of measures to improve the students' psychological comfort in the course of their learning activities, namely, using the latest educational technologies, psychological and pedagogical support measures, and the development of harmonious and friendly interpersonal relationships.

## 2. Literature Review

Child development is a process of irreversible, positively directed and natural changes leading to qualitative and structural transformations at all levels of the child's integral personality. The development of a child from early childhood is characterized by high dynamics and intense pace. Enrichment or deepening of the developmental process necessary for the life of a child of a certain age requires comfortable conditions for his education and upbringing (Kesavelu, Sheela & Abraham, 2021).

The most effective psychological and educational means directly influencing the cultivation of the personality is saturating children's lives with learning situations that positively affect their development. An important condition for a child's participation in such situations is his physical and psychological comfort (Kong & Yasmin, 2022).

The development of personality lies in organizing and integrating the inner world of a person. It is a path to oneself, a process of self-affirmation and self-discovery. Intellectual development becomes personal only when it begins to reflect one's own experience. From this moment, an individual determines, controls, and accepts responsibility for the course of his own development (Colliver et al., 2022; Mertala, 2019).

If the issue of the primary driving forces behind this process, namely, the fundamentals of the child's psychological comfort, is not resolved, studying the self-development of a personality as a unique multifaceted person will not be sufficient (Eijgermans et al., 2022; Lindeman, Svensson & Enochsson, 2021).

Support for psychological development during studies at general educational institutions aims to help each student socialize and adapt in the social environment, optimally developing his potential. Psychological support is focused on the optimistic perspective of each student. It is aimed at supporting the optimal development of each child: his cognitive activity, assimilation of professional knowledge and social values, norms of interpersonal interaction and communication, and formation of an independent type of behavior for positive psychological well-being. The tools of implementing this systematically organized activity are the student's spiritual development and the observance of comfortable conditions for his education and upbringing, the influence on the social and educational environment with the aim of creating conditions for development corresponding to the child's features, corrective and developmental work of the psychologist with the child in individual and group form (Liu, Zhao & Su, 2022; Forsling, 2021).

## 3. Aims

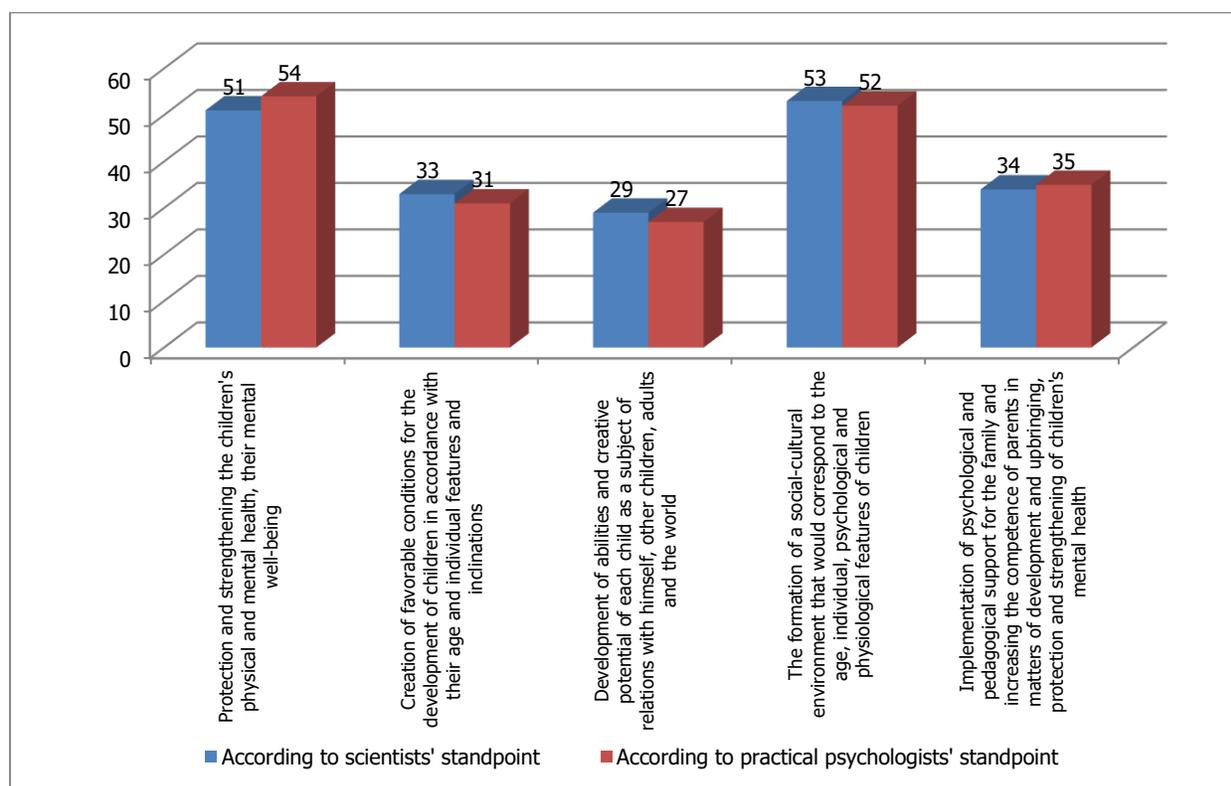
The purpose of the research is to determine the standpoint of scientists and practical psychologists regarding key practical issues related to ensuring psychological comfort as an important prerequisite for the comprehensive development of children.

#### 4. Materials and Methods

A practical study of modern tendencies in using the tools to ensure psychological comfort as an important prerequisite for children’s effective development was conducted by surveying 231 scientists and 191 practical psychologists working in Odesa, Mykolaiv, Lviv, Cherkasy and Ivano-Frankivsk regions of Ukraine. The research was conducted using the Google Forms service.

#### 5. Results

From the perspective of the necessity to ensure the psychological comfort of the education seeker as an important prerequisite for the effectiveness of the child’s development, the research made it possible to single out the following primary tasks of the educational process (Figure 1).



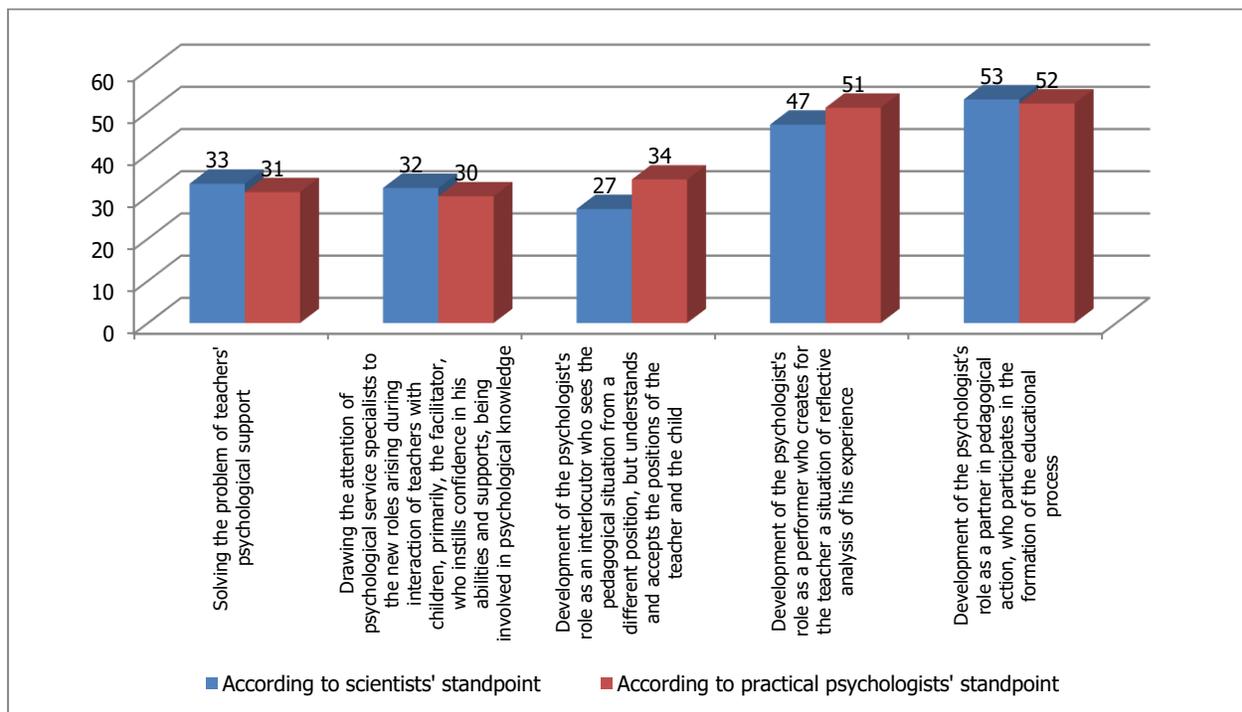
**Figure 1.** The tasks of the educational process from the perspective of the necessity to ensure the psychological comfort of the education seeker, %.

Source: compiled by the authors.

According to the survey participants’ standpoint, currently, in the conditions of the necessity to comply with educational standards, the most significant tasks are the protection and strengthening of the children’s physical and mental health and the formation of a social-cultural environment that would correspond to the children’s age, individual, psychological and physiological features.

During the survey, the respondents identified the following promising directions for developing the pedagogical science in order to stimulate the children’s effective psychological development (Figure 2):

- development of the psychologist’s role as a performer, who creates for the teacher a situation of reflective analysis of his experience;
- development of the psychologist’s role as a partner in pedagogical action, who participates in the formation of the educational process;
- drawing the attention of psychological service specialists to the new roles arising during the interaction of teachers with children, primarily the facilitator, who instills confidence in his abilities and supports being involved in psychological knowledge.

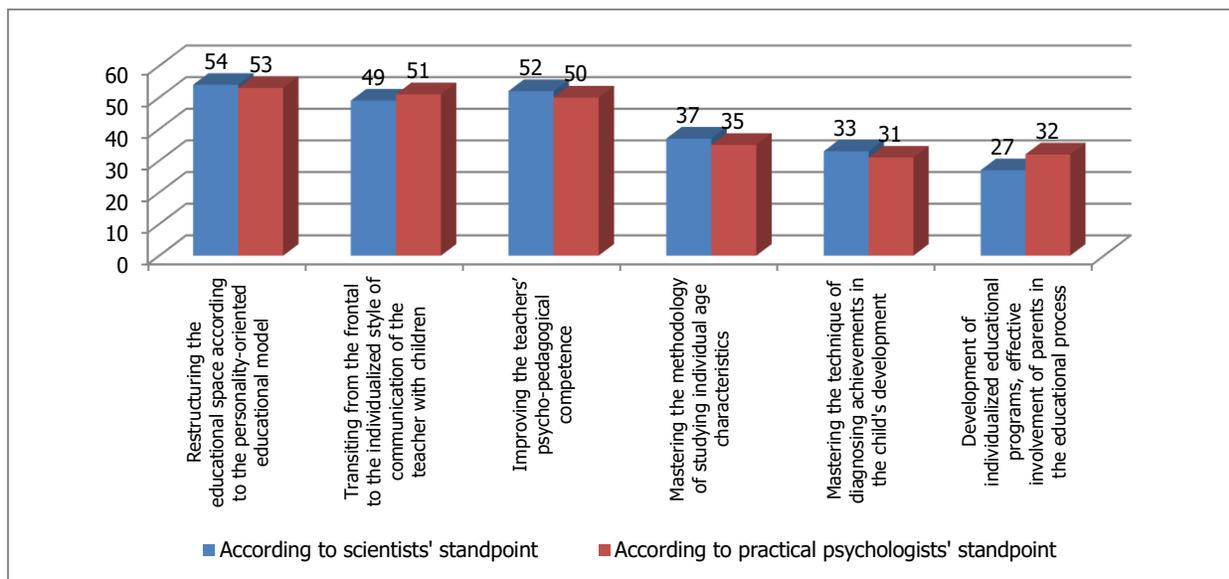


**Figure 2.** Promising directions for developing the pedagogical science in order to stimulate the children’s effective psychological development, %.

*Source: compiled by the authors.*

The survey made it possible to establish effective psychological and pedagogical prerequisites for developing the child’s personality (Figure 3).

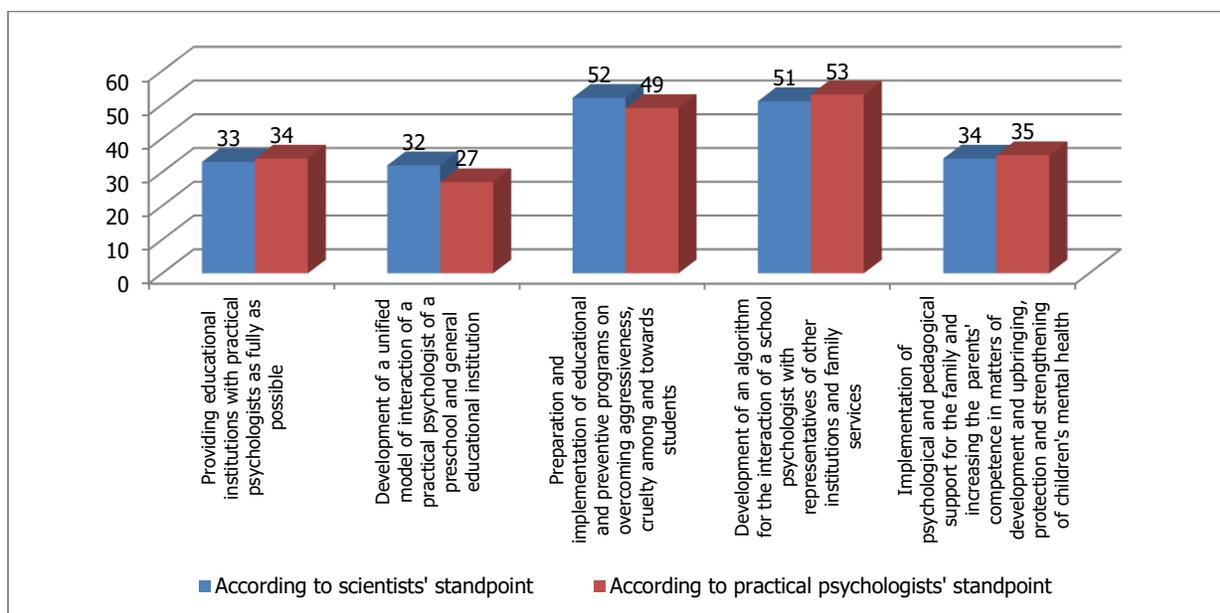
It can be observed from Figure 3 that the most significant prerequisites for developing the child’s personality are restructuring the educational space according to the personality-oriented educational model, transiting from the frontal to the individualized style of communication of the teacher with children, and improving the teachers’ psycho-pedagogical competence.



**Figure 3.** Effective psychological and pedagogical prerequisites for developing the child's personality, %.  
 Source: compiled by the authors.

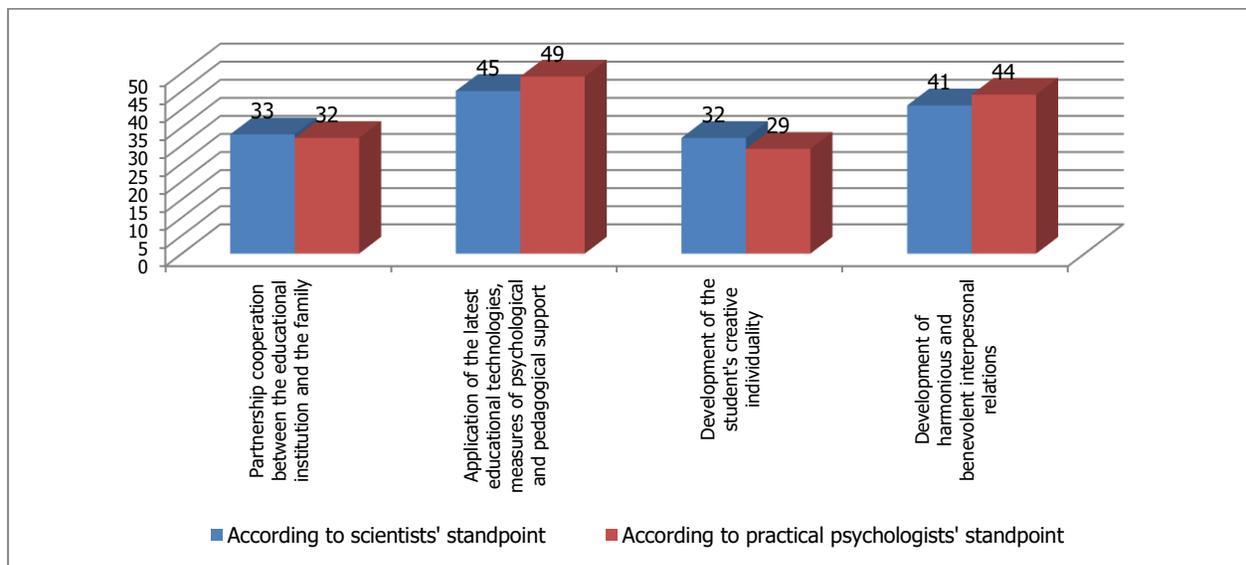
As evidenced by analyzing the research participants' answers, the current problems of the developing the psychological service of the education system can be solved by as follows (Figure 4):

- preparation and implementation of educational and preventive programs on overcoming aggressiveness, and cruelty among and towards students;
- development of an algorithm for the interaction of a school psychologist with representatives of other institutions and family services.



**Figure 4.** Ways to solve the current problems of developing the psychological service of the education system, %.  
 Source: compiled by the authors.

The survey made it possible to establish the primary types of measures to increase the students' psychological comfort during educational activities for their development (Figure 5).



**Figure 5.** The primary types of measures to increase the students' psychological comfort during educational activities, %.

Source: compiled by the authors.

The analysis of the responses received as a result of the questionnaire showed that such measures primarily use the latest educational technologies, measures of psychological and pedagogical support, and develop harmonious and benevolent interpersonal relations.

## 6. Discussion

The formation and personality development of a child of preschool and school age, which can be ensured at preschool and secondary educational institutions, requires the search for innovative content, forms and methods of working with students, fulfillment of the educator's mission as an intermediary between the child and society, solving urgent problems of personality cultivation and development (Parker et al., 2022; Walk, Evers, Quante & Hille, 2018).

Forecasting of changes and their regulation accelerate the process of updating the activities of educational institutions recognizing the need for conscious management. Therefore, the approaches to planning the educational institution's activities, updating the training base, dissemination and use of interactive forms in the educational process require significant attention. Currently, the organization of children's education should be based on methods and technologies that activate mental activity and creatively organize the educational space (Allee-Herndon & Roberts, 2020; Ernst & Reynolds, 2021).

The latest tendencies in developing the education system are dictated by the need for fundamental changes aimed at improving the quality and competitiveness of educational institutions. They are also aimed at solving strategic tasks faced by the institution's staff in the new economic and social-cultural conditions (Nilsson, Ferholt & Lecusay, 2018; Crouch et al., 2020b).

All necessary types of psychological activity, which are interconnected and complement one another, can be delegated with psychological assistance as a psychologist's working technique (van der Heijden, Beijaard, Geldens & Popeijus, 2018; Li, Tan & Yi, 2020), (Ozokcu, 2018).

The educator should focus on several crucial factors, including fostering psychological comfort in the classroom in order to ensure the child's thorough development both intellectually and morally, or in other words, as a personality (Neuman & Powers, 2021; Bryant, 2018).

Working in this direction, scientists in their studies pay attention to special changes in developing children's feelings of sympathy and antipathy. In particular, they believe that the objects causing these feelings are not only adults, but also the child's peers. Moreover, the source of such experiences is not only the satisfaction of organic needs but also the child's communication with peers, and the spiritual and moral characteristics of peers (Bruns et al., 2019; Crouch et al., 2020a).

Along with this, researchers of the child's psychological development pay attention to the fact that the degree of emotional development is not decisive for a person. People with a well-developed emotional sphere can get along better with people; they are able to manage their emotions more purposefully. Scientists-pedagogues emphasize in their studies to the fact that the emotional world of a child is formed from the first days of life, from the first smile, the first cry. It continues to be formed along with the personality formation, acquiring various positive and negative manifestations (Wolf et al., 2018; Brock & Beaman-Diglia, 2018).

## 7. Conclusions

Therefore, the analysis of the scientific literature on the research topic and the questionnaire results showed that forming comfortable psychological conditions for the child's development is of great importance for his future life. After all, it is positive emotions and a satisfactory psychological state that help the child develop harmoniously. Children's emotional and moral growth suffers when the intellectual domain is given precedence without consideration for the emotional component. Under such conditions, emotionally devastated individuals grow up, which eventually leads to the decline of the country's general culture. A positive psychological climate and emotional comfort of the child contribute to a freer expression of emotions and more productive learning and upbringing, which positively affects the formation of creative abilities.

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## **Coaching technologies in sociometry specialists' professional self-development in supporting families with children having special needs**

### **Tecnologías de coaching en sociometría autodesarrollo profesional de especialistas en apoyo a familias con niños con necesidades especiales**

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#### **Abstract**

The aim of the article was to evaluate the effectiveness of coaching technologies in training social workers to work with families that have children with special needs.

The research involved the following methods: formative experiment, where the Professional Coaching technology is implemented as an influence; tests as tools to determine the level of theoretical knowledge, Job Satisfaction Test, Ontogenetic Reflection Self-Assessment Test; observation to determine the specialists' communication skills level; statistical data processing. The research involved two samples - experimental and control, which included social workers. Social Competence Model in working with families that have children with special needs was developed, which consists of motivational-value, cognitive, communicative-activity and reflective criteria.

The dominance of medium levels of social workers' social competence in working with families that have



children with special needs was found. The effectiveness of the developed coaching system is proved. It was found that the formative influence is more effective for the cognitive and reflexive criteria than for motivational-value and communicative-activity criteria. The obtained results can be guidelines for further improvement of the developed Professional Coaching system. Further research prospects involve studying the impact of coaching on the self-development of not only social workers but also other sociology specialists.

**Keywords:** coaching, sociology specialists, social competence, motivational-value criterion, cognitive criterion, communicative-activity criterion, reflective criterion.

## Resumen

El objetivo del artículo fue evaluar la efectividad de las tecnologías de entrenamiento en la capacitación de trabajadores sociales para trabajar con familias que tienen niños con necesidades especiales.

La investigación involucró los siguientes métodos: experimento formativo, donde se implementa como influencia la tecnología del Coaching Profesional; pruebas como herramientas para determinar el nivel de conocimientos teóricos, Prueba de Satisfacción Laboral, Prueba de Autoevaluación de Reflexión Ontogenética; observación para determinar el nivel de habilidades comunicativas de los especialistas; procesamiento de datos estadísticos. La investigación involucró dos muestras - experimental y de control, que incluyeron trabajadores sociales. Se desarrolló el Modelo de Competencia Social en el trabajo con familias que tienen niños con necesidades especiales, el cual consta de criterios motivacionales-valorativos, cognitivos, comunicativos-actividad y reflexivos.

Se encontró el predominio de niveles medios de competencia social de los trabajadores sociales en el trabajo con familias que tienen niños con necesidades especiales. Se demuestra la eficacia del sistema de coaching desarrollado. Se encontró que la influencia formativa es más efectiva para los criterios cognitivo y reflexivo que para los criterios motivacional-valorativo y comunicativo-actividad. Los resultados obtenidos pueden ser pautas para seguir mejorando el sistema de Coaching Profesional desarrollado. Otras perspectivas de investigación implican estudiar el impacto del coaching en el desarrollo personal no solo de los trabajadores sociales sino también de otros especialistas en sociología.

**Palabras clave:** coaching, especialistas en sociología, competencia social, criterio valor motivacional, criterio cognitivo, criterio actividad comunicativa, criterio reflexivo.

## 1. Introduction

According to Tiulpa (2020b), the realization of social influences and purposeful interaction between people are the basis of sociological professions. Kuzan (2018) believes that a specialist working in the "Person to Person" system should be focused on continuous self-development throughout his or her career. The above urges finding effective methods of professional development of sociology specialists. Research on the implementation of coaching technology is noteworthy in this context.

Coaching is a popular and complex technology that has proven its effectiveness in training specialists in different fields (including sociology specialists): teachers (Lofthouse, 2019), nurses (Narayanasamy & Penney, 2014), (Schwellnus and Carnahan, 2014), surgeons (Granchi et al., 2021). Ray (2017) proved the effectiveness of trainings for the development of communication skills and abilities of teachers. Porras et al., (2018) studied socio-psychological mechanisms of coaching in professional development. Nevmerzhitska et al., (2020) studied various aspects of the use of coaching in the company management structure. Hollweck (2020) emphasized the role of coaching in developing the professional qualities of teachers who are just beginning their careers. Therefore, substantiation of the effectiveness of the use of coaching in the professional development of sociology specialists is a very topical area of research. At the same time, the above-mentioned researchers focus mainly on representatives of pedagogical and medical

specialties. So, we state that the coaching mechanisms in working with the representatives of other socionomic professions are poorly studied. In particular, there are almost no studies on the implementation of coaching in the training of social workers.

The activities of social workers are associated with a number of specific competencies, which sometimes require more than just study at a higher education institution. Myronova (2017) believes that this is especially true of working with children that have special needs, as well as their families. This area requires special approaches, and their development involves the use of innovative methods of pedagogical influence, in particular, coaching.

So, the topicality of the research is related to the following considerations:

- the relevance of the use of coaching technology in the professional self-development of specialists;
- need to find new effective methods of professional self-development of sociology specialists;
- insufficient coverage of issues in existing research;
- the urgency of developing new approaches to training for work with children that have special needs.

The aim of the article is to evaluate the effectiveness of the coaching technologies in training social workers for work with families that have children with special needs. Research objectives:

- 1) develop criteria and indicators of social workers' social competence in working with families that have children with special needs;
- 2) find out the empirical indicators of social workers' social competence to work with families that have children with special needs;
- 3) evaluate the effectiveness of the formative experiment, which involves the implementation of coaching technologies in self-development of sociology specialists.

## 2. Literature Review

Coaching is a mutual assistance system, where the coach and the client set goals and select the most optimal ways to achieve them. According to Grant (2013), it is primarily focused on self-learning and client's personal development, where the coach supports him or her in achieving the goal. Coaching originated in sports, so it was identified with training for a long time. Coaching has a number of features: 1) real-time feedback in order to achieve optimal results; 2) setting individual goals, while their achievement is assisted by the coach; 3) the focus on finding new ways of carrying out certain activities; 4) participants are responsible for changes; 5) the competence of the coach in the relevant field (Lovell, 2018). Wolfenden (2020) considered support, respect and focus on customer development as important features of the studied phenomenon. So, coaching is a more democratic and humanistic means of achieving the client's goals compared to training.

Researchers distinguish four stages of coaching: 1) establishing the principles of relations — the formation of goals, parameters and ethical constraints of the future interaction; 2) initial assessment (diagnosis) of training participants — systemic and personal; 3) formation and implementation of an action plan — development of an algorithm of activity that provides for an active involvement of participants in the process; 4) evaluation of the results of the implemented plan and its revision, if necessary (Deiorio et al., 2016).

According to Van Zyl et al., (2020), the approach which distinguishes the following stages of coaching is more detailed: building relationships; establishing feedback; development of an ideal image of desired changes; formulation of realistic goals; realization of influence on the client's personality; assessment of the effectiveness of actions taken; capacity building; termination of relations and agreement on further

cooperation. The emphasis on the individual's strengths in the process of influence is an important point (Peláez et al., 2019). Gettman et al., (2019) emphasize the importance of drawing up agreements between participants to improve the effectiveness of coaching. Kamarudin et al., (2020) consider coaching as one of the essential components of successful professional development. The use of positive psychological coaching focused on the client's available resources is effective for the professional development of the individual (Richter et al., 2021; Udovychenko et al., 2021). Dyess et al., (2017) proved the effectiveness of coaching programmes for the development of emotional resilience, leadership skills and improving the performance of the team of health-care workers.

The training of sociometry specialists is of great importance for building a healthy and efficient society. According to Kosharna (2020), the culture of professional thinking; communication skills; professional self-awareness; motives and needs of professional development are the main criteria for professional success of future sociometry specialists. Kuzan (2018) emphasized the role of innovative methods in the training of sociometry specialists, while Furdy et al., (2020) took into account the general psychological and pedagogical aspects in the formation of professional competencies. Social work as an activity that involves helping people who are in particularly difficult conditions occupies a special place among sociometric professions. Hudson et al., (2021); Watts (2021) note that continuous professional development throughout life is essential for the effectiveness of this industry. It should be noted that the training of sociometry specialists is mainly studied in the context of the student period. At the same time, Pryshliak (2014) studied the role of professional associations in the development of sociometry specialists. Helping the families that have children with special needs is a particularly sensitive and problematic area that requires constant professional development.

Brown and Clark (2017) found that the attitude of parents to children with special needs is determined by a number of factors: the age of children, their physiological and psychological condition, professional employment of parents and management attitudes to the problem, emotional background of family relationships. McConnell and Savage (2015) note that caring for children with special needs is an additional stressor for parents. In this context, López-Liria et al., (2020); Bourke-Taylor et al., (2021) demonstrated the effectiveness of the programmes to increase stress resilience and optimize the mental health of parents of children with special needs. Lara and de los Pinos (2017) identified the main aspects that determine the need for social assistance to such families: imbalance of the family system, parents' neglect of their own needs, lack of basic knowledge about health and education of children with special needs, the need to adapt. Myronova (2017) stated that the development of pedagogical competence of parents in interaction with children with special needs is an important area of work. According to Hughes (2016), the main competencies of such activities include self-regulation, assessment of possible harm, decision-making in difficult situations, writing quality reports. At the same time, studies of the use of coaching in the development of the competence of specialists in working with such families are sporadic (Berezovska, 2019).

The literature review gives grounds to ascertain that there is a lack of consistent research on the use of coaching to develop the competence of specialists in working with families that have children with special needs.

### 3. Methodology

The study consisted of the following stages:

- Organizational stage (early spring of 2021) — drawing up a research plan, selecting empirical and diagnostic methods, determining samples, obtaining consent to participate in experimental work.
- Primary diagnostic test (March 2021) —collection of empirical data on the social workers' social competence with further analysis.

- Experimental stage (April — June 2021) — the implementation of coaching technology in cooperation with social workers. The work was performed by qualified specialists and was individualized to the maximum possible extent in compliance with the requirements of the method used.
- Secondary diagnostic test (July — August 2021) — recurrent collection and processing of empirical data on the manifestations of the components of social workers' social competence in working with families that have children with special needs.
- Interpretation stage (September-October 2021) — summarizing the effectiveness of the use of coaching technology.

The research procedures were conducted by the authors of the article and competent specialists who have experience in the relevant field.

The samples were formed on the basis of 17 Social Service Centres in Kyiv. The study involved specialists who had experience in the social sphere — from two to twenty years. Two samples were formed for the experiment — control (69 people) and experimental (81 people). Quantitative and qualitative composition of research groups meets the representativeness requirements. The study used a set of methods: general theoretical; testing, observation, formative experiment, statistical methods. General theoretical methods — analysis, synthesis and generalization of theoretical material. At this stage, Tiulpa (2020a) proposed the structure of social workers' social competence.

The following criteria of social workers' social competence in working with families that have children with special needs are identified.

#### Motivational-value criterion

The level of motivation for professional activity, a value understanding of the world around and their own profession in the context of the specifics of the profession. Means of diagnostics of the criterion - Job Satisfaction Test.

#### Cognitive criterion

The level of knowledge about working with families that have children with special needs. Diagnostic tool — tests to determine the level of knowledge of the social worker on the problem of interaction with the families that have children with special needs.

#### Communicative-activity criterion

Different tests that had similar topics of relevant professional assignments were conducted to measure the level of communicative skills and abilities in the primary and secondary diagnostics. Observation was used as a diagnostic tool.

#### Reflective criterion

The level of the self-analysis and self-evaluation skills in the performance of particular professional assignments. Diagnostic tool - Ontogenetic Reflection Self-Assessment Test.

The level of each criteria is determined by three levels of indicators — high, medium, low. These levels are distinguished according to test scales and particular semantic parameters of observation.

#### Testing



Included the use of tools to diagnose motivational-value, cognitive and reflective criteria of social workers' social competence. The validity of the test methods used was verified by expert evaluation. The psychologists and social workers with extensive experience (more than ten years) played the role of experts. The stimulus material of the test devices was compared with the theoretical models of the studied phenomena.

#### Observation

The observation focused on the manifestations of the communicative-activity criterion of social competence. The researchers focused on the following parameters - mastering verbal and nonverbal means of communication, the effectiveness of influence on the individual, the ability to understand and empathize, tact, taking into account age and individual characteristics in professional communication.

#### Formative experiment

The experiment is the key method used to confirm the research hypothesis. Coaching social workers to increase competence in working with families that have children with special needs was taken as an independent variable. Social workers' social competence was the dependent variable. The experimental sample was divided into subgroups 15-20 people each to introduce the formative influence. Group and individual forms of work were combined. This approach was taken to improve the effectiveness of coaching. The main topics to be mastered by the participants were: "Psychological and pedagogical characteristics of children with special needs", "Socio-psychological characteristics of families that have children with special needs", "Features of communication of social workers with children with special needs", "Features of communication of social workers with parents of children with special needs". We focused on training for work with families that have children with musculoskeletal disorders and injuries for the purity of the experiment given that the concept of "special needs" is broad.

Coaching was individualized, that is the features of each specialist were identified, thus determining the specifics of the further consultation process. Attention was focused on constant reflection of the acquired knowledge and skills. Interaction with participants was carried out both directly and remotely. Note that the control group participants were asked to study the self-learning materials independently.

#### Statistical methods

Percentage analysis, Student's t-test. These tools allow establishing the effectiveness of experimental work and trends in the criteria of social workers' social competence in working with families that have children with special needs. Data analysis was performed using computer software.

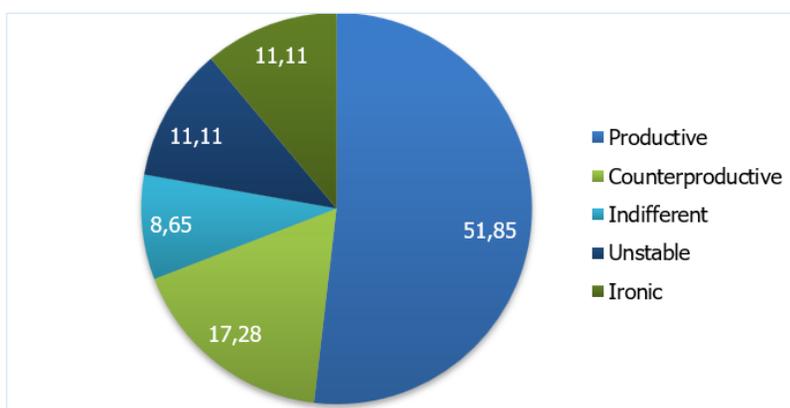
An important aspect of the study was the agreement of the participants, who resolved the ethical contradictions of the research. The content and nature of the methods used did not degrade the subjects.

## 4. Results

The study began with the identification of a number of problems that affected the effectiveness of the formative impact: insufficient or unstable motivation of participants; problems with volitional regulation of activity; passive aggression and superiority of some participants; difficulties of distance coaching, related, in particular, to the peculiarities of the use of technical equipment and the quality of communication. It should also be noted that two people from the experimental group refused to participate in the study. These specialists were not taken into account in the final data processing.

It should also be noted that two individuals from the experimental group refused to further participate in the study. Those specialists were not taken into account in the final data processing.

The results of observation of the coaching process give grounds for creating a typology of participants' behaviour (Figure 1).



**Figure 1.** Distribution of types of behaviour of research participants in the course of coaching

It was found that the largest share of the participating specialists belongs to the productive type of interaction. Such people are characterized by high motivation, focus on work, responsible attitude to the tasks and thoughtful attitude to the coach's advice. This type is the most favourable for the implementation of the programme objectives.

Less than one-fifth of the experimental group participants belong to the counterproductive type. Such persons are characterized by proneness to conflict, destructive position, reluctance to perform assignments. At the same time, the representatives of the counterproductive type did not refuse to complete the programme and continued to work.

Less than 10% of participants belong to an indifferent type of behaviour. Such participants are characterized by a lack of emotional focus and cognitive interest in the lessons. The complete the assignments automatically, without any enthusiasm.

Percentages of representatives of unstable and ironic types distributed equally. Participants with an unstable reaction are people who have periods of interest and indifference in relation to self-development. Specialists of the ironic type are characterized by sarcasm, irony, arrogance in relation to the coach's and developmental assignments. Such individuals complete assignments, but there are problems with the emotional background of coaching.

The problems that arose with these participants were solved through the individualization of the approach. Coaches tried to clearly focus and define the goals of participants who behaved unproductively. The strategy of some participants became more constructive in the process of implementing coaching technology. At the same time, fatigue and indifference replaced the initial constructive position of three participants.

It was found that the participants were more enthusiastic about acquiring practical skills than learning theoretical material. Topics related to particular communication practices were also perceived with more interest than general information on children with special needs. The participants were quite emotional about the classes which simulated situations of interaction with the families that have children with special needs.

Below, we analyse the results of empirical research and formative experiment for each of the studied criteria (Table 1). The results of the initial diagnostic test indicate the similarity of the distributions of empirical data in the experimental and control groups.

**Table 1.**

*Dynamics of the levels of criteria of social workers' social competence in working with families that have children with special needs.*

Components of social competence	Levels	Number for the surveyed							
		Control group				Experimental group			
		Before the influence		After the influence		Before the influence		After the influence	
		%	No.	%	No.	%	No.	%	No.
<b>Motivational-value</b>	Low	24.64	17	26.09	18	25.93	21	6.17	5
	Medium	69.57	48	71.01	49	66.67	54	70.37	57
	High	5.79	4	2.9	2	7.4	6	23.46	19
<b>Cognitive</b>	Low	14.49	10	26.09	18	18.52	15	4.94	4
	Medium	60.87	42	62.32	43	64.2	52	51.85	42
	High	24.64	17	11.59	8	17.28	14	43.21	35
<b>Communicative-activity</b>	Low	26.09	18	23.19	16	27.16	22	7.4	6
	Medium	55.07	38	59.42	41	51.85	42	54.32	44
	High	18.84	13	17.39	12	20.99	17	38.28	31
<b>Reflective</b>	Low	31.88	22	30.44	21	32.1	26	13.58	11
	Medium	60.87	42	62.32	43	58.02	47	51.85	42
	High	7.25	5	7.24	5	9.88	8	34.57	28

The dominance of the medium levels of the motivational-value criterion is recorded. At the same time, low levels of professional motivation and attitude to the profession were found in about a quarter of respondents. High values of the criterion were diagnosed in only a few people.

The medium values dominate in the analysis of trends in a cognitive criterion. A quarter of respondents were diagnosed with high rates. Low values of the cognitive component are lower compared to similar indicators of the motivational-value criterion.

The dominance of medium levels of manifestations of the communicative-activity criterion is recorded. The share of people with low values of the component prevails, compared to the percentage of people with high levels of manifestations.

Approximately one third of the respondents showed low indicators of the reflective criterion of social competence. A high level was recorded in five specialists surveyed. There is a tendency for the predominance of medium levels.

The formative influence resulted in the 19.76% decrease in the indicators of the motivational-value criterion in the experimental group. The share of people with medium levels slightly increased. At the same time, high values increased in 16.06% of respondents. The control group showed insignificant changes, which indicates that the independent assimilation of information does not promote the increase of motivational indicators.

The share of individuals with low rates for cognitive criteria decreased by 13.58% in the experimental group after formative influence. The medium level of knowledge about the families that have children with special needs decreased in 12.35% of respondents. Significant growth of high indicators of cognitive

criterion — 25.93% of respondents — comes into notice. Positive changes were also recorded in the control group. In particular, a decreased percentage of people with low levels was found in 11.6% of respondents. An increase in high rates of study was diagnosed in 13.05%. The share of people with medium values for the component has not changed in quantitative terms. That is, we can state that coaching better promotes the acquisition of professional knowledge than the simple use of educational materials in self-development. Low indicators of communicative-activity criterion changed in 13.58% of the experimental group respondents after the implementation of the independent variable. The percentage of people with medium indicators did not change significantly in quantitative terms. High indicators of activity criterion increased in 17.29% of specialists. There were no significant changes in the studied criterion in the control group.

The control group did not show any significant changes in the reflective criterion of social workers' social competence. In the experimental group, low rates of professional self-analysis decreased by 18.52% after the formative influence. The share of people with medium values decreased slightly. There were 24.69% of the experimental group members who showed an increase in high values of the reflexive criterion (Table 2).

**Table 2.**

*Indicators of Student's t-test of social competence criteria of social workers in working with families that have children with special needs*

Social competence criteria	Student's t-test	
	Control group	Experimental group
<b>Motivational-value</b>	1.03	2.23*
<b>Cognitive</b>	1.99*	3.14**
<b>Communicative-activity</b>	1.53	2.19*
<b>Reflective</b>	1.49	3.24**

The results of the analysis of percentage changes show the effectiveness of coaching technologies for the development of social competence of sociology specialists in working with families that have children with special needs. Student's t-test was calculated to finally confirm the hypothesis.

The analysis of statistical indicators showed that significant changes were recorded only for cognitive criteria in the control group. There are no statistically significant changes for other social competence components. Changes are recorded for all studied parameters in the experimental group. At the same time, coaching technologies proved to be more effective for cognitive and reflexive criteria ( $p=0.05$ ) than for motivational-value and reflective criteria ( $p=0.01$ ).

## 5. Discussion

In general, cognitive and activity criteria of social competence are better developed in comparison with the motivational and reflective component. This means that knowledge and skills of specialists are more consistent and deeper than the level of professional motivation and effectiveness of self-analysis.

The coaching technologies proved to be effective in the development of social competence, with the changes in the reflective and cognitive components being more significant. The data obtained are supported by opinions of Tidwell and Edwards (2020) on the relationship between self-acquisition of knowledge and the effectiveness of self-analysis. Lovell (2018) also associates the effectiveness of coaching with recorded responsibility of specialists for changes in the structure of professional competencies. Wolfenden (2020) considered friendly attitude and respect of the coach to the participants of the process to be an important thing. At the same time, Berezovska (2019) attached the importance to the technique of active listening,

and Kosharna (2020) — to the focus on the main components of the competence of sociometry specialists. The main stages of coaching determined by Deiorio et al (2016) have been observed in the course of formative influence.

The results obtained on the effectiveness of coaching are consistent with data of other studies on the training of sociometry specialties: teachers (Lofthouse 2019), health workers (Narayanasamy and Penney 2014), social workers (Ishchenko et al. 2022). At the same time, Granchi et al. (2021) stated in a study of surgeons' training that group coaching had a positive effect on general, communicative skills, while individual coaching has failed to provide such an effect. These data contradict the results of our study, where the combination of individual and group approach was productive. This situation can be explained by the specifics of professional development, in particular the greater emotional burnout of surgeons.

In our study, coaches relied on the available resources of specialists — their strengths. According to Richter et al., (2021), this approach confirms the effectiveness of positive psychological coaching. We also explain the effectiveness of the developed formative influence by focusing on the problematic aspects of families that have children with special needs, as Lara and Pinos (2017) noted. As in López-Liria et al., (2020), an important aspect was the focus on learning how to work with the optimization of self-regulation and stress management by parents of children with special needs.

We can state that the hypothesis was proved and the research objectives were fulfilled in the course of the research. We should note that our study focused on the professional self-development of specialists, not students, which determines the scientific significance of this research. The practical use of the obtained results is possible in the activities of teachers who train sociometry specialists, as well as the work of Social Service Centres as a basis for professional self-development.

#### Limitations

Only social workers participated in the study without involving the representatives of other sociometry specialists. Besides, online interaction could limit the opportunities for coaching technologies in professional development.

## 6. Conclusions

The research is topical because of the focus on exploratory effective methods of professional self-development of sociometry specialists, insufficient coverage of problems in theoretical sources, the need for new approaches to preparing for work with families that have children with special needs.

It was established that the medium indicators of social workers' social competence dominate in working with families that have children with special needs. Cognitive and communicative-activity components are better developed, while motivational-value and reflective criteria of social competence are less developed. The developed coaching system demonstrated its effectiveness, which is confirmed by comparing the results of the control and experimental groups. The formative influence proved to be more effective in the development of cognitive and reflective criteria. Less significant changes were recorded in the motivational-value and communicative-activity criteria of social workers' social competence. The obtained results can be used as guidelines for further improvement of the developed system of professional coaching.

The obtained research results can be used for changes in the system of training and self-training of sociometry specialists. Experimental research data can also be used to optimize the strategy and tactics of professional coaching. Further prospects for scientific research are to study the impact of coaching on the self-development of not only social workers, but also other sociometry specialties.

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# The role and impact of information technology on the educational process

## El papel y el impacto de las tecnologías de la información en el proceso educativo

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### Abstract

Digital technologies have influenced various spheres of social relations, transcending national borders and legal system peculiarities. As a result, the determinants of social relations have been transformed, impacting the educational process. This study aims to examine the current state of the educational process in Ukraine concerning the application of information and telecommunication technologies. During the research, general methods of scientific inquiry were employed, including dialectical, formal-logical, and structural-functional methods, as well as several empirical methods. The conclusion was drawn regarding the necessity of restructuring elements of the educational process, primarily to enable distance learning. Also, the authors of this research identified the absence of a single correct strategy for adapting entrepreneurial entities to digital technologies. Therefore, an approach to structuring the educational process was proposed, highlighting the measures that need to be modified when utilizing digital technologies. The research findings are relevant and useful for the authorities to implement tools to influence the digitalization of education in Ukraine.

**Keywords:** information technologies, educational process, distance learning, digitalization, educational process participants, provision.

## Resumen

Las tecnologías digitales han influido en diversas esferas de las relaciones sociales, trascendiendo las fronteras nacionales y las peculiaridades del ordenamiento jurídico. Como resultado, los determinantes de las relaciones sociales se han transformado, impactando en el proceso educativo. Este estudio tiene como objetivo examinar el estado actual del proceso educativo en Ucrania en relación con la aplicación de las tecnologías de la información y las telecomunicaciones. Durante la investigación, se emplearon métodos generales de investigación científica, incluidos métodos dialécticos, lógico-formales y estructural-funcionales, así como varios métodos empíricos. Se llegó a la conclusión de la necesidad de reestructurar elementos del proceso educativo, principalmente para posibilitar la enseñanza a distancia. Asimismo, los autores de esta investigación identificaron la ausencia de una única estrategia correcta para la adaptación de las entidades emprendedoras a las tecnologías digitales. Por lo tanto, se propuso un enfoque para estructurar el proceso educativo, destacando las medidas que deben modificarse cuando se utilizan tecnologías digitales. Los hallazgos de la investigación son relevantes y útiles para que las autoridades implementen herramientas para influir en la digitalización de la educación en Ucrania.

**Palabras clave:** tecnologías de la información, proceso educativo, educación a distancia, digitalización, participantes del proceso educativo, provisión.

## 1. Introduction

The rapid development of new information and communication technologies is changing the nature of knowledge acquisition, dissemination, and development. The new technologies expand possibilities for updating the content and methods of education and enhancing access to it. They also transform the role of the teacher in the educational process, emphasizing the importance of continuous dialogue and facilitating the transformation of information into knowledge and understanding.

The relevance of utilizing digital technologies is mediated by the need to respond to emerging destructive socio-legal phenomena, such as the COVID-19 pandemic or the legal regime of martial law in Ukraine. Quality learning mechanisms must be proposed when face-to-face education is impossible. In turn, digital technologies serve as a means to simplify and provide effective learning methods. Therefore, the urgent need for the informatization of education in the context of Ukrainian realities should be purposefully and systematically carried out through the methodology, technology, and doctrinal analysis of utilizing scientific-pedagogical, educational-methodical, and software-technological developments aimed at realizing the potential of digital technologies.

## 2. Literature Review

Some of the main areas of scientific and practical research on the educational process development toward the use of digital technologies are the following:

- individualization of learning;
- features of information technology support for the educational process;
- identification of negative characteristics that characterize the state of implementation of digital technologies in the educational process; features of information technology support for distance education.

Special attention in shaping the educational process based on digital technologies is given to works that analyze the process of individualizing learning. In addition, the importance of information technology support for the educational process is substantiated in many studies by foreign and national researchers.

The electronic educational resource of the information environment of distance learning (EER IEDL) can be defined as a collection of information for educational purposes presented in electronic formats. Its mastery provides conditions for various types of learning activities. At the same time, the data reflects a particular subject area. The study of this area, as well as the selection of information from the repositories, its delivery to the learner, content navigation, and interactive mode of working with the content, are implemented using the software of the distance learning system.

The problems of organizing the learning process based on the electronic educational resource implemented using distance learning technologies in higher education institutions have also been repeatedly investigated (Korsunskaya, 2000; Kukharenyk, 1999).

The basis of this research is formed from works related to distance learning. On the one hand, such learning is an updated pedagogical technology that differs from traditional face-to-face technology without direct contact between the educator and the student (Kose & Kose, 2014). On the other hand, it is a self-contained mechanism of purposeful and methodically organized guidance in educational and cognitive activities (Simonson, Smaldino & Zvacek, 2014; Negash, Whitman Michael & Woszczynski, 2008). As for the domestic perspective on the issue, according to the statements of scholars, it is a universal, synthetic, integral, humanistic form of education that creates conditions for higher education learners. It is adapted to the basic level of knowledge and specific learning objectives (Botsula, Krechman & Plakhotnyk, 2015). Ukrainian experts in creating the Ukrainian Center for Distance Education adopted a similar interpretation. They agreed that the distance form of education would be understood as a form that utilizes global computer communications such as the Internet. It is based on the individual work of students with well-structured learning materials and active communication with educators and other students (Bykov, 2001).

Conceptually, distance learning involves receiving educational services remotely through the use of computer and communication technologies through purposeful and controlled independent activities of a higher education student. Such a student can study at a convenient location, according to an individual schedule, utilizing a set of specialized distance learning tools and coordinated opportunities for interaction with the teacher (Bilous-Osin & Panfilov, 2020).

Theoretically, there is no universally established approach to interpreting this concept: starting from its absolute universalization as a new universal form of education that can replace the traditional one and ending with its interpretation as a set of means and methods of transmitting educational information.

The U.S. National Center for Education Statistics (NCES) has identified four generations of distance learning tools when analyzing technological progress (Negash, Whitman Michael & Woszczynski, 2008). The main criteria that differentiate the characteristics of each generation are:

- the number of individuals who can interact with each other simultaneously (unilateral, bilateral, or multi-user interaction);
- the amount and type of information (voice, video data) that can be transmitted;
- the speed of information transmission.

The tools used in distance education from the mid-XIXth to the mid-XXth century (mail, radio, and television) can be characterized as one-way communication. The fourth generation of distance learning tools represents the next stage. It is characterized by improved interaction among higher education institutions (HEIs) and between HEIs and faculty, increased information transmission speed, and the ability to transmit large volumes of information. At this stage, distance learning encompasses tools from all generations, two-way video, the Internet with synchronous and asynchronous communication, and CD-ROM.

The provisions of the special legislation regarding the use of digital technologies in the educational process have been analyzed. Primarily, these provisions are outlined in the Resolution of the Cabinet of Ministers of Ukraine, "On Some Issues of Digital Transformation" (Resolution of the Cabinet of Ministers of Ukraine No. 365-r, 2021). Furthermore, Bilous-Osin T. I. (2022) correctly emphasized in this regard that the idea of digital transformation in the chosen sphere is reflected through:

- a) creating an information system intended for competitive funding of scientific research;
- b) establishing an electronic system for accessing existing scientific information resources, an electronic scientific information system;
- c) establishing a registry of Ukrainian research infrastructures;
- d) developing the Ukrainian scientific citation index;
- e) creating an electronic system for awarding scientific degrees and conferring academic titles;
- f) modernizing the document submission systems and conducting state accreditation of research institutions and higher education establishments in terms of their scientific activities;
- g) ensuring the development of an academic text repository and connecting it with local repositories.

In general, the prioritized directions for transforming education include the following:

- automation of the admissions campaign,
- organization of recruitment and training (internship) for foreigners and stateless persons,
- ordering education documents and their European-style supplements,
- implementation of electronic licensing,
- modernization of the Unified State Electronic Database on Education,
- creation and modernization of a unified electronic monitoring system for graduates' employment, and so on (Resolution of the Cabinet of Ministers of Ukraine No. 365-r, 2021).

It should be noted that the educational process design based on the use of digital technologies is constantly changing. In EU member states, high quality of knowledge is ensured through the academic nature of courses, consideration of market needs, and increased responsibility of higher education recipients for the quality of their knowledge, as they are the main controlling link in the learning process (Wilson, 2018). The most interesting are training programs using new information technologies, including satellite television, computer networks, media, etc. An illustrative example in this regard is the National University of Distance Education (Universidad Nacional de Educacion a Distancia-UNED) in Spain, which includes 58 educational centers in the country and 9 abroad (Rogers, Berg, Boettecher, Howard, Justice & Schenk, 2009).

### 3. Aims

The research aims to identify possible ways of using digital technologies in the educational process by addressing the following research tasks:

- determining the current state of digital technology utilization in education;
- analyzing priority directions for the development of digital technology utilization in the specified field;
- outlining the characteristics of distance education as a sphere that requires maximum digital transformation.

### 4. Materials and Methods

The educational process and its components define the peculiarities of the subjective dimension of organization and its normative regulation regarding the use of digital technologies. Therefore, the research on the mentioned issue employed the method of retrospective analysis. This method allowed identifying the usage of digital technologies in implementing distance education from the moment of Ukraine's

independence to the present. Furthermore, the formal-dogmatic method and the method of comparative analysis enabled the comparison of normative provisions related to the use of digital technologies.

The dialectical method was used to determine the national regulatory acts governing the educational process in Ukraine. The method of comparative analysis was employed to investigate international practices of using digital technologies in education. The modeling method was utilized to delineate the structure and ensure the elements of the educational process in the digital era. Meaningful blocks were identified to systematically address the problem, characterizing homogeneous groups of social relations using the structural-functional method.

## **5. Results**

In Ukraine, the right to education is enshrined at the constitutional level and expressed through the following powers: the right to unimpeded access to education, free education, and, if necessary, the right to receive education in the language of national minorities (Article 53) (The Constitution of Ukraine, 1996). The right to education applies to any level, form, and type of education, including vocational (professional-technical), specialized secondary, higher education, and adult education (Law No. 2145-VIII, 2017). The educational process should occur by properly providing state funding for relevant socio-economic, educational, and scientific programs, creating conditions for effective and accessible educational services (Law No. 1556, 2014).

To fulfill these tasks, the state, through authorized bodies, should take all necessary measures, including ensuring access to higher education under any circumstances. It includes the functioning of social relations in education during quarantine measures (Decree of the Cabinet of Ministers of Ukraine No. 211, 2020) and under the conditions of a legal regime of martial law (Law No. 2102-IX, 2022). In such a situation, the use of distance learning instead of full-time and part-time forms has become a way to ensure the right to education.

The priority of the aforementioned direction was indicated in the National Strategy for the Development of Education in Ukraine until 2021. This document identifies the implementation of information and communication technologies as a priority for educational development, aiming to improve the educational process, accessibility, and efficiency of education and prepare the younger generation for life in an information society. The measures aimed at achieving this goal include:

- creating an information support system for the educational process to fulfill its main functions (providing education, socialization, internal control over the implementation of academic standards, etc.);
- providing vocational and higher educational institutions with educational computer complexes;
- creating electronic textbooks and scholarly encyclopedias;
- establishing a distance learning system, including for individuals with special educational needs, and so on (Decree of the President of Ukraine No. 344/2013, 2013).

Regarding the key direction of using digital technologies in the educational process, providing distance learning is the primary focus. It creates an opportunity for the organic integration of educational, scientific, and innovative activities in the educational process. Furthermore, it involves creating the following necessary conditions for participants in the educational process:

- to realize their abilities and talents;
- spreading knowledge among the population;
- raising the educational and cultural level of citizens;
- establishing international connections;

- engaging in international education, science, sports, art, and cultural activities (Law No. 2145-VIII, 2017).

The Regulations on Distance Learning (Decree No. 466, 2013) contain a more comprehensive definition of distance learning. Accordingly, distance learning is an individualized process of acquiring knowledge, skills, abilities, and cognitive activities. This process occurs through remote participants' interaction in the educational process within a specialized environment. It operates based on modern psychological, pedagogical, and information and communication technologies (Decree No. 466, 2013).

Conceptually, distance learning involves receiving educational services remotely, primarily without physically attending a higher education institution, using new computer and communication technologies. Thus, distance and correspondence learning defines the technical level of the tools inherent to them as distinctive features applied in the learning process. The basis of distance learning is purposeful and controlled intensive independent work of higher education students. They can study at a convenient location, follow an individual schedule, utilize specialized learning tools, and maintain communication with the teacher through telecommunication.

The characteristics of distance learning, in comparison to traditional education, usually include the following definitions:

- 1) flexibility: In distance education, students have the ability not to attend regular lectures and seminars but instead work at their own convenient time, place, and pace. It is a significant advantage for those who cannot or do not want to disrupt their routines. Each individual can learn as much as they need to master the subject and obtain the necessary credits for the selected courses, thus providing fundamentally new access to education while maintaining its quality;
- 2) modularity is ensured by structuring the curriculum to meet individual or group needs;
- 3) parallelism combines the main professional activities with learning, essentially "without interrupting production";
- 4) asynchrony: During the learning process, the teacher and the student can implement teaching and learning technologies independently in time, according to a convenient schedule and pace, using email, software designed for user devices, and other information technology tools;
- 5) coverage: It ensures access to various sources of educational information (electronic libraries and databases) and communication with participants in the educational process through communication networks or other information technology means.

Thus, distance learning involves transmitting information about specific content (knowledge, skills, and abilities), and which ultimate goal is the student's ability to use this information in their activities.

It is necessary to form the corresponding strategic components to ensure distance learning based on digital technologies, as reflected in *Table 1*.

**Table 1.**  
*The characteristics of strategic components of digital-based distance learning*

Strategic components	Features of the elements that form the components
<b>Strategic principles of DL</b>	
<b>Management style</b>	Human-centered, aimed at the student
<b>Interactivity</b>	High level of digital technology use
<b>Means of transferring learning content</b>	Fourth generation

Strategic components are ensured by the influence of external factors such as "culture" and "technics and technology." In this case, the "culture" factor determines the high level of individualization of societal consciousness, which defines the necessity of forming interactive learning systems. The "technics and technology" factor represents the high level of technical development of educational tools. However, achieving the aforementioned characteristics is a necessary but insufficient condition for forming interactive learning. The final element that needs to be considered in this process is the application of technologies that can implement the principle of interactivity, namely interactive didactic technologies (Kivalov & Bila-Tiunova, 2020).

Based on the conducted analysis, two levels of distance education in Ukraine can be distinguished:

- education as a whole comprises a set of learning courses
- a training course as a basic element.

It should be noted that the means of ensuring interactivity in education at these two levels are different. In the first case, the basis for providing interactivity lies in communication technologies and organizational measures that contribute to the integration into a unified system of distance education. In contrast, interactive didactic technologies are implemented based on "advanced" computer technologies in the second case. Therefore, the authors believe the next step in developing distance learning should be the intensive provision of interactivity in training courses as the essential element of didactic distance education.

**Table 2.**

*The structure of the educational process in the context of digital technologies*

<i><b>Element</b></i>	<i><b>Methods of provision</b></i>	<i><b>Influence factors</b></i>
<b>Provision of the educational program</b>	Information support Human resources support Material and technical support Educational and methodological support	Globalization Humanization Informatization
<b>Learning environment</b>	Form of study Methods of study Approaches to learning	

In connection with this, the authors again emphasize the importance of the comprehensive development of interactive instructional courses as essential elements. *Table 2* presents a vision of structuring the educational process and the methods of ensuring that need to be modified while applying digital technologies.

## 6. Discussion

The main determinant of implementing digital technologies in the educational process is their perception and mastery by the participants: educators and students at all levels of education. The issue of using information and communication technologies in higher education remains relevant. In this regard, let us focus on the conclusions of Kivalov, S., & Bila-Tiunova, L. R. regarding the feasibility of implementing online seminar (webinar) technologies, which involve comparative tables, presentations, videos, and so on. Through the use of internet technologies, an online seminar retains the main characteristic of a workshop - interactivity. It provides for modeling the functions of the presenter and the audience, who work interactively. That requires significant consolidated efforts from departments, information centers, laboratories, and libraries to provide high-quality problem-oriented resources, consequently ensuring knowledge acquisition. Using educational platforms such as Moodle is beneficial, where teachers can share their developments and organize learning assessments.

If educators are motivated to use information and communication technologies, traditional teaching materials can be replaced by virtual manipulatives. Thus, the use of information and communication technologies in education depends on the choice of educators to adopt new teaching techniques (Kivalov & Bila-Tiunova, 2020).

The use of digital technologies is significant in any educational process. Its impact on overall educational effectiveness remains particularly noteworthy. For instance, Cavanaugh, C. S. (2001) examined the effectiveness of interactive distance education in teaching through 19 experimental and quasi-experimental studies involving 929 participants. The findings showed a more positive effect regarding interactive distance learning programs that combine individualized approaches with traditional classroom instruction. In a study by Altinay, F., Altinay, M, Dagli, G., & Altinay, Z. (2019), the authors concluded that distance education contributes to equal opportunities. Individuals need to recognize their role in the accessibility process, institutional support, technological infrastructure, student support, learning environment, and equality-based distance learning programs that promote lifelong learning.

The issue of studying participants' perceptions in the educational process regarding the use of digital technologies still needs to be solved. In this regard, there are studies available on reducing student anxiety and methods for addressing this condition (Schönfeld, Brailovskaia, Zhang & Margraf, 2019; Rith-Najarian, Boustani & Chorpita, 2019). Furthermore, psychological well-being, conscious choice of university, and socio-psychological adaptation significantly impact satisfaction with education, indicating the overall quality of the higher education institution. For instance, in studying the relationship between self-regulation modes, perceived stress, and academic performance, it was concluded that the degree to which a stressful situation is perceived is determined by how respondents generally react to stress (Bellino, Sinatra, de Palo & Monacis, 2017). In this regard, there are proposals for implementing training programs to enhance stress resilience among participants in the educational process. After all, the value of being able to focus attention, for example, on taking exams, is a significant indicator supporting the thesis that an assessment of their psychological state should accompany the education of Ukrainian students (Latkovska, Sidor, Goloyadova & Kalimbet, 2019).

The institutional support for using digital technologies in education is also in the stage of development. As rightly noted by Bilous-Osin T. I. (2022), the institutionalization of the priority goal, which is the use of digital technologies in education and science, holds significant importance in the activities of the Ministry of Education and Science of Ukraine. Under these circumstances, the Directorate of Digital Transformation, an independent structural unit of the Ministry of Education and Science of Ukraine, will need to reform several established working principles that serve as a practical basis for further research on the chosen issues. Among the priority tasks of the Directorate of Digital Transformation is to ensure the formulation of state policies based on continuous analysis of the state of affairs in digital transformation and digital development through the search for alternative solutions to existing problems is highlighted. Projects and initiatives of the Ministry of Education and Science of Ukraine aimed at supporting education in times of war remain essential. Moreover, the majority of such innovations are based on the use of digital technologies, which is a positive practice (for example, the launch of the Telegram bot "Info Science Bot," the conduct of free webinars in Ukrainian by the company Clarivate, the opening of the ERA4Ukraine portal to provide informational and support services to educators, and so on).

## 7. Conclusions

The authors of this study have concluded that during destructive social phenomena, the way to ensure the right to education is through distance learning instead of face-to-face and correspondence forms, effectively enabled by digital capabilities. It has also been established that to facilitate distance learning based on digital technologies, the formation of corresponding strategic components is necessary: management style, interactivity, and means of content delivery. The authors have proposed a vision of structuring the

educational process by identifying elements such as curriculum provision and learning environment, as well as the ways to ensure them, which need to be modified while applying digital technologies.

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# The effectiveness of the grammar translation method for learning English in higher education institutions

## La efectividad del método de traducción gramatical para el aprendizaje del inglés en instituciones de educación superior

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### Abstract

The aim of the article is to investigate the impact of the Grammar-Translation Method, an approach prioritizing translation and grammatical understanding in language learning, on the development of foreign language writing competence among students studying English in higher education institutions (HEIs). Testing methods, expert evaluations, and statistical analysis were employed. Significant differences were found across all criteria ( $p \leq 0.01$ ) using both the Mann-Whitney test and the Wilcoxon test. The data gathered affirm the high effectiveness of the Grammar-Translation Method in building foreign language writing competences among HEI students. This result is attributed to the universality of the method, emphasizing work with text and its grammatical features. Future research should aim to identify effective methods for developing various components of foreign language competence in HEIs.

**Keywords:** Foreign language competence, higher education, innovative education, linguistic didactics, foreign language.

## Resumen

El objetivo del artículo es investigar el impacto del método de traducción gramatical, un enfoque que prioriza la traducción y la comprensión gramatical en el aprendizaje de idiomas, sobre el desarrollo de la competencia en escritura de idiomas extranjeros de los estudiantes en instituciones de educación superior (IES) al estudiar inglés. Se utilizaron métodos de prueba, evaluaciones expertas y análisis estadístico. Se encontraron diferencias significativas en todos los criterios ( $p \leq 0.01$ ) tanto con la prueba de Mann-Whitney como con la prueba de Wilcoxon. Los datos obtenidos respaldan la alta efectividad del método de traducción gramatical para desarrollar competencias de escritura en idiomas extranjeros en estudiantes de IES. Este resultado se atribuye a la universalidad del método, que enfatiza el trabajo con el texto y sus características gramaticales. Se propone que investigaciones futuras se orienten a identificar métodos efectivos para desarrollar varios componentes de la competencia en idiomas extranjeros en las IES.

**Palabras claves:** Competencia en lengua extranjera, educación superior, educación innovadora, didáctica lingüística, lengua extranjera.

## 1. Introduction

The relevance of this study is determined by the growing popularity of the English language in all areas of life. It has long become the language of scientific and technical progress, and in recent decades has been gaining its place in the segment of professional competences of a 21<sup>st</sup> century specialist. English is an integral characteristic of an educated and competitive person. In current realities, knowledge of foreign languages is one of the key requirements for graduates of HEIs in the labour market. The underlying reason is a number of qualification requirements for English language skills (reading foreign literature, correspondence with foreign colleagues, self-presentation). Therefore, the education system is tasked to find effective approaches to high-quality teaching of the English language in HEIs.

It was established based on the results of the review of scientific literature and pedagogical experience that the issue of building students' foreign language written speech competence remains poorly studied. The essence and structural components of the written foreign language competence of students of HEIs was not determined. A single set of didactic tools for building students' foreign language written speech competence was not defined. Approaches, principles and organizational and pedagogical conditions of learning foreign language written communication using the grammar translation method were not identified, criteria and levels of students' foreign language written communication competence were not determined. The diagnostic tools for identifying the level of foreign written language competence were not specified.

The grammar translation method is of key importance in the training of future specialists. Future specialists need a fairly good perception of information on a narrow topic. Scientific texts are dominated by special vocabulary (terminology) and certain grammatical constructions (complex coordination, complex addition, passive verb form, impersonal sentences). Even with excellently developed communication skills, it is quite difficult for future graduates of HEIs to understand academic English in the scientific field. Therefore, teaching English should include a detailed and thorough study of the grammatical system (Djauhar, 2021).

A grammar translation method is currently one of the effective means of building foreign language competences in English (Ishchenko et al., 2022; Rose et al., 2021).

The general trend of educational interest of the generation of students born in the 2000's is worth noting. Young people have low learning motivation. Accordingly, the education system must accept the challenge of finding an effective and modern educational method that would satisfy all participants of the educational process. In this regard, it is worth considering the introduction of innovative educational technologies into

the educational process. So, a balanced combination of traditional pedagogical methods (in particular, the grammar translation method) and new technologies is of key importance in teaching English to students of HEIs (Benati, 2018).

Students of HEIs willingly study grammar, the specifics of their thinking enables them to perceive information in the form of tables and charts well. Most often, they build their own system of learning, memorizing and using language rules (Khamkaew, 2022). This analytical approach extends to the study of vocabulary — students build analogies, analyse the composition of words, willingly work with a dictionary. Spontaneous speech is, however, more difficult for them. Students usually try to build utterances from ready-made blocks of tokens and grammatical constructions. Their accuracy in the use of words and rules is significantly higher, but such a selection significantly increases the time of completing the assignment (Rachman, 2021).

Comprehension of written speech is improved through the use of translation in classes. As students tend to analyse by drawing parallels with their native language, they understand the text, as well as learn grammatical rules faster. Translation is also necessary in learning highly specialized vocabulary. Working with a dictionary is welcome here, as a word can often have several meanings depending on the field of use. This further increases the degree of learning of the material, as most often students are familiar with these terms from other subjects (Milawati, 2019).

It is worth noting that it is advisable to use the grammar translation method at the initial stages of learning English in HEIs. It is necessary to lay a solid foundation for further language learning in the first year of study. The level of knowledge of yesterday's schoolchildren can, first, be significantly different, and second, this knowledge is often not enough for further study of English for special purposes (Lestary, 2019). Therefore, the first block of training should consist of learning and repeating grammar rules, where the grammar translation method has the highest productivity. Relying on translation enables learning the rules based on your native language, and also closes gaps in vocabulary knowledge. The speed of information perception in English gradually increases, which enables moving on to narrower topics at the next stages (Milan, 2019).

The aim of the article is to study the effectiveness of the use of the grammar translation method in educational activities as a means of improving the academic performance of students of HEIs while learning English.

### **Objectives/Questions**

1. Identify the dynamics of the components of written foreign language competence of students of HEIs.
2. Identify statistically significant changes in the level of students' foreign language written competence.

### **2. Literature Review**

It should be noted that there is a sufficient number of studies on the problems of learning written English. The studies on the specifics of teaching English with a focus on academic writing are significant for this research. Alwil (2019) provides the definition of foreign language written competence. The author notes that it is related to academic language and consists in the ability to use grammatical constructions in written communication. The author expresses an opinion about the importance of building future specialists' written foreign language competence. This is explained by further need to study large volumes of scientific and technical literature. Al-maamari (2021) notes the great importance of learning the academic English language. According to the author, this necessity is determined by the challenges of modern society. English is the language of science and technology, and there is an urgent need to master written communication. This is useful not only when working with scientific and technical documentation, but also when establishing

business communication. Chen (2018) and Menaka and Sankar (2019) emphasize a great importance of the English language. There is a need to establish interpersonal communication at the current stage of the development of social international relations. According to the authors, English is a universal international language tasked to solve this problem. Written English appears here as the language of modern business communication and becomes an important component of general professional competence. In particular, Hull (2018) notes the importance of learning English. The author draws attention to the importance of building the ability to understand the written language in the entire context. The ability to single out the main thoughts and ideas from a text is considered important.

In turn, Kahramonovna (2021) discusses the importance of developing methods for building foreign language written competence. The author examines the set of methods of teaching English, distinguishing the approaches to studying writing skills. The author insists on the need to develop methods of teaching written communication. This is connected with the development of didactic science and the possibilities of technical support of the educational process. Spahiu and Kryeziu (2021) considered the use of the grammar translation method in HEIs. The authors see the approach as an effective tool, regardless of its traditionality. Biletska (2022) holds the same opinion regarding the use of traditional methods. The author believes that an effective combination of traditional and innovative methods of teaching English can give a high academic result. It is necessary to offer students a modern and interesting method of language learning. Shamsiddinovna (2022) and Paziak (2021) discussed students' motivation to learn a language. The authors note the need to create an educational environment that can promote building foreign language competences. Learning a foreign language should not be reduced to lectures. It should become an organic part of the future specialist's everyday life. That is why the issues of motivation are of primary importance, as the authors note.

### 3. Methods

#### Design

Variable and invariable conditions for conducting experimental training were revealed in the course of the empirical research. Invariable conditions include the following factors. The number of respondents in the experimental and control groups is equal. The initial level of foreign language of students in the experimental and control groups is approximately the same. The duration of the foreign language study period and the same number of hours allocated to the study of the English language in accordance with the curriculum is the same. The means and forms of control are the same. Variable condition is the use of the grammar translation method in the study of English in the experimental group. In both groups, written foreign language competence was built during the study of the English language. However, training in the experimental groups was carried out according to the programme based on Murphy's textbooks *Essential Grammar in Use* and *English Grammar in Use*. Table 1 shows the stages of the research on the effectiveness of the grammar translation method.

**Table 1.**

*Stages of the research on the effectiveness of the grammar translation method for the study of the English language in HEIs*

Stage	Period	Description
<b>1. Research and theoretical</b>	2020	Carrying out a theoretical analysis of literature from various academic areas. Preparation of methods for studying the effectiveness of the grammar translation method in HEIs.
<b>2. Experimental</b>	2021	Carrying out an educational experiment of using the grammar translation method. Analysis of the level of components of written foreign language competence.
<b>3. Generalization</b>	2022	Analysis of results of experimental work, drawing conclusions. Providing recommendations for further research.

Source: compiled by the authors based on research results.

## Participants

The experiment involved 202 students majoring in Pedagogical Education at the National Pedagogical Dragomanov University (Kyiv) who studied from 2020 to 2022. A total of 202 participants of the pedagogical experiment were divided into the experimental group (104 students) and control group (98 students). Students of the 3<sup>rd</sup> and 4<sup>th</sup> year participated in the experiment, which enabled carrying out research at different stages of education with different durations of approbation of the grammar translation method. A group of 30 experts from among teachers of the Department of English Language and Literature took part in the study.

## Instruments

The capabilities of Google Forms were used for the survey. Data entry and processing was carried out using Microsoft Excel and SPSS Statistics 15.0. All data are given in relative (% of the number of respondents) values.

## Data Collection

1. *Testing.* The level of students' written foreign language competence was identified with the help of this method. Testing was carried out according to the educational thematic plan throughout the entire period of the experiment. The Cronbach's alpha reliability coefficient is 0.71.
2. *The method of expert evaluations.* The method was used to analyse the dynamics of students' academic performance and the level of written foreign language competence according to the criteria. Three criteria were identified: theoretical, methodological and technological. The Cronbach's alpha reliability coefficient is 0.69.

## Analysis of Data

1. The analysis of the obtained results was carried out using the  $\chi^2$  criterion, which was determined by the formula 1:

$$\chi^2 = (f_1 - f_2)^2 / (f_1 + f_2) \quad (1)$$

where  $f_1$  and  $f_2$  — frequencies of compared samples (Plomp, 2020).

2. The Cronbach's alpha reliability coefficient indicates the internal consistency of the test items. The Cronbach's alpha is calculated by the formula 2:

$$\frac{N}{N-1} \left( \frac{\sigma_x^2 - \sum_{i=1}^N \sigma_{Y_i}^2}{\sigma_x^2} \right) \quad (2)$$

where  $\sigma_x^2$  – total test score variance;

$\sigma_{Y_i}^2$  –  $i$  element variance. Values in the range of 0.7 - 0.8 are considered satisfactory (Ali & Bhaskar, 2016).

3. The methods of non-parametric statistics were used. Mann-Whitney test for two independent samples, Wilcoxon test for paired samples were used.

### Ethical Criteria

The research was based on the principles of academic integrity and ethics. All research participants gave their informed consent for the processing of the obtained data and their subsequent publication. Tools and methods correspond to the aim and objectives of the research, meet the criteria of validity, consistency, professionalism and objectivity.

### 4. Results

The value of the chi-squared test was determined at the beginning of the experiment, which indicates the same levels. Quantitative evaluation of the level of criteria and indicators that ensure the effectiveness of the process of overcoming interference in the course of teaching the use of prepositions of a second foreign (German) language of 3<sup>rd</sup>-year students was carried out at the summative stage of the experiment. Table 2 presents calculation data.

**Table 2.**

*Quantitative evaluation of the criteria and indicators of the written foreign language competence of students of HEIs (summative stage of the experiment)*

	Control group			Experimental group			Xi
	H	C	B	H	C	B	
<b>Levels of the indicators of written foreign language competence</b>							
<b>Theoretical criterion</b>							
<b>Knowledge of the functional parts of speech</b>	55.1%	34.7%	10.2%	56.6%	32.1%	11.3%	<b>0.09</b>
<b>Knowledge of the independent parts of speech</b>	40.8%	42.9%	16.3%	45.8%	43.2%	11.0%	<b>0.58</b>
<b>Technological criterion</b>							
<b>The ability to anticipate the use of different parts of speech according to their function</b>	63.4%	28.6%	8.2%	64.2%	24.4%	11.4%	<b>0.42</b>
<b>Methodical criterion</b>							
<b>The ability to independently study educational literature in order to learn new grammatical constructions</b>	71.4%	24.5%	4.1%	71.7%	26.4%	1.9%	<b>0.46</b>

Source: compiled by the authors based on research results.

The analysis of the data presented in Table 2 shows that the level of the indicator of the theoretical criterion, which reflects methodological knowledge of the particularity, indicates a significantly low level of this indicator. However, it should be noted that the percentage showing a low level of methodological knowledge is the highest. This trend indicates the insufficiency of professional training of students on the written language.

So, an insufficient level of theoretical and methodical knowledge necessary for adequate use of the written language was found during the summative stage of the experiment. A low level of methodological skills was also stated through the fact that most students were unable to conduct a multi-aspect analysis of text fragments aimed at teaching the use of prepositions. In most cases, students could not offer adequate techniques and methods that contribute to overcoming the interference that occurs in the process of learning prepositions where English was being learnt as a foreign language. It should also be noted that the data in Table 2 confirm the same level of knowledge and skills for each indicator in the control and experimental groups at the summative stage of the experiment. The level of written foreign language competence at the end of the experiment is presented in Table 3.

**Table 3.**

*Quantitative evaluation of criteria and indicators of written foreign language competence of students of HEIs (final stage of the experiment)*

	Control group			Experimental group			Xi
	H	C	B	H	C	B	
<b>Levels of the indicators of written foreign language competence</b>							
<b>Theoretical criterion</b>							
<b>Knowledge of the functional parts of speech</b>	49.0%	38.8%	12.2%	26.4%	45.3%	28.3%	<b>6.92</b>
<b>Knowledge of the independent parts of speech</b>	55.1%	34.7%	10.2%	26.4%	43.4%	30.2%	<b>10.64</b>
<b>Technological criterion</b>							
<b>The ability to anticipate the use of different parts of speech according to their function</b>	57.1%	36.7%	6.1%	35.8%	41.5%	22.6%	<b>7.38</b>
<b>Methodical criterion</b>							
<b>The ability to independently study educational literature in order to learn new grammatical constructions</b>	57.1%	32.7%	10.2%	28.3%	37.7%	34.0%	<b>11.58</b>

Source: compiled by the authors based on research results.

As Table 3 shows, it was possible to significantly reduce the percentage of students who have a low level of knowledge and skills for the methodical criterion, which indicates an increase in the level of educational skills. Developing the ability to anticipate and correct possible errors is very important for effective written communication.

Additionally, the levels of indicators that ensure the effectiveness of the process of learning the written language during training were compared in the course of research and experimental work (Table 4). The obtained empirical data of the chi-squared test show a reliable coincidence of the levels of the studied indicators with a 5 percent probability of error, which indicates a slight change in the indicators in the control group.

**Table 4.**

*Statistical evaluation of the criteria and indicators of written foreign language competence of the students of the control group*

	<b>Chi-squared</b>
<b>THEORETICAL CRITERION</b>	
Knowledge of the functional parts of speech	0.36
Knowledge of the independent parts of speech	0.67
<b>TECHNOLOGICAL CRITERION</b>	
The ability to anticipate the use of different parts of speech according to their function	0.88
<b>METHODOLOGICAL CRITERION</b>	
The ability to independently study educational literature in order to learn new grammatical constructions	1.12

Source: compiled by the authors based on research results.

Moreover, the indicators of written foreign language competence were also compared in the course of the experiment based on the results of the summative and formative stages (Table 5). The obtained results testify to the reliability of the differences in the levels of the experimental group according to the studied indicators, which is 95%. This indicates a significant increase in the number of students with high indicators that testify to the high levels of written foreign language competence during training in the experimental group at the final stage of the experiment.

**Table 5.**

*Statistical evaluation of the criteria and indicators of written foreign language competence of the students of the experimental group*

	<b>Chi-squared</b>
<b>THEORETICAL CRITERION</b>	
<b>Knowledge of the functional parts of speech</b>	3,78
<b>Knowledge of the independent parts of speech</b>	4,67
<b>TECHNOLOGICAL CRITERION</b>	
<b>The ability to anticipate the use of different parts of speech according to their function</b>	7,80
<b>METHODOLOGICAL CRITERION</b>	
<b>The ability to independently study educational literature in order to learn new grammatical constructions</b>	10,8

Source: compiled by the authors based on research results.

The obtained results indicate the need for further improvement of the methodology of learning written English in order to increase its efficiency. The pedagogical experiment also involved checking the effectiveness of the developed algorithm and the system of assignments and supports that were used when implementing the grammar translation method. Table 6 presents a comparative analysis of the results of students according to the criteria of written foreign language competence in the experimental and control samples from the non-parametric Mann-Whitney test after the implementation of the experimental training programme.

**Table 6.**

*Comparison of values according to the criteria of written foreign language competence in the experimental and control samples at the control stage (after training)*

Criteria for the level of written foreign language competence	Mean		Reliability criteria	
			Mann–Whitney U test	Wilcoxon test
1 Mastery of ways to control foreign written expressions depending on the communicative situation	2.01	2.55	914	308
2 The level of sociocultural competence	0.88	2.00	506	118
3 The level of linguistic competence	1.24	2.33	746	209
4 High learning motivation	1.80	2.60	922	156
5 Adequate self-assessment of the performance	2.35	2.71	1,107	285

Source: compiled by the authors based on research results.

The Mann-Whitney non-parametric test revealed that the differences in indicators of written foreign language competence in EG and CG after the experimental training are within the range of statistical significance. The results obtained during the experiment confirm the assumption that the applied method of building foreign written language competence of students of HEIs is effective. So, it can be stated that the aim of the research has been achieved.

## 5. Discussion

The method of building written foreign language competence of students of HEIs has an integrative basis and is a set of forms, techniques, means, as well as organizational and pedagogical conditions. Ahmed et al., (2021) note that the methodology of building written foreign language competence using the grammar translation method was verified in the course of many studies. As Griffen et al., (2021) and Corvo Sánchez (2021) noted, the grammar translation method is a traditional method of learning written English. Despite the remoteness of its creation, the method continues to demonstrate high efficiency in preparing students for written foreign language communication. The criteria, indicators and levels of students' written foreign language competence were determined, methods of diagnosing the foreign written language competence level were determined, and the primary diagnostic sequence was also carried out during the summative stage of the experiment.

As Hussain et al., (2022) and Lee J. S. and Lee K. (2019) stated in their studies, the grammar translation method contributes to the development of all components of written foreign language competence. This fact is evidenced by the results of this study. The obtained results confirm the previously obtained data and testify to the high level of efficiency of the considered method. At the same time, there are a number of studies in which the effectiveness of the grammar translation method is treated quite sceptical. For example, Kaharuddin (2018) and Pavlenko (2021) provide data on the low efficiency of the considered method in comparison with other innovative technologies. The authors make careful suggestions regarding the need to find new, more effective technologies for teaching written speech and academic style in HEIs. In accordance with the programme, written foreign language competence of students was built on the basis of developed educational programmes intended for students of HEIs, as well as a set of didactic tools.

A study by Omar (2019) examines a number of popular teaching aids in written English that can be adapted when learning English using a grammar translation method. On the contrary, Dandu et al., (2021) and Anabokay and Suryasa (2019) indicate the need to create user-friendly and effective teaching aids. The research shows that existing educational literature tends to lose its relevance for a number of reasons. The main reason is outdated methods and approaches to studying modern English grammar.

The validity and reliability of the research results is determined by the detailed study and setting of the research objectives, the selection of the most relevant research methods. The justification is also confirmed by a wide approbation of the developed English language learning methodology, as well as the use of statistical methods of data processing and the possibility of reproducing the main research results in the course of subsequent experiments.

The theoretical significance of the study is reflected in the following statements. A method of studying the effectiveness of the educational approach in the development of components of foreign language competence was been elaborated. The appropriateness of using the grammar translation method of teaching, which involves mastering the skills of using grammatical constructions in written speech based on taking into account not only grammatical, but also lexical and sociocultural aspects, was proved. A multi-aspect analysis of the functioning of independent and auxiliary parts of speech is conducted, which is based on due regard to the connections conveyed by grammatical constructions. The results of this analysis can significantly increase the effectiveness of the process of learning a foreign language in HEIs. The practical significance of the study is the developed algorithm for studying the effectiveness of the grammar translation method.

The main limitations of the study were methodological in nature. There are no direct variables that would enable tracking the dynamics of building written foreign language competence when using the grammar translation method.

## 6. Conclusions

*The relevance* of the study is determined by the need to find effective approaches to learning English in HEIs. The grammar translation method of learning English was considered as an effective method of acquiring written foreign language competences. *Research findings.* The study revealed positive dynamics for all the studied indicators that in the process of applying the grammar translation method. The number of students with medium and high indicators of components of written foreign language competence increased. The students of the experimental group did not show sharp dynamics, and the competence improved within the range of the anticipated results. All the foregoing gives grounds to conclude about the high efficiency of the grammar translation method considered in the study. The conducted comparative analysis of indicators revealed significant differences for all criteria ( $p \leq 0.01$ ), both according to the Mann-Whitney test and the Wilcoxon test. *Applications.* The results of the study can be useful to everyone who wants to improve the study of written English in HEIs. First of all, the article will be useful for English language teachers who want to improve their linguistic and didactic skills in the field of academic English. *Prospects for future research.* Further research should focus on the search for effective and innovative methods of learning written English in HEIs.

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## Building research competence of students of technical majors in the context of distance education

### Fortalecer la competencia investigadora de estudiantes de carreras técnicas en el contexto de la educación a distancia

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#### Abstract

The aim of the study was to establish ways of developing research competence in students of technical majors in the context of distance learning, and to evaluate their effectiveness. The research methods were: comparison, Forester's method, Cohen's coefficient, Pearson's correlation coefficient. It was established that the use of the research method of teaching in the context of distance education had a high effect on the level research competence of students of technical majors. A slightly lower effect was also achieved when introducing a course on research work. The maximum effect is achieved when combining both methods of building research competence. An increase in the research competence level was found. At the same time, students' confidence in discussing research ideas with colleagues, conducting literature search, editing and shortening the text, and presenting research results also increased. Prospects for further research consist in the diagnostics of innovative methods of building research competence that can be applied in technical majors and increase the success rate of students in the context of distance education.

**Key Words:** Project method, augmented reality, gamification, self-regulated learning, innovative technologies, research method, active learning.

#### Resumen

El objetivo del estudio fue establecer formas de desarrollar la competencia investigativa en estudiantes de carreras técnicas en el contexto de la educación a distancia, y evaluar su efectividad. Los métodos de

investigación fueron: comparación, método de Forester, coeficiente de Cohen, coeficiente de correlación de Pearson. Se estableció que el uso del método investigativo de enseñanza en el contexto de la educación a distancia tuvo un alto efecto en el nivel de competencia investigativa de los estudiantes de carreras técnicas. También se logró un efecto ligeramente menor cuando se introdujo un curso sobre trabajo de investigación. El efecto máximo se logra cuando se combinan ambos métodos para desarrollar la competencia investigadora. Se encontró un aumento en el nivel de competencia investigativa. Al mismo tiempo, también aumentó la confianza de los estudiantes para discutir ideas de investigación con colegas, realizar búsquedas bibliográficas, editar y acortar el texto y presentar los resultados de la investigación. Las perspectivas para futuras investigaciones consisten en el diagnóstico de métodos innovadores para desarrollar competencias de investigación que puedan aplicarse en carreras técnicas y aumentar la tasa de éxito de los estudiantes en el contexto de la educación a distancia.

**Palabras clave:** Método de proyecto, realidad aumentada, gamificación, aprendizaje autorregulado, tecnologías innovadoras, método de investigación, aprendizaje activo.

## 1. Introduction

The rapid development of innovative technologies causes changes in the environment. This places demands on society: training future specialists for the effective performance of professional duties in the rapidly changing environment. In other words, students must acquire the necessary competencies that will enable them to engage in lifelong learning (Leshchenko et al., 2021). It was also proved (Wishkoski et al., 2022) that people are engaged in research activities for a significant part of their life, even without always realizing it. Therefore, teachers are tasked to create conditions for the development of research competence in students during their studies at an educational institution (Astafieva et al., 2020). Specialists in any field should familiarize themselves with the current results of research in their professional field, plan their activity, and forecast its results. Research competence contributes to the creation, accumulation and dissemination of professional knowledge based on research results and previous experience.

The events of 2020, when the whole world switched to distance learning because of the pandemic (Suriagiri et al., 2022), and 2022, when Ukrainian pupils and students were forced to return to distance learning again because of hostilities in the country (Marienko & Sukhikh, 2022), posed new challenges for teachers and scientists. These include preserving and increasing the effectiveness of the educational process under new extreme conditions. Interest in the organization of distance learning arose a long time ago (Petrenko et al., 2020). The researchers have investigated its advantages and disadvantages (Ward & Lindshieil, 2020), established effective approaches, strategies and teaching methods (Rincon-Flores & Santos-Guevara, 2021). A number of learning resources have been developed and tested. But there are still difficulties in ensuring a continuous learning process due to the forced transition of students of technical majors, whose education involves a significant proportion of practical and laboratory work that involves the use of various technical real equipment, to online learning.

The aim of this research was to identify ways of building the research competence of students of technical majors, and to study their effectiveness in the context of distance education. The aim involved the following research objectives:

- 1) find out the attitude of students and teachers to distance education;
- 2) propose and implement ways of developing research competence in students of technical majors in the context of distance education;
- 3) study the effectiveness of the proposed recommendations for the organization of the educational process in building research competence of students of technical majors in the context of distance education.

## 2. Literature review

Education of students of technical majors and research activities are closely related. For example, mathematical competence is better developed in a science-oriented environment (Astafieva et al., 2020). At the same time, the educational process should be built in such a way that the student is not only an object, but also a subject of educational activity (Makhmudova et al., 2020). The student should be able not only to use the information provided by the teacher, but also to supplement it. So, learning is not aimed at memorizing information by students, but at involving them in activities during which they acquire new knowledge (Rincon-Flores & Santos-Guevara, 2021).

The research competence can be built during curricular and extracurricular (Diaz-Iso et al., 2020) research activities (Abbott, 2019). For example, many educational programmes contain subjects, the purpose of which is to build students' research competences. They should make students understand the basics of research, teach not to accept facts as truth, but to question and analyse. For this purpose, it is necessary to involve students in research activities as early as possible.

The dependence of students' success on the teaching methods used by teachers was proved. The positive impact of the research method, which develops students' skills in generating, applying and adapting new knowledge, on their learning outcomes was established (Turner et al., 2018). The effectiveness of business, educational, serious games in the development of research competence was found (Rincon-Flores & Santos-Guevara, 2021). They allow students to show their curiosity, persistence, ability to take risks, pay attention to details, solve problems and interpret the results obtained. Abbott (2019) studied the effectiveness of the business game *How to Fail Your Research Degree*, which is intended for building research competence in graduate and doctoral students.

Astafieva et al. (2020) identified the difficulties that students and teachers face when creating a research-based learning environment for learning, for example, mathematics in the context of distance learning. Makhmudova et al. (2020) also studied the effectiveness of an open system of teaching physics and mathematics in higher educational institutions (HEIs) equipped with information and communication technologies.

Innovative communication technologies play an important role not only in the development of research competence (Skantz-Åberg et al, 2022). but also in the organization of distance learning (Suriagiri et al., 2022). They enable the choice of the topics of students' research, implementing experimental and theoretical research, carrying out remote field and computational experiments, using virtual laboratories, etc. (Udeozor et al., 2021). In particular, virtual reality allows replacing risky environments, for example, in chemical engineering. Multifunctional mobile devices can help students acquire the necessary skills, including research skills (Reddy et al., 2022). They can be further successfully used in professional activities. Open network resources facilitate the organization of students' educational activities. They can be used as a means of communication between participants of the educational process to provide educational information to students. Online resources can be sources of information used by students during in-class lessons and during independent work (Kiv et al., 2019). A number of learning networks have also been established that can be used in distance education, and that contribute to improved practical outcomes (Boyd, 2019). Various online platforms for hosting interactive educational resources have also gained popularity (Ward & Lindshieil, 2020).

Improving digital competence contributes to increasing the level of research competence (Leshchenko et al., 2021). Therefore, when training researchers and scientists, it is appropriate to include a course on studying, for example, cloud technologies, platforms and services, in the curricula (Kiv et al., 2019). Additional opportunities provided by cloud technologies enable for research that is difficult to implement in real conditions, when special equipment is not available (during distance learning), unrealistic (model for

demonstrating the states of relativistic mechanics), or dangerous to use (radioactive decay). Virtual laboratories and simulators, software that enables simulating various processes can also be used. The use of such resources interlinks research competences with subject and digital ones. However, it is necessary to conduct extra-curricular online activities to improve the digital level of students (Foley & Marr, 2019).

The teacher's ability to properly design and manage a virtual classroom is important (Ghateolbahra & Samimi, 2021). It is also necessary (Huszi et al., 2022) to take into account three important components of distance learning: course structure, student autonomy and educational dialogue. The teacher must provide students with pedagogical support during their independent cognitive activities, provide a differentiated and individually creative approach, and be able to evaluate their work. One of the options for presenting the results of students' research is a poster (Arcila Hernández et al., 2022). The poster makes it possible to assess the nature, the depth of the student's understanding of the conducted research, and to carry out a critical assessment of the level of research competence.

### 3. Methods

#### Design

The research was conducted in three stages. The first stage involved studying the attitude of students and teachers to distance learning, their successful experiences and failures. The second stage provided for the development of recommendations on the organization of distance education for the students of technical majors of HEIs aimed at building research competence, as well as their implementation in the experimental groups. At the third stage, the effectiveness of the introduced recommendations was determined by comparing the level of research competence of students in the control and experimental groups. The study was conducted over two years, from September 2020 to May 2022.

#### Sample

The sample included 927 students and 17 teachers from three HEIs of Ukraine, who also acted as experts: Prydniprovsk State Academy of Civil Engineering and Architecture, Ukrainian Engineering Pedagogics Academy, State University of Telecommunications. The criterion for the selection of students was their technical major, and the teachers —teaching of technical and research-related subjects (for example, Scientific Research in Energy, Planning and Management of Energy Research & Development Projects). According to the Distance Education Perception Questionnaire, the average values of points scored by students in all experimental and control groups should have been approximately the same. A total of 271 students were included in the control group, 215 — in Experimental Group I, where the research method was introduced during the study of technical subjects, 213 — in Experimental Group II, where research competence was developed during the study of a special course on the research methodology in a particular field, and 228 — in Experimental Group III, where the research method was introduced during the study of technical subjects and a special research-related course.

#### Tool

The authors of this study used the Perception Questionnaire (Astafieva et al., 2020) to find out the students' attitude to the distance form of education in the formation of their research competence. It contained 20 questions, which were divided into 4 groups. A survey of teachers was also conducted using semi-structured interviews, and experts determined the level of students' research competence according to criteria (Leshchenko et al., 2021). Besides, the students' self-efficacy during the research was assessed according to the measures of research self-efficacy (Forester, 2004).

## Data collection

A four-point Likert scale was used to assess students' perception of distance education. Research competence was determined according to the Leshchenko's criteria:

- A high level was characterized by in-depth knowledge of the research topic, mastery of the methodology of conducting research and processing the obtained results, a high level of motivation to deepen knowledge and carry out further research (3 points on the Likert scale).
- A sufficient level was achieved by students who had knowledge of the basic concepts of the research topic, mastered the methodology of conducting research, were able to carry out research planning, information search, information processing, its analysis and interpretation. They were willing to work on improving their level of research competence (2 points on the Likert scale).
- The low level characterized students who did not have deep knowledge of the research topic. They did not master the methodology of carrying out research. They had no or weak motivation to conduct research. They did not know how to work with scientific literature. They had no desire to increase the level of research competence (1 point on the Likert scale).

The students' self-efficacy when conducting the research according to the measures of research self-efficacy (Forester, 2004) was assessed on a one-point scale, where 0 is the absence of such a skill, and 100 is perfect mastery of it.

## Data analysis

Mathematical data processing methods and Statistica software were used during data analysis. The Pearson correlation coefficient was determined, which ranged from 2.7 to 3.4 for the control group, and about 1.55 for the experimental group. When determining the self-efficacy of students during the research, the values of the Pearson correlation coefficient ranged from 30 to 103. Cohen's kappa coefficient was also established, which helped to identify the effect from using the proposed ways of building research competence.

## Ethical criteria

Participation in the study was voluntary. All participants provided their written consent to participate in the study. The survey was anonymous, free of charge. The duration of the surveys did not exceed 40 minutes.

## 4. Results

In order to reduce the impact of different perceptions of distance learning in different groups on the research results, the sample was formed with approximately the same average value in the control and experimental groups. However, the introduction of recommendations on the level of research competence of students of technical majors changed the students' attitude to distance education (Table 1).

**Table 1.**  
*Results of determining students' perception of distance education*

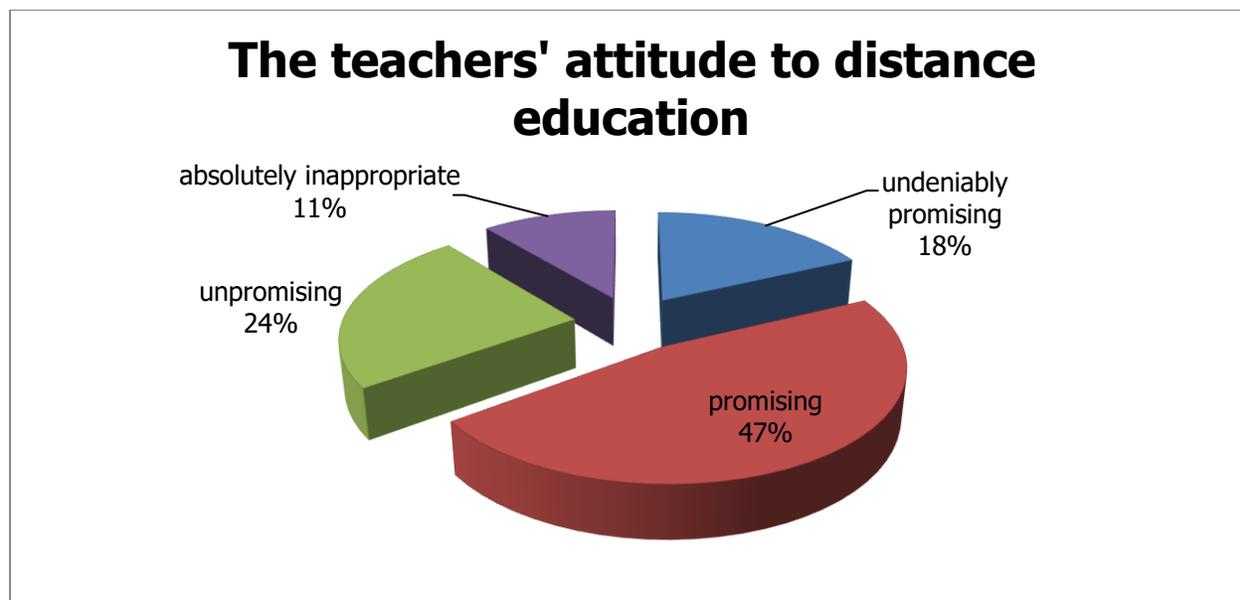
		Pre-test	Post-test (score difference)			
		All groups	CG	EG I.	EG II.	EG III.
<b>I</b>	Utility					
<b>1.1.</b>	Does the distance learning contribute to the acquisition of knowledge, skills and abilities?	2.8	+0.1	+0.3	+0.2	+0.3
<b>1.2.</b>	Does distance learning make the learning process more effective?	2.3	+0.2	+0.3	+0.2	+0.3
<b>1.3.</b>	Does distance learning contribute to the increased performance?	3.1	+0.2	+0.4	+0.2	+0.4
<b>1.4.</b>	Does distance learning enable understanding the educational material?	2.0	-0.1	+0.2	+0.1	+0.2
<b>1.5.</b>	Does the distance learning facilitate the perception of educational material?	1.8	-0.3	+0.1	0	+0.1
<b>II</b>	Computer self-efficacy					
<b>2.1.</b>	Do you have access to learning materials and resources during distance learning?	3.2	+0.4	+0.4	+0.4	+0.5
<b>2.2.</b>	Can you use all materials and resources without further explanation?	2.7	+0.6	+0.5	+0.5	+0.5
<b>2.3.</b>	Can you independently solve problems that arise in the course of distance learning?	2.9	+0.2	+0.3	+0.1	+0.4
<b>2.4.</b>	Do you have enough skills to use ICT in the educational process?	3.4	+0.3	+0.4	+0.3	+0.4
<b>2.5.</b>	Are there technical difficulties that prevent distance learning?	3.5	-0.4	-0.7	-0.3	-0.7
<b>III</b>	Simplicity					
<b>3.1.</b>	Is the interface of the resources used in distance learning convenient for you?	3.1	+0.2	+0.3	+0.2	+0.3
<b>3.2.</b>	Is communication with the teacher sufficiently established?	2.7	+0.3	+0.6	+0.2	+0.5
<b>3.3.</b>	Is communication with groupmates well established?	3.0	+0.7	+0.7	+0.8	+0.7
<b>3.4.</b>	Are the tools you use for reporting to the teacher convenient?	2.9	+0.2	+0.3	+0.2	+0.3
<b>3.5.</b>	Do you have the opportunity to ask the teacher questions, if they arise?	2.6	+0.1	+0.4	+0.2	+0.4
<b>IV</b>	General attitude					
<b>4.1.</b>	Are you interested in distance learning?	2.9	+0.2	+0.4	+0.3	+0.4
<b>4.2.</b>	Does distance learning evoke your positive emotions?	2.9	+0.1	+0.4	+0.2	+0.4
<b>4.3.</b>	Does distance learning evoke your negative emotions?	2.7	-0.1	-0.5	-0.2	-0.5
<b>4.4.</b>	Do you think that distance education supports your interest in learning?	2.8	+0.1	+0.3	+0.2	+0.3
<b>4.5.</b>	Do you think distance learning is boring and uninteresting?	2.4	-0.1	-0.6	-0.4	-0.6

As Table 1 shows, the students' attitude to the distance learning changed in the course of this study. The positive influence of research methods of learning on the attitude of students of technical majors to this form of education was found. It was also established that the introduction of subjects for studying the peculiarities of research work did not have such a strong impact on the improvement of students' perception of distance learning.

Besides, the answers to the open-ended questions of the questionnaire revealed the difficulties that the students of technical majors face during distance learning. These include the following:

- 1) lack or low-quality feedback;
- 2) lack of previous experience for independent acquisition of new knowledge, therefore low interest in learning;
- 3) lack of practice, working with real devices in laboratories leads to lack of practical skills;
- 4) presentation of educational material in the form of texts does not motivate learning.

The survey of teachers of the sample made it possible to reveal their attitude to distance learning (Figure 1) and the difficulties they faced in preparing and conducting distance learning. As Figure 1 shows, more than a third of all teachers do not consider distance education to be effective.



**Figure 1.** The teachers' attitude to distance education

The underlying reasons include the following:

- 1) lack of the opportunity to see all students as in offline learning. This leads to a misunderstanding of the students' perception of new material and timely correction of its presentation in accordance with the situation;
- 2) students' lack of communication skills in the virtual space creates certain obstacles during conversations, reports, discussions, performances, etc.;
- 3) inability to track the degree of independence in the performance of homework and test assignments;
- 4) difficulties associated with the creation of educational content. A lot of time spent on shooting training videos, especially with technical equipment, on creating digital diagrams, formulas, etc., the need for special technical support, lack of proper digital skills.

Recommendations were developed for the organization of distance learning, which would contribute to the development of research competence of students of technical majors. They include:

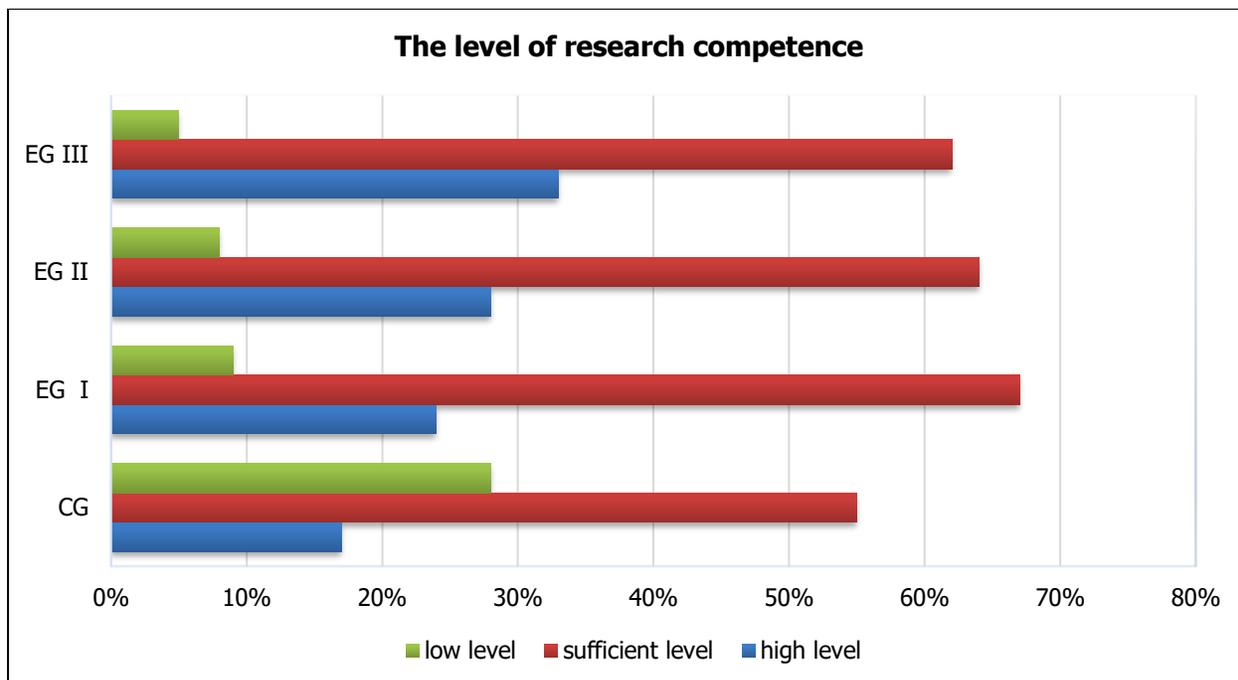
- 1) Introducing students to research activities as early as possible, even in the first years of study at a HEI.
- 2) Implementing a special course that introduces students to the basics of conducting the research and promotes the development of their research competence. As a result of learning the course, students should learn to formulate research objectives, advance hypotheses, select research methods, and conduct research. At the same time, it is necessary to teach students to use basic digital resources that

allow to speed up the process of searching and processing large amounts of information, for example, web systems for monitoring scientific publications, use and dissemination of research results. The students should acquire the skills of searching in bibliographic databases, information and analytical services of open digital archives, use scientometric platforms, etc. It is important for students to learn to analyse and interpret the obtained research results, to be able to present and disseminate them.

- 3) Develop the research competence during the study of other subjects by using the research method of learning.
- 4) Texts of lectures should not be presented as a monolith, but should be divided into small parts. Each part shall be followed by students' knowledge check with the use of several questions. The student would be able to proceed to the next part of the lecture only by giving the correct answer to the questions. The material should be presented in the form of a dialogue with an imaginary interlocutor (asking questions and giving answers to them). The truth should not be communicated to the students immediately, they must come to it through research or experiment.
- 5) Applying active learning methods (problematic, project, case study, flipped classroom). The time allocated for an online meeting with students should not be spent on the teacher voicing the lecture, which the students can read independently even before the meeting based on the materials provided by the teacher, or watch the video lectures recorded by the teacher or selected from the Internet. It should be spent on discussing the questions that students had while viewing or reading educational material. It is also appropriate to spend the meeting time on completing practical assignments and training skills. It is better to use extracurricular time to complete problematic and creative assignments.
- 6) The resolution of the problematic issue formulated by the teacher should be the result of research conducted by students. At the same time, it is worth dividing complex problems into component parts and distributing them among small groups of students.
- 7) The assignments should be formulated in such a way that their completion requires research, they should not be obvious or predictable. Giving freedom to students when choosing assignments.
- 8) The research objectives and projects can be jointly fulfilled and implemented with the help of Wiki. Research results can also be presented in the form of posters. This helps students to develop brevity in expressing their thoughts, to learn to distinguish the main thing without being distracted by the secondary information.

During the research, the students of the experimental group took an active part in research and development in the research centers operating at their HEIs. Students also participated in competitions of students' studies. The necessary technical equipment was used for building research competence, which can be used in the fulfilment of the research objectives set by the teacher for offline learning. In the distance learning setting, the teachers used the equipment to formulate research objectives that students had to fulfil independently, applying all their previous knowledge and available resources.

Determining the level of research competence of students of technical majors during distance learning showed positive results in all three experimental groups (Figure 2). However, the highest effect was achieved in EG III.



**Figure 2.** The effectiveness of the use of digital technologies according to the answers of future PhDs and teachers

Table 2 provides the results of the evaluation of students' self-efficacy in research activities.

**Table 2.**

*Results of the evaluation of students' research self-efficacy*

	Pre-test	Post-test (score difference)			
	All groups	CG	EG I.	EG II.	EG III.
<b>Confidence in one's ability to complete work on the project.</b>	57	+3	+5	+7	+9
<b>Compliance with ethical standards of research.</b>	45	+2	+7	+9	+10
<b>Generating research ideas.</b>	36	+4	+10	+11	+12
<b>Interaction in the research community</b>	59	+7	+12	+8	+13
<b>Discussing research ideas with colleagues</b>	61	+9	+12	+10	+14
<b>Asking senior colleagues for help with ideas</b>	78	-2	-4	+3	+5
<b>Self-limitation in the search for information</b>	44	+3	+7	+6	+8
<b>Conducting a literature search</b>	67	+5	+11	+9	+14
<b>Self-limitation in the generation of ideas</b>	52	+3	+4	+6	+7
<b>Generalization of the literature</b>	60	+6	+13	+8	+15
<b>Outlining further research directions based on literature review</b>	49	+3	+5	+4	+8
<b>Justification of research ideas</b>	56	+4	+7	+7	+8
<b>Determining research objectives</b>	51	+3	+6	+7	+9
<b>Ability to present research ideas in writing</b>	48	+4	+5	+6	+8
<b>Editing and shortening the text</b>	62	+7	+14	+15	+19

<b>Presentation of the research idea</b>	69	+6	+13	+6	+16
<b>Using criticism of a research idea in order to improve it</b>	57	+3	+8	+9	+12
<b>Choice of research design</b>	36	+2	+6	+8	+10
<b>Demonstrating flexibility in the development of alternative ways of research</b>	38	+2	+5	+6	+12
<b>Selection of the necessary methods of analysis of the obtained results</b>	53	+3	+7	+9	+13
<b>Obtaining special permits for research</b>	54	+7	+10	+12	+16
<b>Selection of necessary equipment for research</b>	49	+4	+12	+13	+15
<b>Data collection</b>	63	+5	+14	+14	+17
<b>Performance of experimental measurements</b>	68	+6	+11	+12	+14
<b>Verification of the reliability of the obtained data</b>	56	+3	+5	+6	+7
<b>Careful assessment of every detail of data collection</b>	51	+2	+5	+6	+7
<b>Arranging the obtained data for analysis</b>	64	+3	+7	+9	+11
<b>Using ICT for analysis of obtained data</b>	72	+6	+12	+13	+17
<b>Interpretation of the obtained data</b>	58	+3	+14	+12	+16
<b>Generalization of the results of the conducted research</b>	51	+4	+9	+8	+15
<b>Identifying research limitations</b>	63	+3	+8	+7	+9
<b>Determining the place and role of research findings for further research</b>	57	+3	+9	+7	+10

On average, the pre-test showed approximately the same results in all three experimental and control groups. Table 2 presents the difference in students' self-assessment of research competence at the beginning and at the end of the research.

It was established that the weighted sum of squared deviations from the mean is caused by the heterogeneity of the sample, associated with conducting research in different educational institutions and different groups. The null hypothesis turned out to be invalid, because the root mean square deviations for the same questionnaire question in different HEIs of the sample were different, and the intergroup variance, which describes the fluctuations of these groups, and the intragroup variance, which describes the fluctuations caused by random factors not taken into account, were also equal. At the same time, it was found using the Pearson correlation coefficient that  $\chi_1^2$  values obtained for the experimental groups are greater than  $\chi_2^2$  values calculated for the control group. Using the Cohen's kappa coefficient, it was established that the greatest effect was in the Experimental Group III. That is, the development of research competence among students of technical majors is best facilitated by distance learning, the combination of the research method in the study of technical subjects and the introduction of a special course on the basics of conducting research.

## 5. Discussion

The experience gained during the 2020 pandemic irrevocably changed the education system (Suriagiri et al., 2022). Teachers have developed additional video materials, manuals, test assignments, quizzes, with the aim of encouraging students to engage in active learning activities, stimulating students' independent learning and developing various skills (Wakes & Dunn, 2023). This experience resulted in the emergence of a culture of distance collaboration, cooperation and coordination (Stracke et al., 2022). Although there are still differences in the attitude of teachers to distance education. For example, primary school teachers have the most positive attitude towards distance learning, compared to university teachers (Dashtestani, 2020). However, most teachers, having learnt new teaching methods, will never return to traditional

education (Stracke et al., 2022). Blended learning has become the most optimal form of education, which includes offline and online learning, as well as synchronous and asynchronous. Therefore, it remains important to improve distance education, especially for practice-oriented and research-oriented courses and areas of education. For example, the authors (Li & Wang, 2021) identified a number of shortcomings in the quality of distance teaching in the field of science and engineering, in particular, the need for laboratory practice, which is difficult to provide at a distance. The effectiveness of adaptation to distance education is influenced not only by the support of teachers and classmates, but also by the student's family (Rockinson-Szapkiw & Watson (2020)). The ability to support a family member in studying at a university depends directly on the availability of higher education in the student's parents and relatives.

Surveys of about 5,000 educators showed that almost 29% of respondents consider the use of distance learning to be undeniably promising, the same number have certain doubts about the possibilities of using distance learning for technical majors. About 8% of teachers are convinced of the inappropriateness of using distance learning in technical education (Petrenko et al., 2020). At the same time, almost 16% of teachers have a negative experience of using distance learning. However, research results showed a reduction in the number of students with low academic performance by more than 11% due to the transition to distance learning (El Refae et al., 2021). This study found that more than a third of teachers have a negative attitude to distance education, considering it unpromising (24%) and absolutely inappropriate (11%) for teaching students of technical majors.

The students themselves consider distance learning to be inappropriately organized, complained about unsatisfactory emotional and academic support from the administration and teachers (Maré & Mutezo, 2021). The study of the level of development of information and research competences among graduate and doctoral students, conducted according to the author's technique (Leshchenko et al., 2021), showed that the majority of respondents had a low (almost 33%) and sufficient (almost 49%) levels of these competences, with a high level of only about 19%. This study found that the introduction of the research method in learning technical subjects and a special course on the research methodology made it possible to achieve a high level of research competence of 16% of students, and reduce the number of students with the low level of this competence by 23%.

The study conducted in the USA (Wishkoski et al., 2022) showed that research activity causes students to feel anxious, for example, when working in a library, lack of interest in this type of activity, inability to find relevant content, negative attitudes, and misconceptions about the research procedure, lack of motivation. However, the introduction of courses on research methods into educational programs contributes to the development of skills necessary in research practice and promotes the development of the self-efficacy of young researchers. Students' confidence in applying research methods in new fields of research increases. Students plan and organize their own research more effectively, have experience in presenting research results, developing recommendations for their use and further research. This study confirmed the increased research self-efficacy of students of technical majors during distance learning. Moreover, a high effect is observed when applying the research method in classes in technical subjects, but it is the highest when combined with a special course of preparation for research and development.

Although there are other results (Scogin et al., 2023), which showed low motivation of students to engage in research activities, despite the implementation of a wide variety of activities provided by the research experience course. Therefore, it is recommended to introduce not only separate courses on the research methodology, but also to integrate the research method when studying other educational subjects in order to build the research competence more effectively.

Preparing students to conduct research, teaching them research methods, as identified in (Abbott, 2019), encourages and inspires them to conduct their own research. A total of 63% of students became more confident in conducting research, 85% learned to plan their work efficiently, 54% became better aware of

risks. This study showed that the proposed ways of developing research competence contributed to the growth of students' confidence in discussing research ideas with colleagues, conducting a literature search, editing and shortening the text, and presenting research.

## 6. Conclusions

Technical education turned out to be the most vulnerable to extreme learning conditions because of the difficulty of developing practical skills and abilities at a distance from laboratories and equipment. The importance developing students' competencies necessary for future professional activity, including research competence, makes educational institutions to find ways of building those competencies. Three ways of building the research competence of students of technical majors during distance learning were verified. It was found that among the three proposed ways, the most effective is the combination of the use of the research method during the study of technical subjects and the introduction of a course on the basics of research. The results of the study can be used in the planning and implementation of distance learning in HEIs in order to build competencies necessary for lifelong learning. Further research should be focused on finding new methods of building research competence and improving students' performance.

This study does not cover the impact of the recommendations on building the research competence on the level of student's performance, it was reduced to measuring the level of research competence and research self-efficacy.

The results of this study are recommended for researchers and teachers who are engaged in the search and implementation of new effective methods of distance learning.

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# Effectiveness of generative learning strategies in independent study of english using mobile technologies

## Eficacia de las estrategias de aprendizaje generativo en el estudio independiente del inglés utilizando tecnologías móviles

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### Abstract

The aim of the research is to determine and evaluate the practical impact of the educational concept of generative learning in independent study of the English language with the development of the most appropriate and effective educational system. The following methods were used to achieve the aim of the research: EF SET testing, correlation analysis, statistical and mathematical forecast models. Empirical component of the research and the analytical interpretation of the results indicate a positive effect in the application of generative methods of learning English. It is quantified by an improved dynamics of learning English for students of the experimental group (relative to the indicators of the control group) — 2.915 times. Performance for the final test for the group which learned using typical methods was 3.06%. The relevant indicators for the group that received focal knowledge by generative learning methods were 8.92%. The results of the study indicate the practical impact of the concept of generative learning on the effectiveness of learning English, and the significant potential for other applications. It is advisable to conduct repeated empirical studies in other educational institutions and other educational subjects taking into account the established facts. The results of those studies will be the ground for developing a generalized educational standard, which will be proposed by the Ministry of Education and Culture of Ukraine for integration and implementation into approved teaching methods.

**Key Words:** Concept, system, generative learning, strategy, methods, efficiency.

## Resumen

El objetivo de la investigación es determinar y evaluar el impacto práctico del concepto educativo de aprendizaje generativo en el estudio independiente del idioma inglés con el desarrollo del sistema educativo más adecuado y eficaz. Se utilizaron los siguientes métodos para lograr el objetivo de la investigación: pruebas EF SET, análisis de correlación, modelos estadísticos y matemáticos de pronóstico. El componente empírico de la investigación y la interpretación analítica de los resultados indican un efecto positivo en la aplicación de métodos generativos de aprendizaje del inglés. Se cuantifica por una dinámica mejorada de aprendizaje de inglés para los estudiantes del grupo experimental (en relación con los indicadores del grupo de control) — 2.915 veces. El rendimiento de la prueba final para el grupo que aprendió utilizando métodos típicos fue del 3,06 %. Los indicadores relevantes para el grupo que recibió conocimientos focales por métodos generativos de aprendizaje fueron 8,92%. Los resultados del estudio indican el impacto práctico del concepto de aprendizaje generativo en la efectividad del aprendizaje del inglés y el potencial significativo para otras aplicaciones. Es recomendable realizar estudios empíricos repetidos en otras instituciones educativas y otros temas educativos teniendo en cuenta los hechos establecidos. Los resultados de esos estudios serán la base para desarrollar un estándar educativo generalizado, que será propuesto por el Ministerio de Educación y Cultura de Ucrania para su integración e implementación en métodos de enseñanza aprobados.

**Palabras clave:** Concepto, sistema, aprendizaje generativo, estrategia, métodos, eficiencia.

## 1. Introduction

### Relevance

According to the estimates by the *Statista Research Department* (2023), the English language occupied a leading position in the global social and information space in 2022. The reason is that about 1.5 billion people communicate in English as their mother tongue or as a second language. This is 36.4% more than Chinese (Mandarin) language (1.1 billion users), and 2.5 times more than Hindi (602.2 million users). The global spread of the English language is impressive: as Yadav (2023) noted, English has the third largest number of native speakers who use it in everyday life (373.0 million native speakers, after Chinese (Mandarin) – 930 million native speakers and Spanish languages - 475 million native speakers (Ethnologue, 2023a)). This is an extremely high indicator among the 7,151 languages that exist in the modern world (Ethnologue, 2023b). English has become the most widespread in atypical linguistic environments in such countries as India (265 million users), Pakistan (104 million users), Nigeria (60 million users) (Yadav, 2023; Ethnologue, 2023a) etc.

Such spread of the English language is the result of people's striving for the use of a universal means of communication. Only 23 languages among such a large number of existing languages (as mentioned above) are used by the majority of the world's population (Ethnologue, 2023b). Only 4% of communication takes place between native speakers, while 96% of communication takes place with the involvement of at least one non-native speaker (Yadav, 2023). Therefore, the English language is de facto a means of international communication, which is confirmed by the following facts:

- according to the monitoring group W3Techs (2023), the English-language sector of the Internet amounted to 57.7% in 2022, almost 11 times exceeding the closest competitor (5.3% - the Russian-language sector). This indicator maintains a stable median value at the level of 55% in the dynamics of the last decade;
- the majority of scientists, engineers and researchers use the English language: more than 50% of research, scientific and technical works are published in English (Shi-Xu & Pardo, 2018), more than 80% of academic journals are published in English only (Adroit Market Research, 2023);

- Gration (2023) notes that English has the status of the state language in 55 countries (28.5% of the total number). If we take into account the spread of the English language in business and everyday life in individual countries, the number of countries where English has a formal status will be 75 — 39% of all countries of the world. Moreover, there are currently local territories that give the English language official state status (Saba and Sint Eustatius (Netherlands), San Andres and Providencia (Colombia), Hong Kong (China), etc.).

According to estimates by Mykhalevych (2021), by 2050, English will remain the third in terms of the number of native speakers (after Chinese (Mandarin) and Spanish). It will show the largest growth of 44.7%, when the number of people who naturally use increases to 534, 3 million users. However, as *ISA* (2023) noted, the share of the English-language sector of the world economic sphere will continue to occupy a leading position, and will increase to 34% of the world volume by 2050 (3 times greater influence on the world economy than that of the nearest competitor — the Mandarin (Chinese) language (11%)). This will allow the English language to occupy a leading position and increase the number of users to 1.65 - 2.0 million people (Gration, 2023). So, we state that the English language is a universally recognized communicative tool for access to the leading international multi-area platforms. Therefore, research and development of effective methods of learning this language is not only relevant, but also urgent.

### Unexplored Issues

Despite the numerous methods developed for learning English, there is currently no generalized teaching method in the world community that would be considered the most effective and would give fast results. Gration (2023) notes that the English language is compulsory for learning under the approved school programmes in 138 countries. Teaching of the studied language begins for children on average from 6 to 12 years old. In addition to the spread of mandatory English language learning for children, there is also a growing interest in learning this communicative tool among the adult population. It provides wider opportunities, which is confirmed by a significant number of requests on Internet search engines regarding English language learning, while users from the United Arab Emirates, Malaysia, Sweden, etc. show the greatest interest (Gration, 2023).

The scale of the influence of the English language on the educational sector can be estimated by several important factors:

- According to estimates by HolonIQ (2023), the international education is confirmed by certificates of the appropriate level of accreditation. These certificates are provided upon defence of attestation work in English. The current volume of the specified educational services is estimated at 10 - 20 million students annually, By 2030, this indicator will increase to 1 billion university graduates, which has direct economic consequences. The reason is that the field of international education currently attracts investment of \$196 billion, and will amount to \$433 billion by 2030 (with the projected average annual growth rate of 7.4%). So, it is necessary to have an appropriate level of English language proficiency in order to obtain a professional qualification of an internationally recognized accreditation level;
- Adroit Market Research (2023) estimates the current volume of investment in learning of the English language at \$12 billion, and predict a further increase of the studied educational sector to \$69.62 billion in 2029 (with a projected average annual growth rate of 9.5%). The researchers note the following practical methods most often used to learn English: classic method based on thorough manuals, face-to-face course in the form of group training and online learning. According to Adroit Market Research (2023), the development of digital means of learning English language is the key economic driver of the development of the field of English language learning. However, one of the restraining factors mentioned in this marketing research is the lack of a unitary approach and effective methods of acquiring relevant skills in mastering the English language;

- According to the analysis of the results of the Verified Market Research (2023a), we come to the conclusion that the financial consequences of the growing the influence of the English language on educational and professional activities will be manifested in the increasing investment in English language knowledge tests. They are used to confirm one's qualification and accreditation level. The investment increased from the current \$1.9 billion to \$6.2 billion by 2030 (with the projected average annual growth rate of 14.76%). Verified Market Research (VMR, 2023a) distinguishes *The English Language Proficiency Test (ELPT)* and *The Test of English as a Foreign Language (TOEFL)* among the test leaders. But the development of digital tools creates qualitatively new approaches and changes the basic principles of the field of accreditation. This is a direct consequence of the increasing number of specialized network educational platforms (VMR, 2023b) and the general digitalization of English language learning. Investment in the digital services for learning English will increase from the current \$4.13 billion to \$12.82 billion in 2028 (with a projected average annual growth rate of 15.32%) (VMR, 2023c).

So, we state that currently the field of learning English as a tool for access to multi-sphere international platforms attracts investment in educational and accreditation processes. The development of digital means of the Internet was a significant impetus for that. It offers a wide range of variations of educational programmes and methods, and requires careful research and establishment of the most effective and appropriate ones for implementation as a generalized effective methodology.

## Aim

The aim of the study is to empirically test the hypothesis about the potential effectiveness of the application of generative teaching methods in increasing the level of English language proficiency with the appropriate use of accredited testing and verification methods.

## Objectives/Questions

The aim involves fulfilment of the following research objectives:

- make a sample among the focus group of students by means of preliminary pre-experimental testing for the level of English language proficiency;
- form two groups (experimental and control) with an appropriate number of participants in the educational process based on the median selection principles to ensure a wider sample and establish a confidence range of qualitative and evaluation indicators);
- develop the organizational and technological sequence of conducting an experiment with the development of an appropriate scheme for learning English using generative learning strategies for students of the experimental group;
- based on the results of a repeated post-experimental study, draw analytical conclusions on the influence of generative learning strategies on the assimilation of educational material in English language courses;
- based on the results of empirical research and analytical summarization of the data of the scientometric framework, develop recommendations for the implementation of generative learning as an effective and efficient method of teaching English, also for students of Ukrainian universities.

## 2. Literature review

Multilocal information search helps to select relevant academic publications and specialized studies on the application of generative methods and strategies in the educational field.

Hulukati et al., (2023) proved the effectiveness of the generative learning model (*The Generative Learning Model*) when integrating this method into an educational programme for studying mathematics, which was empirically confirmed by the results of a random sample of 171 surveyed students. It was also established that the generative learning model correlates with the improvement of mathematical skills and does not correlate with the previous experience of the respondents in acquiring mathematical knowledge. Therefore, the application of generative learning is positively evaluated for implementation in training programmes for target groups with different performance levels in obtaining mathematical education.

Roelle, Froese et al., (2022) established an appropriate sequence of introducing the stages of generative learning, which improves the memorization of the material and reduces cognitive load, on the basis of empirical studies conducted for 158 university students. The results of the study gave grounds to advise the introduction of the *Retrieval-Before-Generation* phase, which has an impact on the effectiveness of generative learning.

Another study by Roelle, Schweppe et al., (2022) confirms the effectiveness of the integrated application of generative learning and search practice in educational activities. It follows from the conclusion that, instead of consolidating mental representations, generative activity should have the construction of coherent mental representations as its main function. So, it was established that engaging students in the practice of searching for learned information contributes to the consolidation of students' mental representations and, therefore, long-term memorization.

Buchner (2022) studies the impact of generative learning on the motivational and emotional factors of the perception of new technological means — *the augmented reality* — in the education of primary schoolers. The empirical research for 56 schoolers established the fact of increased scepticism towards the use of modern mobile tools in the educational process and augmented reality technologies by representatives of the experimental group. For this purpose, a correlative comparison of experimental (application of generative teaching methods, namely, self-explanation and self-testing) and AR mobile educational tools) and the control group (application of AR technologies only) was used. However, the general perception of the use of AR technologies in education was perceived positively by both representatives of the control group and pupils with integration of generative strategies into the educational process.

Mohammed (2022) experimentally proved the correlative effect of generative teaching methods on the expressive performance of fourth-grade students in natural sciences on the basis of control (32 students) and experimental (33 students) groups. According to the results of the research, it was established that there is an educational need for fourth-grade students to use modern teaching methods. It was also found that the generative learning strategy works to develop higher mental levels of thinking and the right way of thinking.

Anshari and Akmam (2022) emphasizes the need for the continuous development of the competences of the teaching staff of the general education system with the adaptation of relevant qualifications to the modern requirements for the organization of the learning process with the involvement of modern digital tools and the Internet based on generative educational strategies. In particular, the study demonstrates the positive impact of training of the teaching staff on the possibility of involving generative teaching methods in the educational process using digital means and multimedia synchronous presentation content. This contributes to increasing the effectiveness of the generative education system.

In view of the focus of this study, Bardone et al., (2022) objectively indicated the difficulties of implementing the educational process of learning English for the relevant teaching staff caused by the impact of the global pandemic restrictions. Three groups of high school students were empirically studied in interaction with an English teacher in the conditions of limited physical attendance of educational institutions and intensification of the online educational process. The results of the study revealed the problem of uncertain

expectations for the effectiveness of both the teacher and the students — the uncertainty led to the formation of "genuine creative" tension. So, the use of generative learning methods, in particular, self-education, allowed two parties of the learning process to focus on the immediate educational task, reducing the focus on expectations of results and other uncertainties.

Osman and Shahrani (2022) conducted an experiment with 48 students divided into 2 groups: experimental and control. He empirically proved the effectiveness of the generative model of learning synonyms and antonyms in the English school course. The results indicate a statistically significant difference between the average scores of members of the experimental and control groups for the post-test in the levels of memorization, understanding and application in favour of the experimental group. The latter was trained according to the generative model throughout the experiment.

Wang (2022) proposed a new method of summative assessment of the level of English based on the use of modern digital solutions and cloud services. This, in turn, involves the use of generative learning of the English language. It was proved that a diversified assessment process can not only ensure that students complete their learning assignments efficiently and quickly. It can ensure that students are evaluated objectively and rightly compared to the typical methods of final assessment of the level of knowledge at the end of an English language course.

Seo (2022) empirically proved the impact of generative learning systems in combination with the appropriate design of multimedia content involved in the educational process on the quality of learning English. The results were obtained from the surveys of 232 college students who participated in an online English language training. It is proposed to create the educational content with the possibility of its generative regulation for students studying according to the generative strategy for learning English.

Oktaviani et al., (2021) proves the effectiveness of applying generative methods of teaching English for students of a special educational institution using modern digital tools and methods. This illustrates the potential possibility of combining a generative strategy for learning English with modern systems of multimedia presentation of educational material.

Hao and Othman (2021) proves the effectiveness of automating the *Second Language Acquisition (SLA)* by integrating generative learning models updated through modern digital means that form adaptive and appropriate multimedia educational content.

Wang (2021) proves the effectiveness of using a generative learning model in online English learning. In this model, a student is not a passive recipient, but an active participant in the learning process, who builds a meaningful understanding of information in the environment. That is, the generative learning model in the concept of "attention, motivation, experience of prior knowledge and generation", and also the concept of "attention" enable obtaining comparable results in learning English.

The following terminological and taxonomic basis was established based on the results of the multilocal information search.

A generative learning strategy is a system of learning new information arrays by identifying important aspects, vectors and focuses, recombining new data and their correlative integration into an already existing system of personal knowledge. In other words, new knowledge is assimilated with the help of pre-arranged information that make up the knowledge base of each individual student involved in the educational process.

There are eight generative strategies, which have separate limitations and features of application, which include: summarizing, mapping, drawing, imagining, self-testing, self-explaining, teaching, enacting – Table 1.

**Table 1.**  
*Characteristics of typical generative learning strategies*

The name of the generative strategy	Characteristics and features of application	Application limitations
1	2	3
<b>Summarizing</b>	A training system that involves the application of the technique of finding the main aspects of the studied data set, logical-structural recombination of information flows and correlative matching of new information with already arranged knowledge	It is appropriate to use it for the study of spatially arranged and relatively uncomplicated information arrays. A more effective scheme of implementation is learning with an integrated practice model with feedback
<b>Mapping</b>	A learning system that involves mastering new information arrays by interpreting the main aspects in the form of conceptual maps, knowledge maps, graphic organizers, etc. The identified main aspects of the studied information flows, which are subject to the mapping interpretation procedure, must be consistent with the previously acquired knowledge	Information mapping is a rather time-consuming process and requires significant preliminary preparation. Therefore, this technique must be used with appropriate motivation to study new information in this way
<b>Drawing</b>	The information to be learnt are interpreted graphically with the creation of appropriate graphic images that reflect the main aspects of the studied information. The identified focuses and aspects of the studied information flows should be consistent with the previously arranged knowledge, taking into account the context of the graphic display of the recombined information.	The effectiveness of this technique depends on the clarity of the idea of the studied information and successful graphic interpretation. The appropriate organization of this strategy involves a preparatory period, when students are provided with detailed instructions, content that can be partially used, and relevant motivational trainings that improve the quality and adaptability of this educational technique
<b>Imagining</b>	New information is learnt through the mediation of adaptive imagery, where the mental images created by learners represent the focal aspects of new information streams that are consistent with previously acquired knowledge	It is appropriate to apply to students who have a significant arranged knowledge system. Therefore, it is necessary to carry out pre-testing in order to determine the initial level of arranged knowledge of the target group for the introduction of this method,
<b>Self-testing</b>	A search-based learning system, which provides for the determination of the most relevant information, which is further systematized and coordinated with previously acquired knowledge. Search activity under this learning strategy simulates the final test	Self-testing is advisable before implementation after the first familiarization with the studied information, and requires frequent and repeated application
<b>Self-explaining</b>	A system of education, in which students carry out its systematization and coordination with	The methodology cannot be applied all the time and requires preliminary

	previously acquired knowledge, while applying their own methods of understanding and recombination of the studied information flows from the beginning of the process of assimilation of new information	preparation with the definition of corrective and reference points in the development and arrangement of new information
<b>Teaching</b>	Under this strategy, students are involved as teaching staff to teach other students. In this case, the training is focused on independent aspecting and structuring of new information by students- "teachers", and their recombination and coordination with previously acquired knowledge for students- "students"	The method is time-consuming, as it requires preparatory actions and control on the part of the teaching staff in order to prevent misinterpretation of the educational material
<b>Enacting</b>	A learning system that involves the assimilation of new educational material using active physical actions (manipulation of studied objects, use of informative and communicative gestures, etc.).	Active interpretations must be consistent with previously acquired knowledge. The application of the methodology requires prior instruction regarding the recognized spectrum of possible actions and further control by the teaching staff regarding the correctness of the activity when learning new educational material.

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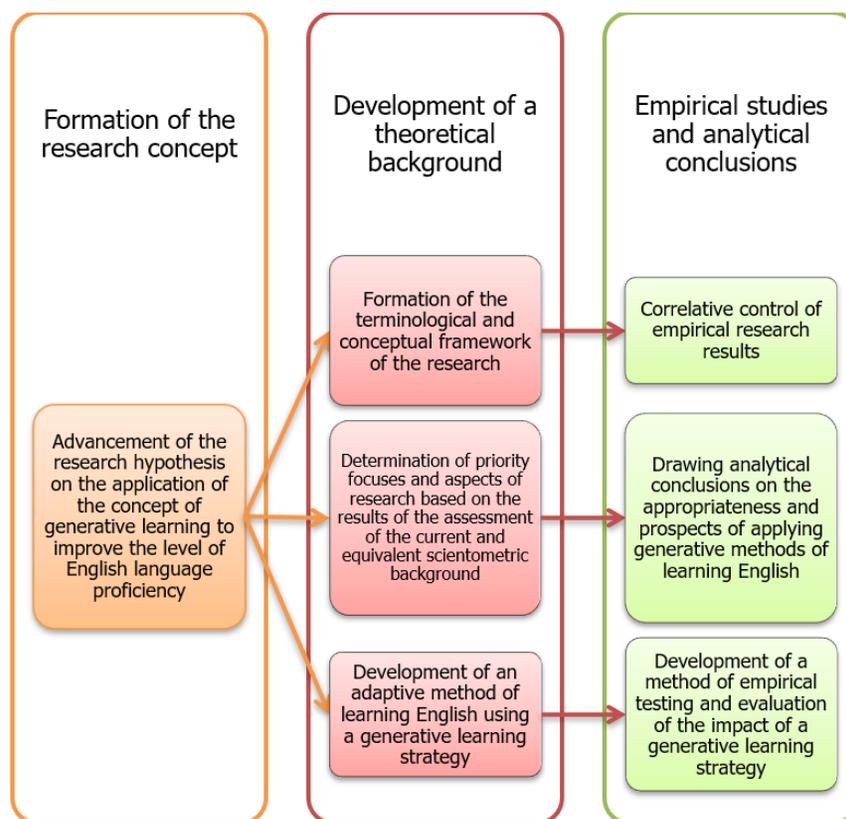
According to the information in Table 1, we state a generalized terminological-taxometric basis: generative learning strategies are educational systems that provide for the active, personalized participation of students in the educational process using established methods. The prerequisite here is the further coordination of new information arrays with previously acquired knowledge.

The results of the literature review give grounds to conclude that the generative learning strategy is quite effective in learning English, which, in combination with modern digital tools and appropriately organized multimedia content, will allow students to significantly improve their English language proficiency.

### 3. Methods

#### Research design

The research involved a search from the selected research vector in several logical stages (Figure 1):



**Figure 1.** Algorithmized sequence of research

The algorithmic sequence of research is as follows:

- development of a generative method of learning English for students using individual forms of education with the use of appropriate digital means, the Internet, and specialized multimedia content;
- empirical studies: testing of the level of English language proficiency among university students, which was conducted before and after the experimental stage of the study. The students were divided into two target groups in order to assess the impact of the developed methodology of the generative strategy of learning English. The control group consisted of 76 people, who were trained using a common method. An experimental group consisted of 76 people, who studied using the generative educational model;
- analytical research: analysis of the results of the empirical stage of the research, followed by drawing conclusions and making propositions on the potential integration of generative methods of learning English for university students.

The structured stages of the research (Figure 1) will ensure the purity, directness and control of the obtained research data.

### Sampling

The sample was conducted among the students of T.H. Shevchenko National University “Chernihiv Colehium” at the Department of Languages and Methods of Their Teaching, the students of Academy of the State Penitentiary Service at the Department of Foreign Languages, the students of Borys Grinchenko

Kyiv University at the Department of Germanic Philology of the Faculty of Romance and Germanic Philology, the students of Chernihiv Polytechnic National University at the Foreign Philology Department, and the students of Alfred Nobel University at the European and Oriental Languages and Translation Department. The first-year students were selected. The aim was to create an indirect research background based on the results of a previous independent assessment according to the Common European Framework of Reference for Languages (CEFR) (Council of Europe, 2023) using the corresponding EF SET (2023) certified platform. Students with an educational level of English proficiency A2 Elementary according to CEFR (Council of Europe, 2023), determined on the basis of the EF SET (2023) in the range of 31-40 points, were selected for the target groups. The corresponding testing method is described in the publications of De Angelis (2023), Savski (2023), Shatz et al., (2023) and others.

The students who passed the criterion selection (based on the results of the *EF SET* (2023) pre-test) in order to obtain an indirect assessment of the influence of generative learning models on the level of English language proficiency with the achievement of an acceptable frequency of empirical searches, were divided into two groups:

- a control group consisting of 76 people, who studied according to the educational programme approved by the university and makes the initial reference values for correlative and comparative analysis;
- an experimental group consisting of 76 people, who studied using the methods of generative learning of the English language according to an individual schedule using mobile technologies and cloud services.

The proposed English course is built in the form of a mobile application that regularly provides information to each student of the experimental group in compliance with the approved training programme. The information is provided according to an individual schedule for the perception of new material with the integration of relevant methodological concepts of generative learning — summarizing, self-testing, self-explaining. These strategies were described above in Table 1).

According to the indicator of qualification correspondence to the students' level, the following modern software tools that allow learning English using generative methods are distinguished – Table 2.

**Table 2.**  
*A selection of software and digital tools that can be used in learning English using generative strategies*

<b>Application name</b>	<b>Brief description</b>	<b>Link</b>
<b>1</b>	<b>2</b>	<b>3</b>
<b><i>Rosetta Stone</i></b>	An application (and online platform) that uses a generative approach to learning English using images, sounds and texts to enhance learning	<i>rosettastone.com</i>
<b><i>English Central</i></b>	An application (and online platform) that offers students video lessons, tests and exercises for grammar, vocabulary and pronunciation according to the scheme of generative learning	<i>englishcentral.com</i>
<b><i>Duolingo</i></b>	An application (and online platform) that uses a generative approach to learning English. It offers users exercises to build phrases and sentences with basic words and phrases	<i>duolingo.com</i>
<b><i>Memrise</i></b>	An application (and online platform) that uses a generative approach to learn new words and phrases in English using pictures, sounds and texts	<i>memrise.com</i>
<b><i>Babbel</i></b>	An application (and online platform) that uses a generative strategy for learning English. <i>Babbel</i> offers users a series of exercises and games to learn new words and grammar	<i>babbel.com</i>

Among the considered software and digital tools (Table 2), *English Central* is the most adequate to the set goal of generative learning of the English language. The control of the educational process according to the relevant indicators of the dynamics of knowledge of the English language provided by using the selected software and digital tool was carried out by the teaching staff involved in the experiment. The software and digital tools were adapted accordingly: a separate system of accounts with data transfer to one server was created.

The experiment, which was conducted during one academic semester, was followed by re-testing. All 152 participants with a mark of the control or experimental group were tested at the EF SET (2023) service. Based on the re-testing results, an analytical conclusion was made regarding the appropriateness of implementing generative methods in learning foreign languages.

#### 4. Methods

The following methods were used in this study:

- development of a criteria-based model for the selection of potential participants in empirical tests of generative strategies for learning English;
- search of the target audience according to the criteria-based model with the formation of a wide sample among the students of a particular specialization according to the initial pre-experimental EF SET testing;
- selection of the median group of students based on the results of EF SET (2023) testing: the focus audience should consist of students whose English proficiency level is not lower than A2 Elementary according to CEFR (Council of Europe, 2023) (Table 3);
- ensuring the purity of the experiment by dividing the students who entered the experimental audience into two groups: the control group, for which the educational process was carried out in a typical approved way, and the experimental group, for which it was proposed to learn English using generative strategies;
- an empirical study of the impact of generative strategies for learning English through a correlative comparison of the initial and final testing of target groups of students according to CEFR (Council of Europe, 2023) using the EF SET (2023) service. The obtained results are compared with other recognized grading scales of English language proficiency: TOEFL iBT (2023), IELTS, TOEIC (R&L) Total Score (2023), Cambridge English Scale (2023), and Global Scale of English (2023) – Table 3;
- the results of repeated testing using EF SET (2023) are subject to statistical analysis with the identification of logical dependencies and an analytical conclusion on the potential integration of the generative learning method into educational programmes of higher educational institutions.

**Table 3.**  
*Relevance of the evaluation method*

CEFR (Council of Europe, 2023)	EF SET (2023)	TOEFL iBT (2023)	IELTS (2023)	TOEIC (R&L) Total Score (2023)	Cambridge English Scale (2023)	Global Scale of English (2023)
< A1	1 - 10	n/a	n/a	n/a	80 - 99	n/a
<b>A1 Beginner</b>	11 - 30	n/a	n/a	120 - 220	100 - 119	22 - 29
<b>A2 Elementary</b>	31 - 40	n/a	n/a	225 - 545	120 - 139	30 - 42
<b>B1 Intermediate</b>	41 - 50	42 - 71	4.0 - 5.0	550 - 780	140 - 159	43 - 58
<b>B2 Upper Intermediate</b>	51 - 60	72 - 94	5.5 - 6.0	785 - 940	160 - 179	59 - 75
<b>C1 Advanced</b>	61 - 70	95 - 120	6.5 - 7.5	945 - 990	180 - 199	76 - 84
<b>C2 Proficient</b>	71 - 100	n/a	8.0 - 9.0	n/a	200 - 230	85 - 90

Source: EF SET (2023)

The main goal of the experimental course is the active participation of students in the coordination of new information with already existing and personalized knowledge experience.

Control of the process was carried out on the server of the experimental mobile application based on the relevant statistics regarding the passage of control points of individual training schedules.

The validity of the advanced hypothesis on the possibility and effectiveness of applying generative methods for learning English is finally confirmed by the results of empirical research.

So, an appropriate methodological framework was formed for conducting a study with the aim of refuting or confirming the hypothesis that generative learning strategies with the involvement of modern digital tools and appropriate multimedia content will be effective in obtaining appropriate levels in the English language knowledge.

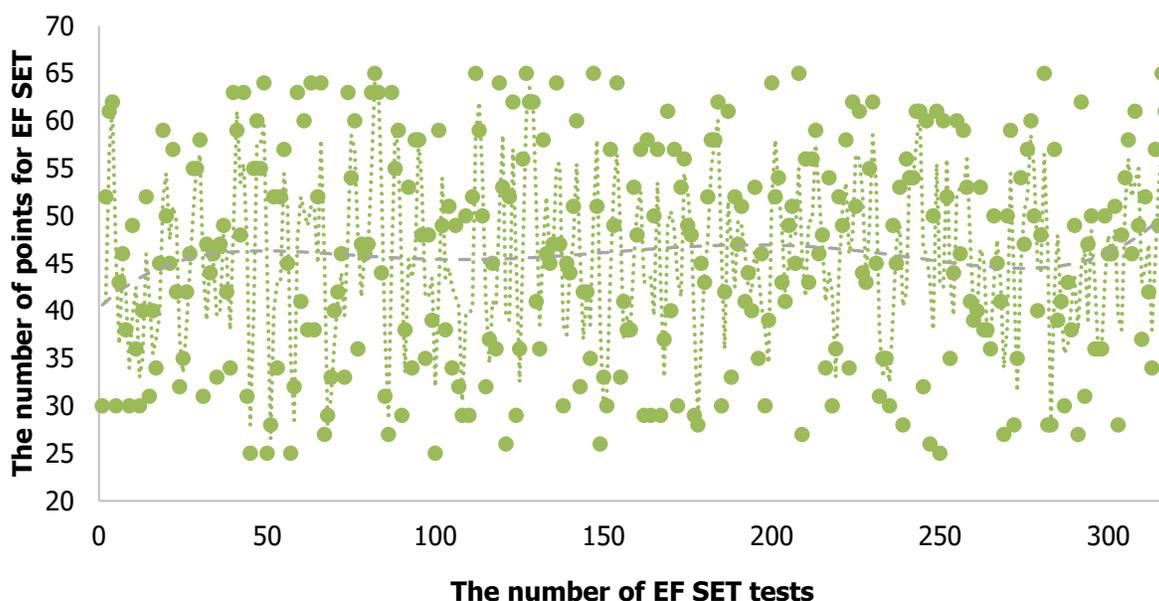
## 5. Results

The criteria-based model for the selection of potential candidates for participation in the experiment to establish the influence of generative methods on the effectiveness of learning English course material is based on obtaining the median value of the qualification level according to the CEFR scale (Table 3) – Figure 2.



**Figure 2.** Criteria-based model for the selection of potential candidates for participation in the experiment on studying the influence of generative learning methods on the improvement of English language skills: the size of the sectors is equivalent to the expected number of students with the appropriate level of English; the focus audience that falls under the selection criteria of A2 Elementary is indicated by an element that is discoloured relative to the others.

The results of preliminary testing made it possible to establish the median value of the selection criterion for admission to participation in the experiment according to the criteria-based model (Figure 2). Pre-experimental *EF SET* testing conducted for 317 students of the selected specialization – Figure 3.



**Figure 3.** Results of *EF SET* testing of the general selection group.

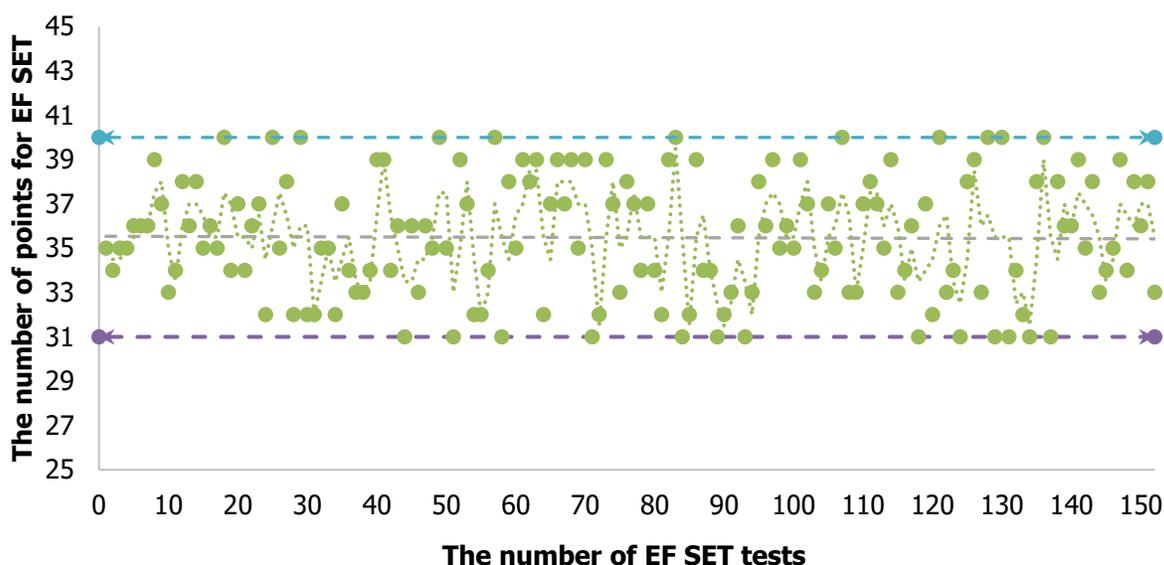
The expected discretization of the general flow of students by the qualification level of English language proficiency (according to the criteria-based model - Figure 2) correlates with the results of the previous *EF SET* testing (Figure 3).

The test results (Figure 3) indicate a fairly wide range of the levels of English proficiency among the students of the focus group. It was necessary to apply polynomial averaging (with degree of 5) – Formula 1 to obtain the overall average value:

$$y = 2 \times 10^{-10}x^5 - 2 \times 10^{-7}x^4 + 5 \times 10^{-5}x^3 - 0.0064x^2 + 0.331x + 40.31; \\ R^2 = 0.0106. \quad (1)$$

The use of a fifth-degree polynomial to approximate the empirical data (Figure 3) was appropriate because of the tolerance of noise or random deviations in the experimental data, which complicate their interpretation and analysis. This method improves forecasting accuracy, reduce data analysis errors, and increase the level of reliability of results. This statistical and mathematical method makes it possible to identify trends and data cyclicity and reduce noise. This enables us to better understand and predict the behaviour of the system under analysis. The use of complex fifth-degree polynomials indicates a fairly wide spread of the obtained results. This requires sufficiently strict filtering methods to find median values and generalizing dependencies formula (1), which will later be able to provide predictive data for similar studied arrays.

S limit number of points— 31 – 40 (Figure 2) — was set in order to achieve the purity of the experiment and the harmonization of the input group. This corresponds to *A2 Elementary* level of English language proficiency according to *CEFR* (Table 3). As a result, 152 students were selected - Figure 4.



**Figure 4.** Limit-harmonized results of EF SET testing of selected students

In this case, linear extrapolation was used to obtain the average value (with an average value of 35.480 points) — Formula 2:

$$y = -0.0008x + 35.538; R^2 = 0,0001. \quad (2)$$

The application of linear extrapolation to establish the median value of the *EF SET* score (Figure 4) confirms the correct application of the criteria-based sampling model among the focus group of students (Figure 2). The formation of the confidence range separated within the *CEFR A2 Elementary* qualification level (Figure 4) proves the purity of the experiment and the absence of statistical noise and random coincidences. It was observed when selecting potential candidates for participation in the experiment, where a more complicated method of polynomial extrapolation with a high-level polynomial (5) was applied (Figure 3).

In other words, the use of the linear extrapolation method for filtering the obtained data set proves the relative homogeneity and averaging of the test results within the score range determined by the criteria-based model. This gives grounds to assert that the students involved in the experiment have equal opportunities to learn English and raise their *CEFR* qualification level.

The formation of the control and experimental groups was followed by the application of adapted generative methods for learning English, which were described in detail in the methodological section of this study.

Quality control and the course of the experimental research was organized with the help of software, digital tools and cloud technologies, which are described in detail in the methodological section of the research.

There were certain expectations from the experiment conducted to establish the impact of generative learning strategies on the effectiveness of assimilation of educational materials for learning English according to the criteria-based model (Figure 2). A slight increase in the qualification level of English language proficiency was expected for the students of the experimental group with a simultaneous increase in this indicator for both groups (including control group). The expectations were formed in accordance with the practical results of the experience of teaching English according to the typical approved programmes and methods. The results of the introduction of generative learning methods established on

the basis of the results of related studies of the selected research vector were also taken into account. A detailed description of each of the selected study is given in the Literature Review section of this study.

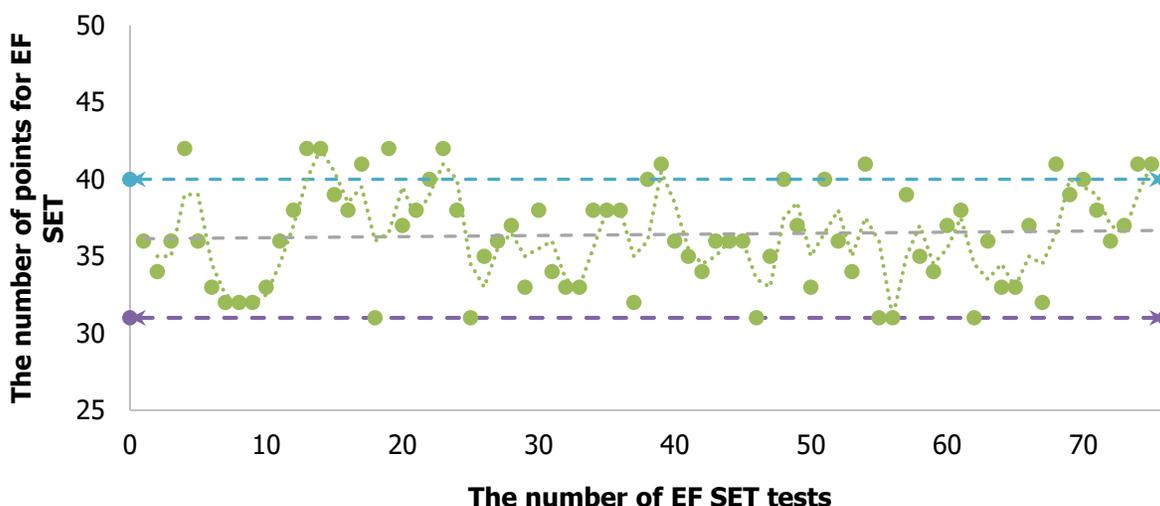
According to the general concept of the study, the impact of generative methods and learning strategies (Table 1) in learning English was evaluated according to similar indicators of the criteria-based model (Figure 2) — the number of points on the *EF SET* online service under the *CEFR* methodology.

A repeated EF SET test was conducted at the end of the experiment. It was established based on the results of repeated test that the students of the control group showed an improvement in the initial level of English language proficiency by 3.06% – Figure 5.

The data filtering method — linear extrapolation Formula 3 was used to establish the median value of the score for the post-experimental testing of students of the control group:

$$y = -0.0079x + 36.989; R^2 = 0.003. \quad (3)$$

In this case, data filtering by linear extrapolation also certifies the appropriate homogeneity and integrity of the group of selected candidates for participation in the experiment.

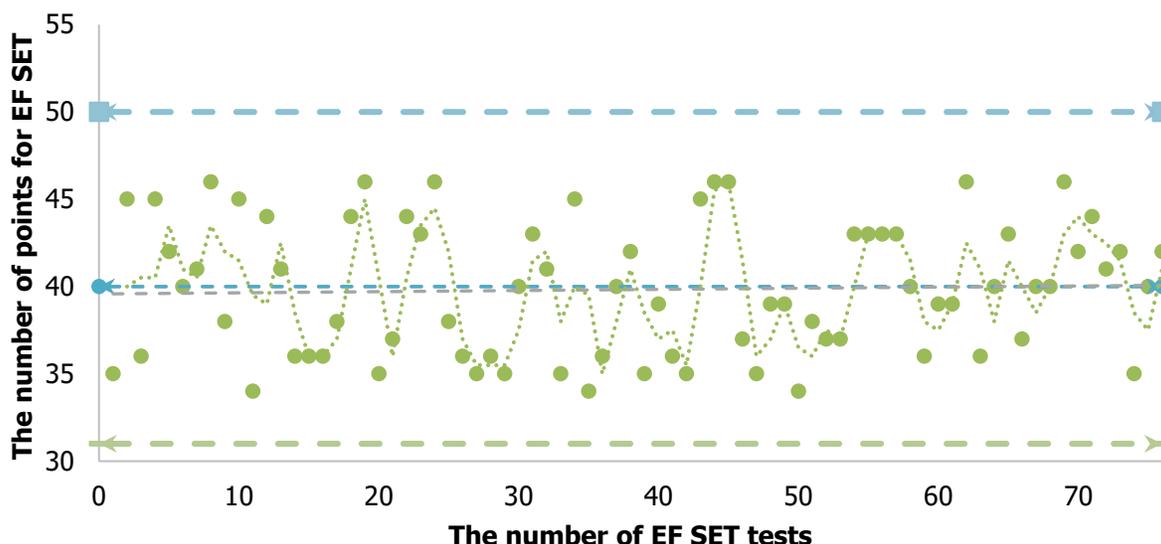


**Figure 5.** Results of post-experimental EF SET testing of control group students: improvement in English language proficiency – 3.06%

The data of repeated EF SET testing (Figure 5) were analysed. We observe that only a small number of students of the control group, who studied English according to the typical approved programmes and methods crossed the threshold of the range of EF SET scores corresponding to the CEFR A2 Elementary level and have progressed in learning a foreign language to the CEFR B1 Intermediate level (Table 3).

A similar procedure was carried out for the students of the experimental group, where the generative learning strategies and methods were applied during the empirical study. They are described in detail in the methodological section.

Repeated EF SET testing for students of the experimental group made showed an improvement in the level of English language proficiency by 8.92% more compared to the first testing – Figure 6.



**Figure 6.** The results of the post-experimental EF SET testing of students of the experimental group: improvement in the level of English language proficiency – 8.92%

In this case, the homogeneity of the formed group is also confirmed by the application of filtering by the method of linear extrapolation – Formula 4:

$$y = 0.0065x + 39.578; R^2 = 0.0014. \quad (4)$$

The obtained results of the *EF SET* testing of students of the experimental group are significantly better than the results of students of the control group. This gives grounds to transfer a part of the students who have passed the experimental course training on generative learning of the English language to the *B1 Intermediate* level according to the *CEFR* methodology (Table 3).

It is worth noting that most of the students of the experimental group, when taking the repeated test of English language knowledge on the *EF SET* online resource, crossed the limit value of the range of the *EF SET* score of *CEFR A2 Elementary*. This enabled to expand the performance in the transitional position between two classes of the standardized *CEFR* score (Figure 6).

During the empirical testing of the hypothesis about generative strategies for learning English, the students of the experimental group provided information about the course and dynamics of the educational process of learning new material in English using personal digital tools and cloud services. The following aspects are systematized among the features of the course of the educational process:

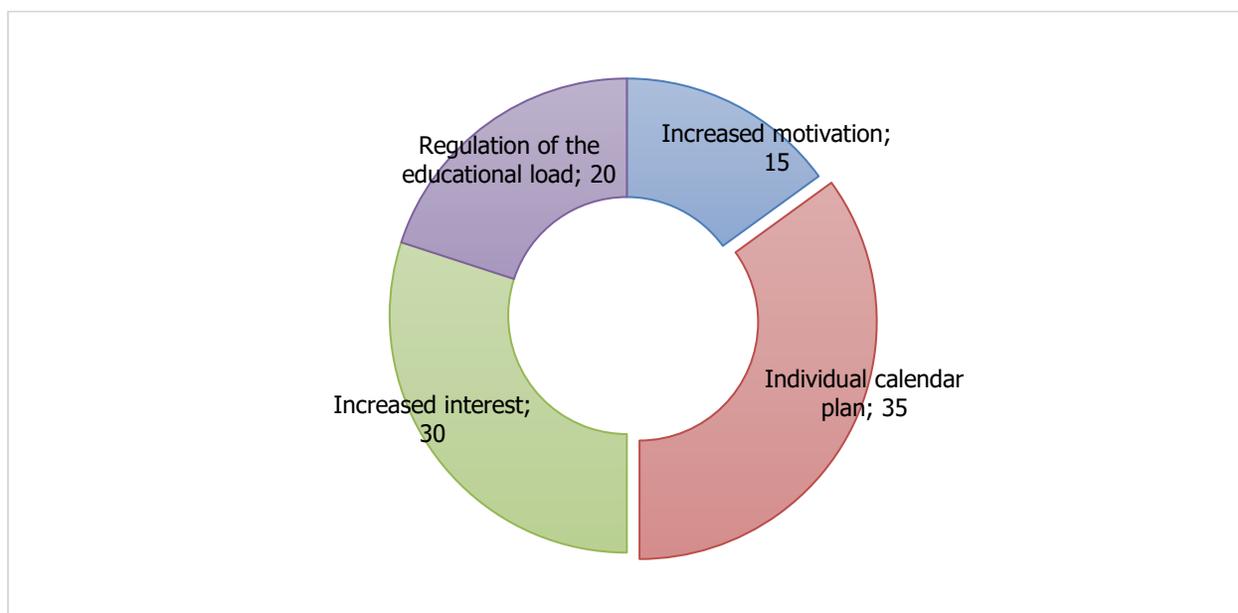
- increased motivation, which students associate with the use of new learning approaches;
- the possibility of using an individual calendar plan, which enables students to determine the study periods for learning English at their own discretion, to be freer within the chosen period of the experiment, and to reduce anxiety about the inevitability of deadlines;
- increased interest, which is associated with the use of atypical and creative content for the organization of generative learning of English adapted to modern ideas about the interactivity of the educational process;

- regulation of the educational load, according to which students individually determine the difficulty of each session of learning English and can vary the intensity of increasing the difficulty of the assignments of each subsequent educational session.

The distribution of aspects of the course of experimental learning English according to the generative strategy has a corresponding variance of student impressions – Figure 7.

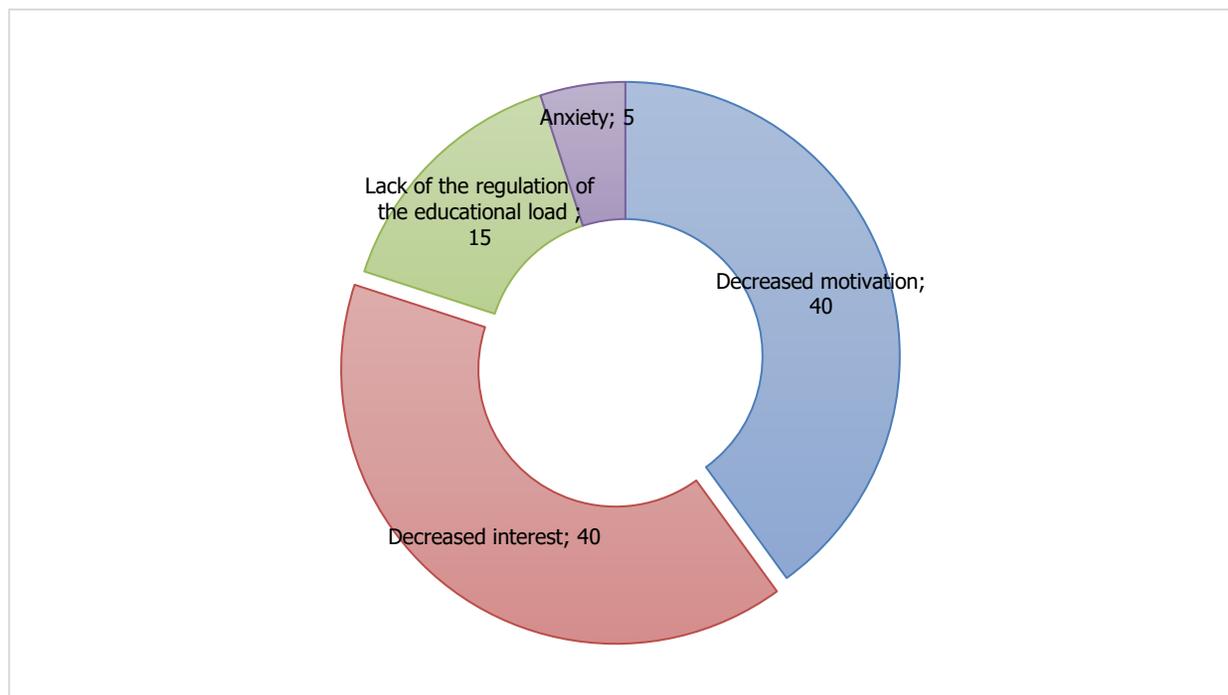
In contrast, the students of the control group note the following aspects of the typical methods of presenting educational material under the approved programmes and teaching methods:

- decreased motivation, which students associate with the low creativity and uniqueness of English language educational materials delivered in accordance with approved and established teaching methods;
- decreased interest that students associate with the possibility of providing course materials on the English language in open access, that is, students consider it inappropriate to attend educational sessions organized in the usual way;
- lack of regulation of the educational load and an individual approach to learning English, which students associate with the use of unitary and equalizing methods of providing educational material, which does not involve unevenness in teaching and must fully comply with the approved programmes and calendar plans
- anxiety about the possible onset of a state of unpreparedness for the knowledge test during the educational course, which students associate with the inevitability of knowledge tests that do not take into account the peculiarities of the individual perception of educational information for each participant in the educational process.



**Figure 7.** Variance of the impressions of students of the experimental group who studied English using generative learning methods

The distribution of aspects of the typical English language course has a corresponding variance of student impressions — Figure 8.



**Figure 8.** Variance of impressions of students of the control group who studied English using common learning methods.

According to the results of a cross-sectional and systematic survey, the main advantages of using generative methods in learning English for university students were established:

1. Increasing motivation to learn the language: generative learning methods can stimulate students to actively participate in the learning process, as they provide the opportunity to create their own text materials and use their own ideas to build conversational situations. This can help increase students' motivation to learn the language, and stimulate their interest in learning.
2. Active participation in the learning process: generative learning methods involve the active participation of students in the learning process, which enables them to be actively involved in language learning. Students can interact with each other, share ideas and answer questions, thereby developing their speaking skills.
3. Enriching vocabulary: generative learning methods enable students to actively use learned words and expressions in conversational situations. This can help to enrich vocabulary and improve the skills of using words and expressions in the right contexts.
4. Development of monologic and dialogic speaking skills: generative learning methods can contribute to the development of students' monologic and dialogic speaking skills. Students can have conversations on topics that interest them and create their own written materials, which provides an opportunity to develop self-expression and self-improvement skills.

Besides, generative learning methods also improve students' communication skills as they learn to create their own sentences and expressions in English. It helps students to be more confident in spoken language and communicate more productively with foreigners.

The results of the study prove the advanced hypothesis about the impact of generative methods and learning strategies on the effectiveness of learning English, which in turn requires a wider discussion and analysis.

## 6. Discussion

The results of the study confirm the advanced hypothesis about the potential possibility of improving the effectiveness of English language learning through generative learning methods using modern digital tools. Students of the experimental group showed a better level of English language proficiency for the repeated post-experimental EF SET testing compared to the results of students of the control group (with positive learning dynamics for both groups).

The resulting analytical conclusions correlate with the research results described in the publications of Osman and Shahrani (2022), Seo (2022), Oktaviani et al., (2021), Hao and Othman (2021) and Wang (2021). They are reported in detail in the Literature Review section of this study.

At the same time, there was no difficulty during the experiment regarding the uncertainty of the educational goals described in the publication of Bardone et al., (2022) in independent control. The reason is that personal data from the mobile (or online) platforms of the students of the experimental group with the required frequency, and at the controller's request, were sent to the online server. They were further analysed and adjusted, both individually and as a group, through the appropriate educational influence on the educational process according to the individual-general schedule.

The certified accreditation web resource *EF SET* (2023) was used to test and assess the level of English language proficiency before and after the experiment. It complies with the internationally recognized *CEFR* method (Council of Europe, 2023). Therefore, in this study there is no assessment problem described by Wang (2022). Moreover, the use of the specified accreditation web platform made it possible not only to perform testing and evaluation of the impact of generative learning models on the assimilation of English course materials. It also enabled forming a target group of students (experimental sample) with averaged *EF SET* scores. This method of selecting students ensured the indirect purity of the experiment, which was not observed in other studies. There researchers worked mainly with students who actually studied at a certain educational institution, or were selected randomly. The latter approach could create a precedent in which students (pupils) with a too divergent range of English proficiency would be involved in the experiment, which directly affects the quality and purity of the research (VOSviewer, 2023).

Besides, the proposed evaluation method used in this study has a specified and internationally recognized scale. Accordingly, it is objective and enables a thorough evaluation of the results of empirical research, in contrast to the vague, albeit affirmative assumption about the positive impact of generative methods in learning English made by Swanson et al., (2019).

The results, and the research itself, are fully and harmoniously integrated into the general concept of *Generative Second Language Acquisition*, formed in the systematized and thorough study of Slabakova et al., (2020). In this study, it is also recommended to implement an experimental method of English course learning using generative methods. Modern digital software tools and online platforms (resources) shall be involved in this process as an alternative to typical learning methods at the student's discretion. They need to be appropriately adapted and coordinated with the regulatory framework of universities and the Ministry of Education and Science of Ukraine.

## 7. Conclusions

The relevance of the results of this study indicates an urgent need to review and modernize established educational regulations and standards. The reason is that the latter do not integrate modern and effective educational teaching methods, including generative learning methods.

Empirical studies finally confirmed the advanced hypothesis about the appropriateness of applying a generative learning strategy in the English language course. The indicators of English language proficiency had greater dynamics towards improvement in the experimental group, which studied using the generative method and individual-general schedule with the involvement of mobile devices and online platforms, compared to the students of the control group (8.92% vs. 3.06%, respectively).

According to the research results, it is advisable to introduce an experimental course of generative learning of the English language as an alternative method at the student's discretion with appropriate adaptation to the educational requirements of higher educational institutions and the Ministry of Education and Science of Ukraine.

After broader research (provided positive results), it is advisable to arrange and unify the methodological framework in the generative study of the English language in the general concept of *Generative Second Language Acquisition*. It is also reasonable to develop an appropriate educational standard that will allow the achievement of national goals on the path of Ukraine's integration into the European Union.

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# International students adaptation to the educational environment of Ukrainian universities: Hearing the student voices

## Adaptación de los estudiantes internacionales al entorno educativo de las universidades Ucranianas: escuchar las voces de los estudiantes

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### Abstract

The article is devoted to the analysis of adaptation of international students to the Ukrainian educational environment. The adaptation of international students is carried throughout the entire period of study, but it is especially difficult in the first year. Therefore, the study of the adaptation process, its successful organization contributes to the faster inclusion of international students in the new environment, facilitates the process of their education. This study is a reflection of the real state of needs and problems of international students not only in the educational environment, but also in Ukraine in general. The purpose of the article is to study the challenges and experience of adaptation of international students residing in Ukraine. Methods of analysis, synthesis and systematization of data received after application of questionnaire on the adaptation of international students were used.

**Keywords:** adaptation, didactic/social-cultural/social-psychological components, educational environment, international students, higher education institution.

## Resumen

El artículo está dedicado al análisis de la adaptación de los estudiantes internacionales al entorno educativo ucraniano. La adaptación de los estudiantes internacionales se lleva a cabo durante todo el período de estudios, pero es especialmente difícil en el primer año. Por lo tanto, el estudio del proceso de adaptación, su organización exitosa contribuye a la más rápida inclusión de los estudiantes internacionales en el nuevo entorno, facilita el proceso de su educación. Este estudio es un reflejo del estado real de las necesidades y los problemas de los estudiantes internacionales no solo en el entorno educativo, sino también en Ucrania en general. El propósito del artículo es estudiar los desafíos y la experiencia de adaptación social de los estudiantes internacionales que residen en Ucrania. Se utilizaron métodos de análisis, síntesis y sistematización de los datos recibidos después de la aplicación del cuestionario sobre la adaptación de los estudiantes internacionales.

**Palabras clave:** adaptación, componentes didácticos/socioculturales/sociopsicológicos, entorno educativo, estudiantes internacionales, institución de educación superior.

## 1. Introduction

Nowadays, there has been a growing interest in researching the problems faced by the student youth while adapting to new life, education and work conditions in the context of intensification of migration processes and deepening of international contacts in the education field. In particular, the issue of adaptation of international students to the conditions of Ukrainian higher school intensifies the interest of scholars. The higher education internationalization, the academic mobility of students within the framework of trans-European educational programs, the increase in the number of international students of institutions of higher education, the expansion of international activities has become an indicator of the education system attractiveness and a significant factor in the state policy and university strategy (Suslova, 2019).

Since the beginning of military aggression against Ukraine in 2014, migration processes in Ukraine have significantly intensified. The communities of the western regions of Ukraine have faced serious challenges regarding the urgent needs solving of internally displaced people, including educational ones. Thousands of international students who studied at universities in the Crimea, in the Donetsk and Luhansk regions were forced to transfer to universities located on the safer territories of Ukraine. Since then, Uzhhorod National University (UzhNU), located in the Transcarpathian region – most western part of Ukraine, has welcomed thousands of international students.

However, the quality of education, which to a greater extent depends on the effective adaptation to the environment, remains one of the main criteria among the international students, affecting the choice of higher education institution for studies. The inclusion in the world rankings serves as the success criterion of modern universities. Currently, one of the most authoritative rankings is the global QS World University Rankings: EECA. In 2022 UzhNU occupied the 251-300 position among the best universities of developing countries of Europe and Central Asia. As of 2022, among the higher education institutions of Ukraine by the international student ratio UzhNU ranked the 4th position. In particular, 1.623 international students from 25 countries of the world studied at 10 faculties of UzhNU in 2022. Approximately 1.300 international students enrolled to the specialty "Medicine" at the Medical Faculty #2 with the English language of teaching, established in 2016.

With international students, new social problems related to the stay and study appeared in the student body structure. As summarized by Gu et al. (2010), adaptation of international students to the new educational environment lasts longer and continues throughout the stay with challenges. It is especially difficult in the first year of studies. Therefore, the thorough attention to the process of adaptation and its

successful organization contributes to the faster inclusion to the educational environment. For high-quality assimilation of knowledge on curriculum, it is necessary to take into account the mentality, psychological state, features of national self-consciousness, since among main difficulties are the psychological ones, in addition to the content-subject, language, didactic, and organizational. International students need to adapt to the educational environment, fit into the basic norms of the international team, find a sense of academic equality, and at the same time study to get a profession. However, the process of mastering professional competences by international students in the Ukrainian higher education institutions is complicated by significant differences in education systems, values, traditions, rules of behavior. It is also necessary to take into account the issues of racial equality, bureaucracy, household problems, the climate, etc., which may multiply the difficulties experienced.

The above mentioned actualizes the issue of adaptation of international students to the Ukrainian educational environment, since the quality of their professional competence formation and the effectiveness of their future professional activities depend on it.

In the light of these factors, in this study we focus on the experience and challenges international students residing in Ukraine face in the process of adaptation.

## 2. Literature review

The concept of "adaptation" varies in different fields. Scholars define adaptation as a process and as a result. They are united in the idea that adaptation takes place within the system "individual – society". Sorokin interprets adaptation, its essence and varieties through the relationship with the system of value orientations of an individual and society as a whole, as well as with social mobility. Parsons considers adaptation through the system "individual – society" and believes that social system is a spontaneous result of the processes of its components interaction (Ruchka, 2007).

Berry (2005), Lewthwaite (1996), Zhou et al., (2008) claim, that adaptation is a continuous process and involves striving for a balance between an individual and environment, adjusting and handling stress at different levels, requiring a lot of effort. It primarily concerns the peculiarities of mutual influence and penetration of values, instructions, and long-term plans implemented in the environment (Pachkovskyy, 2001).

GulRaihan and Sandaran (2017) provide the main reasons for the international students to choose their studies overseas – the search for: new environment; different lifestyle and society; new education system; better quality higher education institutions etc.

The phenomenon of adaptation of international students to the environment of higher education institutions is researched within the social-pedagogical or diactic (Bilyk, 2014), social-cultural (Quinton, 2020), and social-psychological context (Weidman, 2006).

There is a relatively small body of scientific literature with analysis, generalization, and systematization of the data on the main challenges international students meet in the process of adaptation to the new Ukrainian educational environment.

Ivanonkiv (2014), Klipachenko and Levkov (2021), Shcherbyak (2015) list the obstacles to the successful adaptation: longing for a family and friends; lack of motivation; depression; stress; worries; anxiety; culture shock; loneliness; reluctance to enter the communicate with others; insufficient understanding of educators and the education system; lectures and assignments misunderstanding; conflicts; poor knowledge of the language of the country of residence; reluctance to meet new social norms and interaction with people of another culture. On these grounds we agree with Kachynskyy (2018), who comes to the conclusion that

during the adaptation of international students to the new educational environment, it is necessary to provide: social-pedagogical supervision (i.e. social-pedagogical activities carried out during the entire period of study); social-pedagogical assistance at the stage of social integration; social-pedagogical support at the stage of social individualization in the process of acculturation through the interaction of international students with educators, mentors, administrative staff, etc. by coordinating the positive efforts of representatives of educational-cultural environment of the university and the social-cultural environment. Supervision, assistance, and support lead to the creation of optimal conditions for the effective adaptation of international students.

Savka et al., (2022) study the main components of adaptation of international students in conditions of quarantine caused by COVID 19. The scholars conclude that general social adaptation, social distancing and communication with other people, nostalgia and adaptation to the new environment become the most important issues for the academic success of international students.

Miziuk (2014) generalized the difficulties that international student experience in the new educational environment of Ukrainian universities:

- i. Educational-cognitive – associated with insufficient language training, differences in the education system, new requirements and knowledge of control systems.
- ii. Social-cultural – associated with learning new things on a social and cultural environment; overcoming the language barrier in solving communication problems.
- iii. Social-physiological – associated with restructuring of personality, entering the new environment, psycho-emotional stress, climate change, personal safety issues (tolerance and individual misunderstandings with local residents and representatives of other nationalities).

The priority tasks of higher education institutions are: 1) to set favorable conditions for effective adjustment to the educational and cultural environment of international students who have not been fully prepared for the successful educational and cultural interaction; 2) to help international students to overcome psychological, communicative and academic barriers in their adaptation process, which is a necessary prerequisite for the implementation of educational tasks, as well as interpersonal and intercultural interaction in the educational environment (Smolikevych et al., 2020).

Hu (2017) claims that adaptation of international students to the Ukrainian educational environment is a complex process of a active development and adaptation to the new social-cultural environment due to the implementation in higher education institutions of a set of conditions that ensure the acquisition and actualization by international students of basic elements of foreign culture, intercultural interaction skills, and educational-cognitive activity. This contributes to their successful professional-personal life formation and to the development in the new social environment. The constituent elements of student adaptation process are: subject of adaptation (an individual or a group that needs to adapt to the surrounding social environment); adaptation environment (external environment to which one needs to adapt); interaction of subject and environment (presupposes the adaptation process continuity, since the first two elements of the adaptation process constantly change).

Nyemets et al., (2016) define two groups of factors contributing to the better adaptation of international students to the new educational, cultural, and social environment: those that depend on students themselves; those related to the activities of educators. On the part of students, important factors are: the appropriate level of knowledge of instruction, the level of the basic training, individual ability to study, the peculiarities of the national mentality, etc. Educators, in turn, are to be not only competent in teaching a subject, but are: to have a high level of mastery of modern pedagogical technologies, to improve constantly professional skills, to be ready to assist international students in overcoming difficulties. A significant role

in the international students adaptation to the conditions of new education institution also belongs to the mentor of the academic group.

As a rule, international students are not affected by a single factor in the natural conditions of higher education institutions, but by a complex of environmental factors. In this respect, when researching the international students adaptation, scholars (Hu, 2017; Merola et al., 2019; Boiaryn & Zavatska, 2019) emphasise the importance to include the following components in the structure of adaptation of international students to the educational environment of Ukraine: didactic social-cultural, and social-psychological.

We cannot but agree with this position and in our study we present the results of sociological survey on the issue of adaptation of international students to the educational environment of Ukraine by the didactic, social-cultural and social-psychological components.

### 3. Methodology

The sociological survey on the topic "Adaptation of international students to the new educational environment" was conducted by the "Center for Sociological Research and Social Initiatives" of the Faculty of Social Sciences at UzhNU during January-February 2022. Our study included 128 international students enrolled in the Medicine program at the Medical Faculty #2 of UzhNU for the 2022/2023 academic year.

The majority of respondents were from India (85.2%), with smaller numbers from Nigeria (6.2%), Ghana (2.2%), UAE (1.6%), Pakistan (1.6%), Bangladesh (1.6%), Poland (0.8%), and Great Britain (0.8%). Out of all the respondents, 58.6% were male and 41.4% were female. The majority of respondents fell within the age range of 18-24 (93.8%), while only 6.3% were between 24-30 years old.

Regarding the duration of their stay in the Transcarpathian region of Ukraine, 35.2% of international students had resided for six months to a year, 28.1% for more than a year, 32% for more than two years, and 4.7% for more than three years. In terms of accommodation, 64.1% of respondents resided in a rented apartment, 6.3% in a rented house, 22.7% in a hotel or hostel, 4.7% in a university hostel, and 2.2% in their own property.

Adaptation was assessed based on factors such as feeling at ease in the environment, involvement in social activities, good adjustment, the presence of close social relations, and social skills contributing to successful integration.

We employed methods of analysis, synthesis, and systematization of data obtained from a questionnaire on the issue of adaptation of international students. To ensure maximum objectivity and reliability, the survey was conducted anonymously. All the questions were compiled into a single questionnaire, with each international student responding to each question. The obtained results were statistically processed according to standard procedures, considering measures such as the mean, mean error, absolute and relative values, as well as minimum and maximum indices.

### 4. Results and Discussion

Statistical processing of the data obtained from the questionnaire has allowed to provide the following results by the didactic, social-cultural and social-psychological components.

To the question on the educational process organization, the answers distributed as following: 25% (32 respondents) indicated the high level of organization of the educational process, 64.1% (84 respondents) indicated the satisfactory level, 12.5% (16 respondents) were dissatisfied with the quality of education in

general, 4.7% (6 respondents) complained on being overloaded with classes, 35.9% (46 respondents) mentioned the discrepancy between the studied courses and the specialty they were acquiring.

To the question on satisfaction with the organizational and material base of UzhNU, the answers distributed as following (see Table 1):

**Table 1.**  
*Satisfaction with the organizational and material base*

Aspect	Fully satisfied		Rather satisfied		Rather unsatisfied		Fully unsatisfied	
	%	N	%	N	%	N	%	N
<b>Schedule of classes organization</b>	39	50	48.4	62	9.4	12	3.2	4
<b>Access to the department, dean's office, library, administrative part</b>	45.3	58	28.9	37	14.9	19	10.9	14
<b>Access to the scientific literature sources necessary for the preparing to the classes</b>	53.1	68	23.4	30	18.8	24	4.7	6
<b>Access to the Internet</b>	25.8	33	38.3	49	21.9	28	14	18
<b>Availability of well-equipped classrooms, laboratories, medical equipment</b>	43.7	56	30.5	39	13.3	17	12.5	16

To the question on satisfaction with the atmosphere and psychological climate in the educational process, the answers distributed as following (see Table 2):

**Table 2.**  
*Satisfaction with the psychological climate in the educational process*

Aspect	Fully agreed		Rather agreed		Rather disagreed		Fully disagreed	
	%	N	%	N	%	N	%	N
<b>I feel comfortable while communicating with my classmates, students of other specialties</b>	25	32	62.5	80	9.4	12	3.1	4
<b>I feel comfortable while communicating with a mentor</b>	18	23	70.3	90	10.1	13	1.6	2
<b>I feel comfortable while communicating with educators, the department staff</b>	22.7	29	67.2	86	7.8	10	2.3	3
<b>There were cases of biased attitude towards me personally on the part of educator(s)</b>	5.5	7	25.8	33	45.3	58	23.4	30
<b>My expectations regarding education coincided with what I received</b>	18.7	24	55.5	71	16.4	21	9.4	12

To the question on assessing the chances on realizing life plans having received an education in the Ukrainian universities, the answers distributed as following: 43% (55 respondents) estimated the chances as very high, 33.6% (43 respondents) estimated the chances as high, 17.2% (22 respondents) estimated the chances as average, 1.6% (2 respondents) estimated the chances as low, 2.3% (3 respondents) estimated the chances as very low, 2.3% (3 respondents) could not answer this question.

To the question on the level of command of the Ukrainian language, the answers distributed as following: 44.5% understood the interlocutors if they spoke slowly and clearly, 42.2% could support a conversation on everyday topics, but made grammatical mistakes, 13.3% did not understand the Ukrainian language at all.

To the question on having Ukrainian friends among friends, the answers distributed as following: 2.3% (3 respondents) – had many Ukrainian friends, 55.5% (71 respondents) – had several Ukrainian friends, 42.2% (54 respondents) – communicated only with countrymen. Respondents also noted, that they received the most significant help and support in the process of social-cultural adaptation from their countrymen (75%), from the dean's office and mentors (61%), from educators (36%).

To get acquainted with culture and traditions of Ukrainian society, of a higher education institution, international students participated in various social activities (see Table 3).

**Table 3.**  
*Participation in various social activities*

Participation in	Active		Periodical		Not interested in	
	%	N	%	N	%	N
<b>Local festivals and fairs</b>	20.3	26	56.3	72	23.4	30
<b>Concerts</b>	18.7	24	47.7	61	33.6	43
<b>Charity events</b>	15.6	20	51.6	66	32.8	42
<b>Student events</b>	37.5	48	49.2	63	13.3	17
<b>Local religious events</b>	25	32	51.6	66	23.4	30
<b>Personal national religious events</b>	57	73	34.4	44	8.6	11
<b>Celebrating of local holidays</b>	26.6	34	53.1	68	20.3	26
<b>Celebrating of national holidays</b>	58.6	75	35.9	46	5.5	7

Free time organization is an important component for the friendships and getting acquainted with new norms of behavior. Thus, we studied the activities the international student participated in (see Table 4).

**Table 4.**  
*Free time organization*

Activities	Several times a month		Several times a week		Every day		Almost never	
	%	N	%	N	%	N	%	N
<b>Sports activities</b>	35.9	46	31.3	40	3.1	4	29.7	38
<b>Traveling</b>	35.9	46	8.6	11	0	0	55.5	71
<b>Earning money</b>	3.9	5	9.4	12	4.7	6	82	105
<b>Learning languages</b>	20.3	26	49.2	63	18.8	24	11.7	15
<b>Chilling with friends</b>	12.5	16	53.1	68	30.4	39	3.9	5

International students evaluated the social distance between them and Ukrainians (see Table 5):

**Table 5.**  
*Social distance between international students and Ukrainians*

I would like (allow) seeing Ukrainians as....	Agreed		Rather agreed		Disagreed		Difficult to answer	
	%	N	%	N	%	N	%	N
<b>my family members, close relatives</b>	48.4	62	26.6	34	9.4	12	15.6	20
<b>my close friends</b>	75	96	18	23	3.9	5	3.1	4
<b>my neighbors</b>	77.3	99	12.5	16	4.7	6	5.5	7
<b>my colleagues</b>	77.3	99	12.5	16	4.7	6	5.5	7
<b>as citizens of my country</b>	71.1	91	16.4	21	3.9	5	8.6	11
<b>visitors, tourists of my country</b>	82	105	8.6	11	3.9	5	5.5	7

To the question on being satisfied with the attitude of others towards them (international students) and their countrymen, the answers distributed as following: 21.9% (28 respondents) were very satisfied with the attitude, 48.4% (62 respondents) rather satisfied with the attitude, 14.8% (19 respondents) rather dissatisfied with the attitude, 10.2% (13 respondents) fully dissatisfied with the attitude, 4.7% (6 respondents) could not answer the question. Respondents also evaluated the attitude of others towards them in particular locations (see Table 6):

**Table 6.**  
*Attitude of others towards international students*

Location	Positive		Neutral		Negative		Difficult to answer	
	%	N	%	N	%	N	%	N
<b>Public transport</b>	39.8	51	50	64	5.5	7	4.7	6
<b>Stores, shops</b>	4.7	60	42.2	54	9.4	12	1.6	2
<b>Public catering establishments</b>	59.4	76	37.5	48	3.1	4	0	0
<b>State institutions (migration service, city administration, tax administration)</b>	54.7	70	36.7	47	4.7	6	3.9	5
<b>Places of residence</b>	53.9	69	36.7	47	9.4	12	0	0
<b>Medical institutions (hospitals, outpatient clinics, polyclinics)</b>	55.5	71	33.6	43	6.2	8	4.7	6

To the question on feeling safe in the new environment, the answers distributed as following: 82% (105 respondents) felt safe in the new environment, 7% (9 respondents) did not feel safe in the new environment, it was difficult for 11% (14 respondents) to answer this question.

Regarding the factors that affect the personal safety in the new environment, the answers distributed as following: 88.3% (113 respondents) pointed to the language barrier with local residents, 39.8% (51 respondents) highlighted the discriminatory attitudes of local residents, 27.3% (35 respondents) pointed to the problems of medical care, 26.6% (34 respondents) highlighted corruption and the bureaucracy of state bodies, 23.4% (30 respondents) pointed to the criminogenic situation in the city.

Respondents also reported on (see Table 7):

**Table 7.**  
*Attitude of others towards international students*

Aspect	Fully disagreed		Rather disagreed		Rather agreed		Fully agreed	
	%	N	%	N	%	N	%	N
<b>Discomfort of staying at the university and near it</b>	24.2	31	60.1	77	12.5	16	3.2	4
<b>A tense situation in the dormitory, conflicts</b>	17.2	22	50.8	65	27.3	35	4.7	6
<b>Locals single me out in some way</b>	14.8	19	60.2	77	24.2	31	0.8	1
<b>Local young people do not wish to come into contact, communicate</b>	10.9	14	44.5	57	35.2	45	9.4	12
<b>Conflicts on the basis of racism and nationalism</b>	18.7	24	46.1	59	25.8	33	9.4	12
<b>Inappropriate attitude of police officers</b>	26.6	34	56.2	72	12.5	16	4.7	6
<b>Low security in the city itself</b>	31.2	40	51.6	66	11.7	15	5.5	7

To the question on recommending the study at UzhNU, the answers distributed as following: 10.9% (14 respondents) fully agreed, 64.1% (82 respondents) rather agreed, 21.9% (28 respondents) rather disagreed, 3.1% (4 respondents) fully disagreed.

To the question on further plans after obtaining professional education, the answers of the respondents distributed as following: 52.4% (67 respondents) intended to return home, 38.3% (49 respondents) planned to migrate to the European countries or the USA for the permanent residence, 2.3% (3 respondents) planned to stay in Ukraine and find a stable job. Also, 2.3% (3 respondents) planned to continue obtaining higher education in another country.

Since the adaptation of international students to new didactic, social-cultural, and social-psychological conditions upon admission to the institution of higher education is the main factor affecting the educational process effectiveness, international students studying in Ukraine find themselves in a difficult situation: they are forced not only to master the new type of activity – studying at an institution of higher education, prepare for a future profession, but also to adapt to the new environment.

Hu (2017) defines the didactic component as a set of knowledge, skills and abilities of international students on the forms and methods of educational and cognitive activity, which are typical for a higher school of Ukraine, which gives them the opportunity to effectively organize their studies and successfully master their future profession.

When studying didactic adaptation, we proceeded from understanding it as a structural element of the general adaptation process, which: is determined by the specifics of adaptation of students to the components of the didactic system of a higher education institution; depends on the specifics of professional training chosen; is characterized as mastering the forms and methods of learning, the skills and abilities of mental work, skills of self-education and self-control. International students: familiarize with the content and prospects of the profession chosen, form the new attitude towards the future profession, accept social requirements for the professional activity; adapt to the conditions, content, character and organization of the educational process; study the organizational structure and requirements of the institution of higher education; familiarize with new norms of educational work, assessment, forms of independent work; form independence skills in educational activities and scientific work; adjust their behavior to the appropriate norms.

Utkyna (2011) examines the mechanisms of adaptation of international students in the Ukrainian universities and defines them as a certain integrity, which includes: (i) on the one hand, the active

adaptation to the new education system in a foreign country within new foreign social-cultural conditions, norms, values, and environment; (ii) on the other hand, a certain change of the environment itself in accordance with the needs and characteristics of foreign students, as objects of social adaptation. In this regard, foreign students can be considered both at the individual level and at the collective level – communities, groups, united by ethnicity, religion, interests.

The social-cultural component includes a set of ideas on the basic culture elements of the Ukrainian society, the culture and traditions of a higher education institution, the system of values and norms of behavior (Merola et al., 2019).

Social-cultural adaptation takes place both during educational activities and in the process of extracurricular activities. The latter significantly contribute to the acceleration of the adaptation process, forming linguistic and sociocultural competence. Adjustment to the new environment can take the form of friendships developing, participating in formal and informal social activities, free time organization, learning the Ukrainian language. It covers the active or passive adaptation of an individual to the new environment, the new team and its traditions, the building of interpersonal relationships and relations in student groups and the establishment of friendly relations with fellow students, the formation of personal style of behavior.

The social-psychological component involves the presence of motives, interests, needs, goals, and values-based instructions that provide emotional comfort to international students, their positive perception of another culture, the feeling of being a part of the university student body (Boiaryn & Zavatska, 2019).

International students with their specific cultural, ethnic and psychological characteristics are to overcome various psychological, social, moral and religious barriers, experience new types of activities and behavior forms. Indicators of successful adaptation are the high social status of an individual in the environment, satisfaction with this environment and with its most important elements. Indicators of low adaptation are behavior deviating from generally accepted norms.

During social-psychological adaptation, the interaction of an individual or a social group with the social environment takes place, in connection with which the requirements and expectations of social subjects are reconciled with their capabilities and the reality of the social environment. The main indicators of social-psychological adaptation are emotions, well-being and mental comfort. The success of adaptation depends on the characteristics of the environment and an individual. The more complex the new environment (for example, more social ties, more complex joint activities, higher social heterogeneity), the more changes occur in it, the more difficult adaptation is for an individual.

The integration of theoretical and applied aspects of the issue of adaptation of international students to the environment of higher education institutions in Ukraine is an important characteristic of the development of Ukraine's modern higher education, displayed, in particular, through its internationalization. In this respect further research of determinants of social adaptation, the development of special psychological-pedagogical and social-psychological programs aimed at providing assistance to international students for entering the new culture, society, educational environment of higher education institution, researching the dependence of the success of studies from the level of adaptation of international students to the social-psychological conditions of educational activities is rather promising.

## 5. Conclusions

These days, one of the most important tasks of Ukrainian higher school is to set favorable conditions for student (international as well) successful entry to the educational process, which is a necessary factor in removing difficulties in social adaptation. Adaptation is a rather complex, structured phenomenon that

encompasses all the essential (physiological, psychological, and social) powers of an individual, who not only reacts to changes in the environment, but also changes this environment.

International students face a number of problems in the process of adaptation, related both adaptation to the educational process and to the new environment. Peculiarities of adaptation of international students are determined by a complex of factors: didactic (educational), social-cultural, and social-psychological.

The results of the analysis of literary sources on the problem of adaptation of foreign students in the educational environment of Ukraine and the empirical data obtained in our study allowed us to conclude that:

- More than half of respondents are satisfied with the organization of the educational process and a quarter of respondents even indicated a high level of educational process organization. Among the problems the respondents mentioned the discrepancy in the studied courses with the specialty acquired;
- In their first months of studies international students face such difficulties as the lack of clear tasks and recommendations for performing practical tasks, independent work, the lack of information on the organization of the educational process, large scope of educational information and a fast pace of teaching;
- International students are quite satisfied with the atmosphere and psychological climate in the educational process, although they mention the cases of biased attitude of educators towards them;
- Language challenge is the most severe of all other challenges making socio-cultural and academic adaptation very hard. It is a positive fact that in general 40% of international students understand and can communicate in the Ukrainian language, despite the fact that their studies are conducted in English and they are not required to speak the Ukrainian language;
- The majority of international students take part in local festivals and fairs, concerts, charity events, and student events;
- Despite the fact that international students sometimes participate in local religious events, they prefer to participate in their national religious events and observe their traditions in celebrating holidays;
- When measuring the social distance towards Ukrainians, the attitude of international students turned out to be quite positive and friendly. Also, the majority of international students feel safe in the new environment, but among the factors affecting personal safety they mention the language barrier, discriminatory attitudes, problems with medical care, corruption and bureaucracy of the state bodies, as well as the criminogenic situation in city.
- more than half of international students have friends among Ukrainians, but more than a third still interact and communicate only in their social circle.

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## Innovations in the field of education in the context of improving the personnel incentive system

### Innovaciones en el ámbito educativo en el marco de la mejora del sistema de incentivos al personal

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#### Abstract

The article summarizes the trends of change in education as a context for the development of social innovations and posing the problem of their open management in the interaction of educational organizations. The concept of "social innovation" is concretized, revealing their essential features and characteristics, including management features them. The possibility of integrating process, project, system approaches to the management of social innovations on the basis of their comparative analysis is substantiated. A pedagogical strategy for managing social innovations in intra-organizational and inter-organizational network interaction of educational organizations has been developed and its effectiveness has been tested.

**Keywords:** pedagogical strategy, education, social innovations, management.

#### Resumen

El artículo resume las tendencias de cambio en la educación como contexto para el desarrollo de innovaciones sociales y plantea el problema de su gestión abierta en la interacción de las organizaciones



educativas. Se concreta el concepto de "innovación social", desvelando sus rasgos y características esenciales, incluidas las características de gestión de las mismas. Se fundamenta la posibilidad de integrar enfoques de proceso, proyecto, sistema a la gestión de las innovaciones sociales a partir de su análisis comparativo. Se ha desarrollado una estrategia pedagógica para la gestión de las innovaciones sociales en la interacción en red intraorganizacional e interorganizacional de las organizaciones educativas y se ha probado su eficacia.

**Palabras clave:** estrategia pedagógica, educación, innovaciones sociales, gestión.

## 1. Introduction

In the most general terms, social innovations are understood as changes in the social sphere (health, education, politics, social protection and social services, economy) aimed at improving the life of society. to social innovations include public-private partnerships, social entrepreneurship, open access technologies, new forms of social interaction, innovations in the field of education and healthcare, improvement of the personnel incentive system, and continuous education.

Social innovations are an inexhaustible resource that can ensure the development of organizations, the economy, and the state as a whole. The result of the implementation of social innovation can be an increase in the efficiency and competitiveness of social entities, organizations, the welfare of society, and a change in social practices. Conceptual Foundations the need for the development of social innovations and their management are contained in various strategic documents that influenced education, which, in accordance with modern trends in globalization, digitalization, networkization, changing the nature of innovations in the direction of increasing subjectivity requires a change not only in established social and educational practices, but also in pedagogical strategies for managing them (Giesecke et al., 2020).

Educational organizations of additional education are active nodes of network interactions, initiating and implementing social innovations due to the interdepartmental nature of activities, less formalization compared to general education, openness to joint activities with different subjects of education, which contributes to leveling the deficits of different types of education, the development of educational organizations and translation the potential of additional education as a resource for the development of the education system as a whole. However, innovation management strategies not always implemented in educational organizations take into account the listed opportunities for additional education, which can lead to stagnation or formalization of innovative activity. An actual direction of modern theoretical and applied research in the field of social innovations can be called the study of the specifics of their management.

Based on a theoretical review and analysis of existing practice, the following contradictions in the management of social innovations in education can be identified:

- between the orientation of education to subjectivity, humanization, dialogue, change in education management in the direction of openness, humanitarization and the predominance of administrative (closed) management in educational organizations;
- between the need for network interaction of educational organizations as a space for the development of social innovations and insufficient development of effective approaches to managing social innovations;
- between the growing need for the development of social innovations in the additional education of children and the insufficient development of pedagogical strategies for managing them in the network interaction of educational organizations of additional and general education (Oeij, Vaas, Torre & Dhondt, 2011).

The idea of the study is to substantiate and implement such a pedagogical management strategy that would be in demand, firstly, by educational organizations as a resource for their development and transition from spontaneous and local social innovations to systemic and controlled ones; secondly, teaching staff (agents of change) to ensure their professional growth and self-realization; thirdly, by customers of educational services as products of social innovations.

## 2. Literature review

The high potential of the study of social innovation is also evidenced by the growth in the number of scientific papers devoted to this issue, mainly in sociology, economics, philosophy, while research social innovations in the pedagogical aspect are not enough. The most famous works on the phenomenon of social innovation (Caulier-Grice et al., 2021), (Drucker, 1987), (Havas, 2016), (Hazelkorn, 2021), (Hinterhueber & Levin, 1994). Social innovations in education were investigated (Hochgerner, 2011), (Howaldt, Koop & Schwarz, 2009), (Miles & Snow, 1992).

One of the promising areas for studying social innovations in the field of education is the study of their management in the network interaction of educational organizations, since network interaction creates sources of competitive advantages and space for the development and diffusion of social innovations. In this regard, social innovations can have a dominant influence on the choice of development strategy for an educational organization.

Despite the sufficient theoretical study in the pedagogy of network interaction and the practical experience of its organization as a whole, it is possible to fix the absence in pedagogical science of a systematic understanding of social innovations (their composition, features, characteristics, management mechanisms, necessary pedagogical conditions) and, as a result, fragmentary use of the potential of social innovations in the field of education or their imitation. Imitation always arises as a result of the closed management of innovations in the conditions of their pushing "from above", which can lead to the stagnation of an educational organization (Pol & Ville, 2009). Therefore, there was a need to develop a pedagogical strategy for managing social innovations in the network interaction of educational organizations, which makes it possible to identify the structure, features, characteristics, necessary pedagogical conditions, mechanisms for managing social innovations.

## 3. Aims

The purpose of the article is to theoretically substantiate, develop and implement a pedagogical strategy for managing social innovations in the network interaction of educational organizations in the field of additional and general education.

The object of the research is social innovations in the field of education.

The subject of the research is the management of social innovations in the network interaction of educational organizations of additional and general education.

## 4. Materials and methods

Theoretical: analysis of pedagogical, philosophical, sociological, economic literature, legal acts of the European Union related to the research topic; analysis of the management system for the organization of additional education, modeling of the pedagogical strategy for managing social innovations in the network interaction of educational organizations.

Empirical: reconstruction and analysis of pedagogical experience, pedagogical experiment, observation, survey methods (questionnaire, conversation). Methods of statistical processing of the results of experimental work.

## 5. Results

Changes in modern education - globalization, digitalization, networkization, changes in the nature of innovations in the direction of strengthening subjective initiatives - update the study of social innovations in the field of education and the creation of effective pedagogical strategies for managing them.

Social innovations are a controlled process of changes in social practice, the content of which is the identification and satisfaction of the social needs of different subjects in education, the organization and support of motivated network interaction between organizations and personalities of different levels and their development.

The characteristics of social innovations in the field of education that affect their management are openness (informational openness, the formal absence of a hierarchy, new forms of social practice), compatibility (involving different subjects of education in joint innovation activities; close interaction between the external and internal environment; a network method of organizing an innovative activity), non-linearity (simultaneous processes that require managerial influence, wide coverage of influence, variability of interactions, which is the basis for constant changes, "increased fluctuations", the possibility of alternative development paths and their choice), complexity (complex or multi-level relationships, the possibility of self-organization through the manifestation of initiatives "from below", delayed results, multiple effects), heterogeneity (different educational organizations have experience in different social practices, build different management structures, form different social capital; different social innovations are at different stages of the life cycle). These characteristics influence the choice of a pedagogical strategy for managing social innovations.

The management of social innovations requires an appropriate pedagogical management strategy, characterized by: a) the priority of choosing an open concept of managing social innovations; b) the integration of process, project and system approaches to management, due to the need for the simultaneous implementation of heterogeneous social innovations initiated by different subjects of education; c) humanism (since the innovation process is aimed at changing the subject of social innovation - a person) and resourcefulness (due to the fact that initiatives "from below" are considered as a resource for the development of educational organizations and their network interactions); d) the development of teachers as subjects of social innovation, which is expressed in a change in the types of their activities from individual to joint, types of joint action (closed reversed open) and positions of the teacher (resistance follower agent of change).

The pedagogical strategy for managing social innovations is implemented in intra-organizational and inter-organizational network interactions of educational organizations of additional and general education of children. The effectiveness of the pedagogical strategy for managing social innovations is proved by recorded results: short-term (number of educational products, educational services, new management structures, interactions) and long-term (dynamics of innovation potential, motivation structures for innovation, susceptibility to change (Murray, Caulier-Grise & Mulgan, 2012)). The humanism and resourcefulness of the pedagogical strategy for managing social innovations provides a new quality for the implementation of extracurricular activities and additional general developmental educational programs. This new quality is manifested in the implementation of individual educational choice, as well as various forms of individual and joint creative, research and project activities of students, creating a situation of success for each student.

## Scientific results

1. It has been established that the relevance of the development of social innovations in the field of education, as well as their management, is due to such changes as globalization, digital transformation, networkization, a change in the nature of innovations in the direction of strengthening subjective initiatives.
2. It has been proven that social innovations in the field of education, firstly, have such characteristics as openness, compatibility, non-linearity, heterogeneity, complexity, humanitarianism and resourcefulness; secondly, they require a humanitarian and resource management strategy; thirdly, they develop in intra-organizational and inter-organizational network interactions.
3. It is substantiated that the pedagogical strategy for managing social innovations in the network interaction of educational organizations, firstly, is carried out in the integration of process, project and system approaches, which allows the development of many heterogeneous subjective initiatives; secondly, it is implemented mainly in the logic of the concept of open innovation, which affects the nature of the transformations of social practice in educational organization and changing the type of its innovative development.
4. A pedagogical strategy for managing social innovations at the level of intra-organizational and inter-organizational network interactions has been developed and implemented, contributing to the implementation changes in social and educational practices in organizations of additional and general education.

### Theoretical significance of the study.

1. The concept of social innovation has been clarified as a controlled process of changes in social practice, the content of which is the identification and satisfaction of the social needs of different subjects in education, the organization and support of motivated network interaction between organizations and personalities of different levels and their development. Clarification of the concept of social innovation made it possible to define the pedagogical strategy for managing them as organizing the actions of teachers to support, create, develop, implement and diffuse social innovation, carried out in the process of achieving the development goals of an educational organization.
2. It was revealed that the organization of additional education in its development from closed to open goes through several stages:
  - a) functioning, characterized by the implementation of an external order;
  - b) adaptation of educational products and services to the needs of the clients of the educational organization;
  - c) individualization of educational products and services in accordance with the needs of different subjects of education;
  - d) development of intra-organizational network interactions, characterized by open professional communications of teachers, active research and project activities;
  - e) resource integration into existing horizontal, vertical or diagonal network interactions;
  - f) open joint activity, characterized by the implementation of subjective initiatives of participants in network interactions.
1. It is proved that modern social innovations are network ones, as they develop in intra-organizational and inter-organizational network interactions. As they develop, they can create new network interactions between organizations and individuals in real and virtual environments.
2. The content of the model of the pedagogical strategy for managing social innovations is substantiated, including the goal, approaches to management, stages, principles, content and mechanisms of management, types of results (productive, professional, research, institutional), indicators of the

effectiveness of the development of social innovations - long-term (effects) and short-term (products and services), measurable quantitatively and qualitatively.

## 6. Discussion

In the context of the study, it was found that changes in education are the driving force for the development of social innovation. It is proved that modern social innovations are network ones. It is substantiated that interorganizational and intraorganizational networks form elements of an ecosystem for the development of social innovations, and social innovations develop the potential of networks.

The concept of "social innovation" for the education sector has been clarified. The influence of the chosen concept of social innovation management on the transformation of social practices in educational organizations is substantiated. A comparative analysis of social innovations in the field of education was carried out, which made it possible to distinguish their characteristics according to the criterion of content (openness, compatibility, complexity, heterogeneity) and the criterion of management (openness, non-linearity, humanitarian and resource management strategies).

Approaches to the management of social innovations - process, project and system, are studied, a comparative characteristic is presented and their integration potential is revealed to support and develop social innovations in the field of education.

A pedagogical strategy for managing social innovations in the network interaction of educational institutions of additional and general education has been developed and implemented as an organization of actions to support, create, develop, implement and diffusion of social innovation implemented in the process of achieving the development goals of an educational organization. The priority pedagogical strategies for managing social innovations include humanitarian and resource strategies for managing social innovations, implemented in the conditions of openness of education.

## 7. Conclusions

Thus, the main conditions are a change in the positions of teachers from resisters to followers and agents of change, a change in the mentoring model, a change in conflict interactions into productive joint activities:

- changing pedagogical activity: strengthening the degree of influence of teachers on management, open professional communication, changing the ways of professional development;
- a change in the organization of education: the introduction of distance modules into the content of educational programs, the creation and implementation of educational products and services demanded by various subjects of education instead of the formal implementation of a municipal task.
- change in management: changing rigid vertical management structures to flexible ones through the development of project teams.
- In interorganizational networking:
- change in the management structure (appearance of project teams) and processes (joint development of goals and objectives, norms of joint activities);
- development of the ecosystem through the interaction of various types of actors involved (educational organizations, charitable foundation, social institution, parents, students, government agencies).

The prospects for further research on social innovations in education and their management are seen in the study of digital ecosystems of social innovations in education, their impact on the personal results of students and teachers, as well as on the education system in the national and international context.

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## **Integrated development of german-speaking socio-cultural competence through the formation of linguistic competence in reading**

### **Desarrollo integrado de la competencia sociocultural alemán a través de la formación de la competencia lingüística en la lectura**

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### **Abstract**

This article aims to analyze the problem of forming students' socio-cultural competence in the process of learning German as a foreign language in a specialized higher language educational institution. The study adopts a qualitative research approach, utilizing an analysis of literature and educational practices in specialized language institutions. The focus is on the sociocultural component of communicative competence and its relevance in foreign language learning. The analysis highlights that sociocultural competence is a crucial functional aspect of language communication, encompassing knowledge of the socio-cultural context in which a foreign language is used. Studying the cultural originality of native speakers plays a pivotal role in forming linguistic competence. Informative reading not only improves communicative competence but also meets the professional information needs of specialists, enabling them to acquire knowledge in a foreign language independently. The study reveals the significance of socio-cultural competence in foreign language learning and emphasizes the importance of studying the cultural originality of native speakers. It suggests that informative reading serves as an effective method for

fostering socio-cultural competence and enhancing language proficiency. The findings highlight the need for further research on content selection, structuring of socio-cultural competence, and the development of pedagogical tools in German language instruction at the university level.

**Keywords:** integration, teaching methods, practical classes, higher education, socio-cultural competence, communicative competence, cultural context.

## Resumen

Este artículo tiene como objetivo analizar el problema de la formación de la competencia sociocultural de los estudiantes en el proceso de aprendizaje del alemán como lengua extranjera en una institución de educación superior especializada en idiomas. El estudio adopta un enfoque de investigación cualitativa, utilizando un análisis de la literatura y las prácticas educativas en instituciones especializadas en idiomas. La atención se centra en el componente sociocultural de la competencia comunicativa y su relevancia en el aprendizaje de lenguas extranjeras. El análisis destaca que la competencia sociocultural es un aspecto funcional crucial de la comunicación lingüística, que abarca el conocimiento del contexto sociocultural en el que se utiliza una lengua extranjera. El estudio de la originalidad cultural de los hablantes nativos juega un papel fundamental en la formación de la competencia lingüística. La lectura informativa no solo mejora la competencia comunicativa sino que también satisface las necesidades de información profesional de los especialistas, permitiéndoles adquirir conocimientos en una lengua extranjera de forma independiente. El estudio revela la importancia de la competencia sociocultural en el aprendizaje de lenguas extranjeras y destaca la importancia de estudiar la originalidad cultural de los hablantes nativos. Sugiere que la lectura informativa sirve como un método eficaz para fomentar la competencia sociocultural y mejorar el dominio del idioma. Los hallazgos resaltan la necesidad de más investigación sobre la selección de contenido, la estructuración de la competencia sociocultural y el desarrollo de herramientas pedagógicas en la enseñanza del idioma alemán a nivel universitario.

**Palabras clave:** integración, métodos de enseñanza, clases prácticas, educación superior, competencia sociocultural, competencia comunicativa, contexto cultural.

## 1. Introduction

The intensification of international relations in the context of integration and globalization trends in the world community contributes to an increase in the general interest in learning foreign languages, in particular German as an important means of international communication. According to many leading scholars, high-quality preparation of young people for diverse communication in a foreign language involves not only learning basic vocabulary and phraseology, spelling, and syntax but also a sufficient understanding of the cultural uniqueness, traditions, customs, creative heritage, and mentality of native speakers.

The relevance of the issue of integrated development of linguistic and sociocultural competence lies in the importance of forming foreign intercultural communicative competence, which is the ultimate practical goal of teaching and learning a foreign language for students of philology and pedagogical specialties. An important aspect is also the correlation between foreign language communicative competence and foreign language intercultural communicative competence.

Foreign language communicative competence as a goal was set earlier with the development of the communicative approach in the methodology and, accordingly, it includes the following components:

- a) linguistic competencies – lexical, grammatical and phonetic;
- b) speech competencies – in speaking, listening, reading, and writing;
- c) educational and strategic competence and linguistic and sociocultural competence.

Teaching intercultural communication through the development of foreign language intercultural communicative competence is a modern goal that has emerged with the development of the intercultural approach. It continues the previous goal and has been intensively researched over the past decade.

**The research aims** to study the peculiarities of the integrated development of German-speaking socio-cultural competence through the formation of linguistic competence in reading.

## 2. Theoretical background

Various aspects of the interdependence of language and culture have been discussed in detail in the philosophical, cultural, psychological, and pedagogical literature (Sazonenko, 2000; Rezvan, 2012; Piatnytska & Pozdniakova, 2003; Ortynskyi, 2009; Nikolaieva, 2016; Nahaiev, 2007; Lihum, 2011; Kushnir et al., 2012; Kuzminskyi, 2005; Kozak, 2014). However, at the same time, the same aspects have not been sufficiently studied in terms of foreign language teaching methods in specialized higher education institutions. In our opinion, it is the methodology of teaching a foreign language at a university, based on the scientific achievements of modern philosophy and methodology of education, that can ensure the readiness of future teachers for quality education and comprehensive development of students through a foreign language as an embodiment of authentic cultural activity. In this regard, based on the high relevance and insufficient study of the problem, this paper is devoted to the theoretical analysis of the possibilities of forming students' speech competence in the process of learning German as a foreign language in an HEI.

One of the main goals of teaching a foreign language at a linguistic higher education institution is to develop students' communicative competence in the target language. It is assumed that communicative competence consists of four main components:

- 1) linguistic competence
- 2) speech competence;
- 3) sociocultural competence;
- 4) strategic competence (Styshov, 2008; Dychkivska, 2004; Vlasenko, 2014; Vitvytska, 2006; Butenko, 2012).

A large number of people speak German around the world. It is believed that modern German belongs not only to its native speakers but also to all people who use it as a natural means of communication. In such a situation, determining who can and should become the standard of linguistic behavior for students of a language university is quite difficult. In our opinion, to address this issue rationally, it is essential to establish which model is the most appropriate and appropriate for a particular language learning environment.

For example, when German is learned to communicate at the international and intercultural levels, it is advisable to create appropriate conditions and use pedagogical means, such as explanations, selection of actual language material, examples, etc., so that students form judgments in advance about the different variants of German accepted in the environment by both native speakers and non-native speakers who use this language for linguistic communication.

It is worth noting that learning a language necessarily involves familiarizing oneself, to varying degrees, with the culture of native speakers, and with the norms and values accepted in the society of native speakers. In addition, adequate use of the language is necessarily based on the fulfillment of certain norms of behavior accepted among the representatives of this culture.

Researchers of the problem of developing language competence note that in the vast majority of cases, foreign language teaching is traditionally focused on learning different aspects of language, such as

vocabulary, grammar, and phonetics. Moreover, much attention is paid to the development of skills and abilities in speaking, listening, reading, and writing (Borysko et al., 2004 2013, 2018; Berezivska, 2002; Auzina et al., 2002; Thomas et al., 2005; Spitzberg & Changnon, 2009; Bolten, 2007).

Therefore, it should be noted that the functional side of language competence is often ignored. As a result, language learning is reduced to acquiring knowledge about the language rather than mastering the language as a means of linguistic communication. Thus, the formation of the socio-cultural component of linguistic competence in particular, as well as adequate mastery of a language in general, involves the study of its culture. It should also be emphasized that the study of culture is impossible without mastering the language of the representatives of this culture. However, it is necessary to determine who exactly should act as a standard of linguistic behavior in a particular context of foreign language teaching in a specialized language university. In the case of German, it is also worthwhile to determine which culture's representatives will be the optimal model of language behavior that is most acceptable in our language learning environment.

The review of publications shows that modern research on the theory and practice of developing language competence is characterized by conceptual and methodological differentiation, which is determined by the goals and objectives of a particular field of knowledge. It is worth noting that there is a certain consensus in the definition of the terms. Typical for language competence is a great variety of terminology and inconsistency, namely, different components of competence:

- intercultural,
- intercultural communicative,
- cross-cultural,
- transcultural,
- (bi-)cultural,
- ethnocultural, etc.

Scholars debate whether intercultural competence should be distinguished from ICC, ICC from foreign language ICC, and foreign language ICC from foreign language communicative competence. Some researchers use these terms synonymously, but most believe that they are different types of competencies. The British Methodist Michael S. Byram (1997) called the ability to communicate in intercultural situations in one's native language intercultural competence, and in a foreign language – foreign language intercultural competence.

The correlation between foreign language communicative competence and (foreign) intercultural communicative competence, which is nowadays defined by many methodologists as the ultimate practical goal in teaching and learning a foreign language, is a matter of considerable debate. In this regard, it is worth recalling that the term foreign language communicative competence appeared a little earlier with the development of the communicative approach. At the same time, the term intercultural communicative competence emerged only during the formation of the intercultural approach to foreign language teaching. Linguo-sociocultural competence is one of the most important components of foreign language intercultural communicative competence in various concepts. In the presented domestic Ph.D. theses on the training of future foreign language teachers, the focus is on the research of methods of forming lingo-sociocultural (or sociocultural) competencies (Bilotserkivska, 2009; Golub, 2010; Kalinin, 2015; Zadorozhna, 2018, etc.).

Linguistic and sociocultural competence in a foreign language is not formed automatically but requires specially trained teachers and appropriate teaching materials that model the dialogue of cultures and intercultural communication. Moreover, it requires a new methodology that fundamentally takes into account the integrated development of this competence with other language and speech competencies, in particular reading competence.

### 3. Methods

The methodology involves a combination of systematic, synergistic, and cultural approaches to analyze and develop the socio-cultural competence of future foreign language bachelors through interdisciplinary integration. By identifying individual abilities, implementing innovative technologies, focusing on motivated attitudes, using performance assessment tests, and incorporating a cultural approach, the study aims to foster the holistic development of socio-cultural competence in language learners.

The systematic approach is employed to analyze the essence of general cultural and professional training of future foreign language bachelors. It emphasizes the need for unity and interaction among various components of the educational process, recognizing the ongoing intellectual, creative, and professional development of individuals in mastering socio-cultural competencies.

The synergistic approach focuses on understanding the individual characteristics of students and the unique styles of the educational process's subjects. It involves predicting the impact of innovative educational technologies on students and emphasizes the importance of relying on a system of knowledge to foster the socio-cultural competence of future foreign language bachelors through interdisciplinary integration.

A mechanism is developed to identify the individual abilities of students. This involves diagnostic tools, assessments, and observations to understand students' strengths, weaknesses, and learning preferences. The didactic approach emphasizes fostering a motivated attitude among students towards novelty and innovative approaches. It involves creating an engaging and stimulating learning environment that encourages active participation and exploration.

Performance assessment tests are designed to evaluate the progress and development of socio-cultural competence among future foreign language bachelors. These tests include oral presentations, written assignments, group projects, or simulations that assess both linguistic and socio-cultural understanding. A management scheme is developed to effectively introduce innovative technologies in accordance with European educational requirements. This includes planning, implementing, and evaluating the integration of interdisciplinary approaches, ensuring alignment with the goals and objectives of the curriculum.

The cultural approach is utilized to substantiate the theoretical and methodological fundamentals of forming socio-cultural competence. It recognizes the current socio-cultural situation and views a specialist in a particular professional field as a person of culture who encompasses the cultural achievements of mankind. The instrumental and normative model of training is replaced by a cultural and creative model, emphasizing the importance of cultural understanding and creative expression in the formation of socio-cultural competence.

### 4. Results

Speaking about teaching German in a language university, it should be noted that one of its main tasks is to develop students' ability to communicate adequately in the language they are studying. This is possible if students are familiarized with the rules and norms of linguistic behavior accepted among people who use the language as a natural means of communication. If this (socio-cultural) aspect of language competence is not given due attention in the learning process, the formation of such a skill becomes impossible. Thus, in our opinion, there is no doubt that the role of the phenomenon of culture in the process of teaching a foreign language is extremely important. Therefore, getting acquainted with the original cultural heritage of native speakers and teaching their culture should take an important place in the process of teaching a foreign language for professional purposes. Hence, it is extremely important to determine a pedagogically appropriate and methodologically competent set of the most effective methods and ways of studying culture in the context of language teaching. First of all, in our opinion, it is necessary to determine what amount

of knowledge in the field of culture of the target language is necessary and what exactly language university students should learn to make adequate speech communication in the target language possible (Foreign Languages, 2016). Since in the context of learning a foreign language for professional purposes, one should strive to achieve the highest level of language proficiency, a deep knowledge of social conventions and the acquisition of behavioral canons, verbal and non-verbal norms inherent in native speakers are essential.

To address this issue, it is advisable to teach students strategies for finding a way out of situations that may be beyond their linguistic and sociocultural knowledge to ensure the quality of their language competence. In addition, students should be aware that some phrases may be acceptable in one culture but completely unacceptable in another. However, knowing the list of such phrases does not guarantee the exclusion of errors caused by differences in cultures in the future.

Speaking of pedagogical, organizational, and methodological conditions that contribute to the effective development of sociocultural competence, we should, first of all, note the indispensability of the experience of direct communication with the culture of the language being studied. Unfortunately, this is still not realistic for the vast majority of German language learners at present. However, this does not mean that language should be taught in isolation from culture. All materials used in language learning for professional purposes should be authentic. It seems to us that the authenticity of the textual materials used should be one of the main principles of selecting reading and listening materials. Adherence to the norms of speech communication adopted by native speakers and the naturalness of the context in which the speech communication takes place contributes to much more successful learning. According to this statement, targeted and consistent reading, in particular books containing information on the culture of German-speaking countries, listening to audio materials, and watching videos, programs, and films in German with subsequent discussion, can significantly contribute to the effective development of sociocultural competence. Moreover, in our opinion, it can contribute to teaching students German at the level of understanding, knowledge, and communication skills.

Thus, the theoretical analysis of the problem of forming students' speech competence in the process of learning German as a foreign language in a specialized linguistic HEI has confirmed that:

- 1) knowledge of social conventions, assimilation of behavioral canons, verbal and non-verbal norms, as well as cultural specifics is a necessary and important part of the pedagogical process of developing language competence, which consists of the following main components: linguistic, language, socio-cultural, and strategic competencies.
- 2) learning a foreign language should be based on familiarizing students with the culture of its speakers, with the norms and values accepted in the community of native speakers' language speakers;
- 3) the experience of direct communication with the culture of the language being studied is a necessary organizational condition that contributes to the effective formation of students' sociocultural competence;
- 4) the pedagogically and methodologically sound use of such linguistic and didactic methods can significantly contribute to effective German language learning.

These methods include reading, listening to audio materials, and watching videos, programs, and films in German that contain information about the culture of Germany, Austria, and other German-speaking countries. Additional benefits can be achieved by discussing the information with students after using these methods, which will help to develop students' sociocultural competence.

Reading is a receptive form of language communication and consists of two interrelated and inseparable processes: reading technique and comprehension of the text being read. In recent years, a positive trend has intensified toward practical mastery of a foreign language in the form of speaking training. However, reading does not lose its significance, because, unlike oral speech, it has unlimited opportunities to enrich

a specialist with new information. In their professional activities, future teachers may often be faced with the need to read methodological manuals, operating instructions, newspaper articles, annotations, etc., as well as with the need to make the right choice according to the degree of usefulness of this information for themselves.

In foreign language teaching methods, there is a type of reading called informative reading. It is aimed at acquiring, processing, and using information from the text. Informative reading has specific features that are characteristic of professionally oriented reading. In particular, it is subordinated to professional activities and depends on professional vocabulary, includes the functions of professional written communication, and aims to obtain professionally relevant information and the intended use of this information.

In this case, communication, namely the dialog between the text and the reader, is professionalized, becoming a dialog between specialists in a particular field of knowledge. The reader, interpreting the text, comments and evaluates it under his or her professional associations, agreeing or disagreeing with the train of thought outlined in it, replenishes his or her knowledge, joins the achievements in the field of interest, and can generate his or her text. According to this provision, there are three main subtypes of informative reading: evaluative-informative, appropriative-informative, and creative-informative.

Appropriative and informative reading is accompanied by making various notes that reflect the permanent content of the text (or its' invariant).

Creative and informative reading usually involves the second reading of the source and one's notes to formulate and articulate one's thoughts (orally or in writing) about the information presented by the author. Work on professionally oriented texts can be divided into three stages: before reading the text, during reading, and after reading.

Pre-textual level of work on the text – students are asked to familiarize themselves with the keywords of the text, translate the title, and identify the topic (*read the title and decide what the text is about; by what word in the title did you realize that this information is about...*). Then students do training exercises to eliminate lexical and grammatical difficulties in the text.

The post-textual stage includes creative exercises aimed at developing the following skills:

- to extract the necessary information from the text;
- to summarize the information received;
- to correlate individual semantic segments of the text;
- to draw conclusions based on the information received;
- to evaluate the content of a processed passage;
- to interpret the text.

Experience has shown that teaching reading professionally oriented texts based on a system of exercises at the pre-textual and post-textual stages helps to intensify the process of learning a foreign language. From the didactic point of view, the system of exercises in informative reading should prepare students' thinking for the transition from the automated performance of speech actions at the sentence level to complex thinking activities while reading professionally oriented texts in a foreign language.

It is quite obvious that the effectiveness of informative reading and, accordingly, the effectiveness of the mediated professional dialog between the text and the reader, as well as between the reader and the author, depend on the development of specific interactive skills of complex foreign language professional-oriented reading. In this regard, the process of teaching informative reading in a language or pedagogical university should be aimed at developing the following skills in future engineers-pedagogues: evaluating

professional information, assigning the extracted information, and creating a new product. One of the conditions for the success of such an educational process can be competently selected authentic professional material, educational materials created on its basis, and authentic tasks related to professional or scientific activities. An example of an assignment that can contribute to the comprehensive development of the above skills is the preparation of an essay on a specific topic. Within the framework of a certain professional topic, students are encouraged to choose a more specific topic following their professional and academic interests, for example, related to the preparation of a term paper, diploma, project, or laboratory work. To write an essay, students need to select at least three different genres of authentic sources in a foreign language. These sources can be articles in scientific and technical journals, brochures, reports, reference materials of various kinds, textbooks, manuals, programs, collections of tasks and exercises, documentation related to the field of technical or industrial application, contracts, trade catalogs, advertising materials, reference books, and other types of information resources. Furthermore, the selected sources must be as authentic as possible and relevant to the topic of the work. This approach to selecting sources will allow students not only to deepen their knowledge in a professional field but also to improve their foreign language skills.

The first stage involves students searching for meaningful information from a variety of sources in a foreign language. When selecting materials, students compare them with their existing knowledge of the subject content and evaluate the importance, usefulness, and novelty of the information they contain. They also determine in advance the possibilities of using this information in their work, per the task.

The second stage involves students making notes on the content of the text of various types or highlighting information of professional importance in the text itself to use in their work.

In the third stage, students create a new logically connected product, where it is important to formulate their thoughts about the information presented by the authors. At this stage, it is important to take into account the task assigned to students to write an essay and to be able to use the information collected during the search process to create a high-quality product.

One of the promising areas of improving the effectiveness of the formation of socio-cultural competence of future bachelors of German is an integrative approach to developing training materials, which is the basis of interdisciplinary integration. Following the development of the theory and practice of the integrative approach, scientists and practitioners are introducing a system of integrative subject-based learning, outlining the principles of interdisciplinary integration, namely:

- orientation of training to the current requirements of social development;
- formation of a comprehensive system of knowledge, a unified picture of the world, and a scientific worldview;
- combining integrative and differentiated approaches to learning;
- continuity of education and its access to the level of professional education.

Currently, interdisciplinary integration is understood as the mutual penetration of the content of various academic disciplines and the creation of a single educational socio-cultural environment through using innovative pedagogical methods, tools and organizational forms of education. They form the basis of interactive technologies and ensure the formation of a high level of socio-cultural competence of future German bachelors. The holistic, integrative nature of forming the socio-cultural competence of future bachelors of German on the basis of interdisciplinary integration is also determined by the technological approach to mastering academic disciplines. This involves determining the expected learning outcomes determined by its goals and is based on the substantiation of the content of learning, the choice of a pedagogically relevant structure (sequence) of learning the content, means of achievement, control of time and level of students' mastery of the relevant phenomenon under consideration. The selected scientific

approaches in the context of the study are implemented in a comprehensive manner, complemented and constitute the methodological basis of scientific research.

## 5. Discussion

The intensification of international relations in the context of integration and globalization has increased the general interest in learning foreign languages, including German, as a means of international communication (Onishchuk et al., 2020). It is widely acknowledged by leading scholars that high-quality language preparation goes beyond basic vocabulary and grammar skills and extends to understanding the cultural uniqueness, traditions, customs, creative heritage, and mentality of native speakers (Bahlai et al., 2019; Dvorianchykova et al., 2022; Mykytenko et al., 2022). The relevance of integrating linguistic and socio-cultural competence lies in the need to develop foreign intercultural communicative competence, which is a practical goal of foreign language teaching and learning for students in philology and pedagogical specialties (Karpiuk, 2020). It is important to establish a correlation between foreign language communicative competence and foreign language intercultural communicative competence. Foreign language communicative competence, encompassing linguistic and speech competencies, has long been recognized as a goal in language education, supported by the communicative approach. However, in order to fully engage in intercultural communication, learners need to develop additional competencies beyond language skills. This includes educational and strategic competence, as well as linguistic and sociocultural competence.

## 6. Conclusion

The research conducted in this area is not a final solution to the problem of developing students' language competence when learning German as a foreign language at a university. However, in our opinion, further research can be aimed at selecting and structuring the content of sociocultural competence, as well as at developing teaching methods and pedagogical tools necessary for students to master it while learning German in a university context. This may contribute to further improvement of the process of learning a foreign language at HEIs and the development of student's language competence.

Thus, informative reading contributes to the improvement of communicative competence. It allows specialists to meet their professional informative needs and acquire knowledge independently with the help of a foreign language, thus contributing to the formation of integral professional and personal socio-cultural and linguistic competence in the future. Therefore, developing skills in informative reading is important for both improving communicative competence and meeting the professional needs of specialists. It can help individuals acquire knowledge independently in a foreign language, leading to the formation of well-rounded sociocultural and linguistic competence.

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## Professional training of future social workers in the face of instability

### Formación profesional de los futuros trabajadores sociales ante la inestabilidad

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#### Abstract

The training of social workers is mainly carried out in the system of higher professional education. The educational standard has yet to be finalized - it contains professional and general cultural competencies but fails to formulate qualitative characteristics that would indicate the criteria for their assessment. At the same time, most countries that are members of the International Association of Schools of Social Work (IASSW) impose a whole system of specific requirements on applicants for social work training. The objective of this study is to address the scientific problem of developing a model for the continuous education system for social workers and analyze the quality of their training. The study employs a mixed-methods approach, combining quantitative and qualitative research methods. The study highlights the increased relevance and demand for social workers in addressing global problems. The identified challenges in social development, including social inequality, political instability, and environmental issues, underscore



the importance of well-trained social workers to tackle these complex social issues effectively. The study's results contribute to the development of a model for continuous education in social work, with a focus on addressing the gaps in training and competencies. The findings provide evidence-based recommendations for improving the quality of social workers' training, ultimately enhancing their ability to address the diverse and evolving needs of individuals and communities in the face of global challenges.

**Keywords:** social work, quality of training, quality classes, criteria for measurement, competencies, continuous education.

## **Resumen**

La formación de los trabajadores sociales se realiza principalmente en el sistema de educación profesional superior. El estándar educativo aún no se ha finalizado: contiene competencias profesionales y culturales generales, pero no formula características cualitativas que indiquen los criterios para su evaluación. Al mismo tiempo, la mayoría de los países que son miembros de la Asociación Internacional de Escuelas de Trabajo Social (IASSW) imponen todo un sistema de requisitos específicos a los solicitantes de formación en trabajo social. El objetivo de este estudio es abordar el problema científico de desarrollar un modelo para el sistema de educación continua para trabajadores sociales y analizar la calidad de su formación. El estudio emplea un enfoque de métodos mixtos, combinando métodos de investigación cuantitativos y cualitativos. El estudio destaca la creciente relevancia y demanda de trabajadores sociales para abordar problemas globales. Los desafíos identificados en el desarrollo social, incluida la desigualdad social, la inestabilidad política y los problemas ambientales, subrayan la importancia de trabajadores sociales bien capacitados para abordar estos complejos problemas sociales de manera efectiva. Los resultados del estudio contribuyen al desarrollo de un modelo de educación continua en trabajo social, con foco en el abordaje de las brechas de formación y competencias. Los hallazgos brindan recomendaciones basadas en evidencia para mejorar la calidad de la capacitación de los trabajadores sociales y, en última instancia, mejorar su capacidad para abordar las necesidades diversas y cambiantes de las personas y las comunidades frente a los desafíos globales.

**Palabras clave:** trabajo social, calidad de la formación, clases de calidad, criterios de medición, competencias, educación continua.

## **1. Introduction**

Social workers are part of various political, economic, and social structures. The guarantee of their successful relationships with their environment, individuals, and people from all social backgrounds is the desire to build professional and interpersonal relationships on a constructive basis and the ability to regulate their professional behavior in various situations. The basis of specialists' professional activity is considered to be a moral activity, which is revealed through the system of values, the principles of virtue, and goodness in behavior, which serve as the main factor. When it comes to social work, professional morality, and ethics have a special meaning. The social worker must understand and cherish morality, understand it, and clearly distinguish the qualities of kindness and indifference in their relations with different categories of clients. Regarding social work as a professional activity, morality and ethics are interpreted in the same absolute sense.

At the same time, social work ethics is a relatively independent branch of modern science. It is caused by the modernization of state social institutions, the growing need for personal spiritual growth, and the development of the social work institution. Thus, the effectiveness of social workers' analytical and planning, advocacy, mediation, and educational activities largely depends on their level of professional ethics. Moreover, the formation of professional ethics affects the system of future-oriented thinking, i.e.,

their competence, which is reflected in the recommendations of the European Parliament and the European Council.

This article aims to study the professional training of future social workers in the face of instability.

## 2. Theoretical background

The escalation of global humanity's problems has led to contradictions in social development. This situation requires the professional intervention of specially trained people such as social workers. The professional activity of social workers depends on the quality of their training in the continuous education system. Addressing this issue involves studying the theoretical approaches of Ukrainian scholars who reveal the historical aspects of creating a system of training social work specialists, the quality of training, and the criteria for measuring competence in the system of continuous training of social workers. This article is theoretical, as it involves searching for scientific approaches and determining the prospects for their experimental confirmation.

The increasing attention to social work in the world community is now caused by the escalation of humanity's global problems in the environmental, demographic, and communication spheres, which cause contradictions in social development (Yaksa, 2008; Chubuk, 2008; Chobitko, 2005; Khoruzha, 2004; Falko & Konovalova, 2012; Turkot, 2011; Torgan, 2011; Patik, 2015; Ortynskiy, 2009; Lukianchuk, 2015; Lozovetska, 2008; Varha, 2016; Ryazantsev et al., 2020; Miller, 2010; Howkins & Ewens, A., 1999; Harrison, N., Davies, S., Harris, R. & Waller R., 2018).

These include the lack of social and cultural security, political instability, devaluation of human life, high rates of social inequality, which undoubtedly affects the social well-being of individuals and social stratification of society, the emergence of social conflicts, a decline in the decent standard of living of socially vulnerable groups, and a decrease in the level of social security. Therefore, it requires the professional intervention of social workers, who are specially trained for this.

First, the state needs social workers to provide qualified assistance, relieve social tension, and help people survive in a changing world. Secondly, there is a need to improve the professional training of social workers since social services are staffed mainly by specialists with specialized education.

On the one hand, the issue of theoretical and practical training for bachelors and masters in social work is closely related to solving the most critical and acute social problems. On the other hand, it is necessary to develop the content of this training, strengthen its methodology, and create a base of innovative teaching technologies. Currently, multi-level training of social workers in higher and secondary education is being developed according to new educational standards.

Providing high-quality training for social workers requires continuous professional education, a subject of interest for scientific research. Many national scientists have been engaged in research in the field of continuous professional education over time.

Scientists define continuous vocational education as the constant development and self-development of a personality for successful professional self-determination and self-realization in a modern society characterized by instability and uncertainty in the labor market. The subject of continuous professional education is understood as a person capable of conscious self-regulation of one's activities for continuous development and personal self-development. At the same time, conscious self-regulation of activity is correlated with setting goals related as follows:

- professional self-determination and self-realization;

- planning and programming of their achievement;
- the ability to consider significant external and internal conditions,
- evaluating results;
- adjusting specialists' activity to achieve subjectively acceptable results.

Continuous education implies the continuity of all system structural elements and mutual complementarity of different forms and types of learning. Continuous education can be seen as a fundamental principle of building a new education model. Integrity serves as a system-forming factor.

One of the main principles of continuous education is the principle of diversification, which involves expanding the functions and diversity of professional educational programs, educational forms, methods, and types of educational institutions. The diversification is considered an effective professional pedagogical system.

The notion of continuous education, including vocational education, can be considered from three main components (subjects):

- Firstly, continuity means that a person always studies, either in educational institutions or through self-education.
- Secondly, continuity is characterized by the consistency of educational activity content during the transition from one type of activity to another, from one life stage to another.
- Thirdly, continuity is associated with a particular network of educational institutions that create the necessary and sufficient space for educational services to meet various educational needs.

Social work requires creating an education system with a continuous cycle of knowledge improvement. Therefore, continuous education should become the most essential component of a comprehensive education system for social workers, making education genuinely constant.

### **3. Methods**

During the course of this research, there was employed several general scientific methods to investigate the professional training of future social workers in the face of instability. One of the methods used was the comparative method, which allowed them to examine and compare different approaches to social work training in various contexts.

There was also utilized the correlative method, which involved exploring the relationships between variables related to social work training and the impact of instability. By examining correlations, there was identify factors that may influence the effectiveness of training programs in preparing social workers to navigate unstable environments successfully. This method helped uncover potential associations and patterns that can contribute to the development of targeted interventions and support systems.

Furthermore, there was employed the analytical method to critically analyse and interpret data gathered from various sources. This involved systematically examining the information collected and applying logical reasoning to draw meaningful conclusions. Through the analytical method, there was identify key themes, trends, and insights related to the training needs and competencies of social workers operating in unstable conditions. By examining the historical context of social work and the evolution of training practices, there was gained a deeper understanding of how social work education has responded to previous periods of instability. This historical perspective provided valuable insights into the challenges faced by social workers in different eras and the strategies that have proven effective in equipping them with the necessary skills and knowledge.

By employing these general scientific methods—comparative, correlative, analytical, and historical—there was able to conduct a comprehensive investigation into the professional training of future social workers in the face of instability. These methods facilitated a systematic and rigorous examination of the topic, enabling to generate valuable findings and recommendations to enhance the preparation and support provided to social workers operating in challenging and unpredictable environments.

#### 4. Results

The development of social work as a professional activity leads to a new paradigm of social worker training, which defines it as the main subject of professional activity in the social sphere. Furthermore, it puts forward a system of requirements for the qualifications as well as moral and ethical qualities of a specialist.

According to international experience, all countries have a strict selection process for the social worker profession. The general conditions for all applicants are high grades in school subjects, solid and in-depth knowledge of the subjects covered by the chosen profession, physical and emotional stability, social maturity, intelligence level based on hearing, vision, and speech tests, moral and personal qualities of the applicant, approval of the admission committee and recommendations of the student counsellor. Anyone who passes the entry exams can obtain this specialty (Communiqué of the Conference of European Ministers Responsible for Higher Education, 2009).

There needs to be more than a good attitude toward people to be a highly qualified social worker. In addition, a person needs to have the necessary and sufficient professional competencies, as compassion has to be effective. Therefore, the professional training of social workers requires identifying the specifics of their personal and functional qualities.

The conceptual paradigm for forming and developing the social workers' training system can be the idea of training a highly professional specialist who can find acceptable forms of response that meet the changing social environment.

As professional social workers, to achieve their goals and fulfil their functions, they require special knowledge and practical skills, a wide range of competencies that will help them ensure the social functioning of their clients.

The analysis of the education quality category, which is actively considered in the modern pedagogical literature, shows that it is a system of interrelated components, including education models, content and structure of education, properties, and qualities of a personality demanded by society.

Education quality is a description of the education system that reflects the degree to which the actual educational results meet regulatory requirements, as well as social and personal expectations.

In this sense, high-quality education should enable each person to receive a full-fledged continuous education appropriate in full-time, part-time, or distance learning.

The quality of social workers' training can be assessed in two ways: by evaluating the quality of students' mastery of the main educational programs and by determining the educational process organization at the department, faculty, and university levels that provide their training. The assessment of new-generation students' training quality is carried out within the framework of a competency-based approach. It means that the general and professional competence degree is assessed rather than the qualification level. Therefore, the new Standard for social work specialty includes two main groups of competencies: general cultural, and professional.

Future social workers' training quality cannot depend exclusively on the mastery level of the disciplines provided for in the curriculum. It should include the direct formation of professional competence and the environment in which students are taught. A competent, efficient organization of the educational process following the academic standard for the specialty, considering the specifics of a particular university, will allow the integration of the national system of social worker training into the European one and increase the level of professional and overall cultural literacy of graduates.

Among the components of education quality, the following elements can be distinguished:

- competence
- knowledge and experience of teachers;
- compliance of universities with the requirements of national and regional standards;
- educational standards and curricula that define the scope of knowledge required for student learning;
- provision of the educational process with methodological, educational, and scientific literature, new generation textbooks, and the latest technical education means.

Development of educational programs in social work based on the principles of achieving adequate competence is becoming very important in the context of educational space globalization, the formation of the European Higher Education Area, and the creation of a national two-level higher education system (bachelor's degree - 4 years of training and master's degree - 2 years).

The educational program should be based on clear standards that can be used to evaluate both the training quality and the practical activities of a specialist to form and develop social work professionals whose qualifications will be more relevant to social changes and the needs of modern social policy. The competency-based approach to curriculum planning is widely used by foreign schools of social work today as a fundamentally new technology that is supposed to link formal training with practical tasks (Altbach et. al., 2009).

Globally, there is a growing need for modern, competent social work professionals based on national standards and international universality indicators. Furthermore, it leads to the understanding by the national pedagogical community of the need to adopt a competency-based approach as a strategy for developing a continuous social education system.

This approach emphasizes not the student's awareness but the ability to solve problems that arise during the cognition and explanation of reality phenomena through:

- mastering modern technology and equipment;
- human relationships, ethical norms, and evaluation of one's actions;
- practical life in the performance of social roles;
- legal norms and administrative structures;
- consumer and aesthetic values;
- mastering the profession at the university;
- the ability to navigate the labor market;
- reflecting on their own life problems;
- self-organization, choosing a style and lifestyle;
- resolution of conflicts.

Only some people are capable of carrying out social activities. The main determining factor here is the candidate's system of values, ultimately determining their professional suitability and effectiveness in practice. Many who intend to become specialists in this field may find significant differences in views

between their attitudes and social work's value system as a profession and a vocation. In this case, they will have to devote themselves to some other activity.

While many studies have been devoted to the criteria for measuring the professional competencies of a social worker, the issue of measuring moral competencies has been studied insufficiently. However, it is one of the key components of the professional activity of social workers, so it is also a research challenge at the moment (Caravello et al., 2005).

From the foregoing, the authors conclude that a professional standard allows for assessing and improving the professionalism of social workers and enhancing their motivation, which ultimately means increased productivity and better performance. Thus, the mechanism of developing and implementing a professional standard can be used to assess the quality of social workers' professional training.

## 5. Discussion

International experience suggests that countries implement rigorous selection processes for individuals aspiring to become social workers (Kruk et al., 2018). Criteria such as academic excellence, emotional and physical stability, social maturity, and moral qualities are considered during the selection process. These requirements aim to ensure that social workers possess the necessary attributes to excel in their profession. Being compassionate alone is not sufficient for social workers to be highly qualified. Professional training should focus on developing a wide range of competencies that enable effective and impactful social work (Asakura et al., 2021). These competencies encompass knowledge, practical skills, and the ability to adapt to the changing social environment. The training should also address the personal and functional qualities specific to social work.

In response to globalization and the changing educational landscape, the development of social work educational programs based on achieving adequate competencies becomes crucial (Horishna, 2017). The competency-based approach emphasizes the practical application of knowledge and the ability to solve problems. It links formal training with practical tasks, aligning social work education with the demands of the profession and social policy. While professional competencies are extensively studied, the measurement of moral competencies in social work remains an ongoing challenge. Moral competencies are a vital component of social work practice and should be incorporated into training programs (Dutta et al., 2022). The values and ethics of social work as a profession and vocation play a significant role in determining professional suitability and effectiveness in practice.

So, the professional training of social workers requires a comprehensive approach that encompasses rigorous selection processes, the development of diverse competencies, ensuring education quality, adopting a competency-based approach, incorporating moral competencies, and implementing professional standards. By addressing these aspects, the training of social workers can effectively meet the demands of the profession, respond to social changes, and promote the well-being of individuals and communities.

## 6. Conclusion

In general, nowadays, the training of social workers is predominantly carried out within the higher professional education system. However, attention is drawn to the incompleteness of the educational standard: while the standard specifies professional and general cultural competencies, the qualitative characteristics indicating the criteria for their assessment still need to be formulated.

At the same time, most countries that are members of the International Association of Schools of Social Work impose a set of specific requirements on candidates for social work education, including moral and personal qualities, which contribute to better preparation, retraining, and professional development of

specialists. It is related to different student selection approaches, educational standards, and learning conditions.

Despite the abundance of studies dedicated to the system of continuous education in the training of highly qualified professionals, the model of continuous education for social workers is not well-established, and it is not currently possible to fully analyse the quality of social worker training in the framework of continuous education. It is a significant scientific problem that requires its solution as highly relevant and promising.

Therefore, the updating and modernization of education in the 21st century will contribute to orienting future professionals towards acquiring humanistic values and adhering to them in everyday life and professional activities. It will lead to the formation of competent professionals in various professional fields, including social work. Social workers dealing with maladjusted and marginalized individuals, as well as internally displaced persons, must be able to skilfully resolve and act successfully and effectively in extreme life situations.

Currently, in Ukraine, the professional training of such specialists is carried out in various types of higher educational institutions, including universities, fulfilling academic tasks aimed at the purposeful and systematic formation of students' readiness for professional activities. An ethical approach based on a system of values, the foundations of virtue and good behavior, i.e., professional morality and ethics, is a basis for their work. Thus, an essential feature of preparing future social workers is the implementation of a professional-ethical orientation for the humanization of both the process of forming professionals and their practical target orientation. Therefore, the moral-ethical component of professional training plays a dominant role in shaping the professional competence of future social workers.

It is known that social workers belong to various societal structures -political, economic, and social. The guarantee of their successful relationships with the environment, individuals, and representatives of all social strata lies in the willingness to build professional and interpersonal relationships on a constructive basis and the ability to regulate their own professional behavior in various situations. The basis of specialists' professional activities is considered moral activity, manifested through a system of values and the foundations of virtues and goodness in behavior, serving as a fundamental factor. When it comes to social work, particular emphasis is placed on professional morality and ethics. The social worker must understand and cultivate morality, comprehend it, and clearly distinguish qualities of goodness and indifference in relationships with different categories of clients. Regarding social work as a professional activity, morality and ethics are interpreted in the same absolute sense.

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# Components of professional competence and innovative professional activity of an hei teacher

## Componentes de la competencia profesional y la actividad profesional innovadora de un docente de IES

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### Abstract

The issue of professional competence and innovative activity of teachers in higher education is of great relevance in the current stage. This significance arises primarily from the evolving perception of teachers as participants in the educational process. There is a growing perspective that teachers are not solely dominant in organizing the educational process but rather assume a role akin to that of administrators. Consequently, the question of professional competence and innovative activity becomes crucial, as the changing perception of the teacher's role also alters the understanding of the specific qualities required to effectively engage with students. This study aims to elucidate the constituents of professional competence and innovative professional activity within the context of higher education teachers. The object of this research encompasses the components inherent in the professional activity of teachers within higher educational institutions. study employed various research methods, including description, analysis and synthesis, comparison, and generalization. This study investigates the essence of the concept of "competence" and juxtaposes its meaning with that of "professional competence." The elucidation of the essential nature of professional competence for teachers is conducted. Furthermore, the research comprehensively analyzes the structural segmentation of a teacher's professional competence into distinct parts, describes the categorization of competence into groups, and provides a summary of existing

classifications on the components of a teacher's professional competence. Simultaneously, this study examines the concept of "innovative professional activity of teachers in higher education institutions." To achieve this, the phenomenon is expounded upon through a comprehensive set of interconnected components that unveil the foundation of innovation in fulfilling the teacher's assigned functions and responsibilities. Moreover, the origins of a teacher's creativity and the requisite conditions for its manifestation are also identified. Within this study, the type of a teacher's activity is determined based on its specific orientation. This categorization enables the identification of essential competencies necessary for the successful execution of each respective activity. Moreover, the significance of individual components in facilitating a teacher's professional engagement is indicated. Additionally, a scheme has been constructed to illustrate the progression of creative thinking development among teachers. This scheme portrays the sequential stages involved in the formation of creative thinking. Consequently, it can be inferred that a teacher's creative thinking evolves in logical conjunction with other components, thereby facilitating the cultivation of their innovative domain.

The abstract describes the main results of the research and defines the sequence of consideration of the basic issues of the work. Methods such as description, analysis and synthesis, comparison, and generalization became the methodological basis of the research. They were applied to determine the main aspects of the work and were used to formulate and implement the tasks of the article. At the same time, according to the conducted research, competence is a set of qualities that are characteristic of a teacher and help him to carry out his work. In particular, it is determined that the competencies of a teacher of a higher education institution are Motivational; Activity; Cognitive; Emotional; Volitional, Their combination allows the teacher to carry out his activities effectively and with benefit for pupils. At the same time, it was established that competence is special and general. It was determined that the steps of professional competence formation are the following stages: Stage 1 - imitation and copying; Stage 2 - creative imitation; Stage 3 - imitative creativity; Stage 4 - genuine creativity. Each stage involves the teacher's use of the knowledge acquired at the previous stage and their correct application. Therefore, it was established that the formation of professional competence is a long-term process that requires considerable knowledge and effort. The teacher must have experience of behavior in various situations and know the psychology of students in order to make timely decisions. At the same time, it was established that it is important to have a harmonious combination of different qualities, which allows you to correctly assess the situation and present yourself as a professional and at the same time as a person who can teach moral qualities to others.

**Keywords:** teacher, higher school, innovative activity, competence, components, professional competence.

## Resumen

El tema de la competencia profesional y la actividad innovadora de los profesores de educación superior es de gran relevancia en la etapa actual. Este significado se deriva principalmente de la evolución de la percepción de los docentes como participantes en el proceso educativo. Existe una perspectiva creciente de que los maestros no solo son dominantes en la organización del proceso educativo, sino que asumen un papel similar al de los administradores. En consecuencia, el tema de la competencia profesional y la actividad innovadora se vuelve crucial, ya que las percepciones cambiantes del rol del docente también alteran la comprensión de las cualidades específicas necesarias para relacionarse efectivamente con los estudiantes. Este estudio tiene como objetivo dilucidar los constituyentes de la competencia profesional y la actividad profesional innovadora en el contexto de los profesores de educación superior. El objeto de esta investigación engloba los componentes inherentes a la actividad profesional de los docentes en instituciones de educación superior. estudio empleó varios métodos de investigación, incluyendo descripción, análisis y síntesis, comparación y generalización. Este estudio investiga la esencia del concepto de "competencia" y yuxtapone su significado con el de "competencia profesional". Se lleva a cabo la elucidación de la naturaleza esencial de la competencia profesional para los docentes. Además, la

investigación analiza exhaustivamente la segmentación estructural de la competencia profesional de un docente en distintas partes, describe la categorización de la competencia en grupos y proporciona un resumen de las clasificaciones existentes de los componentes de la competencia profesional de un docente. Simultáneamente, este estudio analiza el concepto de "actividad profesional innovadora de los docentes en instituciones de educación superior". Para lograrlo, se expone el fenómeno a través de un conjunto integral de componentes interconectados que revelan las bases de la innovación en el cumplimiento de los roles y responsabilidades asignadas al docente. Además, también se identifican los orígenes de la creatividad del docente y las condiciones necesarias para su manifestación. En este estudio se determina el tipo de actividad del docente en función de su orientación específica. Esta categorización permite identificar las competencias esenciales necesarias para la ejecución exitosa de cada una de las respectivas actividades. Además, se indica la importancia de los componentes individuales para facilitar la participación profesional del docente. Además, se construyó un esquema para ilustrar la progresión del desarrollo del pensamiento creativo entre los profesores. Este esquema describe las etapas secuenciales involucradas en la formación del pensamiento creativo. En consecuencia, se puede inferir que el pensamiento creativo de un docente evoluciona en conjunción lógica con otros componentes, facilitando así el cultivo de su maestría innovadora.

**Palabras clave:** docente, educación superior, actividad innovadora, competencia, componentes, competencia profesional.

## 1. Introduction

The significance of teachers' professional competence is paramount in today's context, as they hold a pivotal role in shaping society and fostering the development of youth as active participants in education. Furthermore, teachers' pedagogical potential enables them to create novel information and pedagogical resources, thereby optimizing the educational process. It is important to acknowledge that the attainment of professional competence by teachers necessitates the utilization of competencies that facilitate both the instructional and nurturing aspects of teaching, as well as the cultivation of principles about higher education and self-realization.

Given the increasing importance of information and communication technologies, teacher competencies are intricately linked to emerging learning systems and programs that enable the effective utilization of the information space. Moreover, the impact of information technologies on the innovativeness of teachers' activities is noteworthy.

The objective of this study is to elucidate the constituent elements encompassing professional competence and innovative professional activity within the realm of HEI teachers.

Research objectives. Aligned with the study's purpose, the specific objectives are as follows:

1. To provide clear definitions of the concepts of "competence," "professional competence," and "innovation activity."
2. To identify and delineate the constituent components comprising a teacher's professional competence.
3. To characterize the nature and attributes of innovative activity within the context of HEI teachers.

Today, the question of the professional competence of a teacher of secondary education is quite relevant, considering that the requirements for a pedagogue are changing. Today, a teacher is not just a person who teaches students and imparts knowledge, but a person who presents an educational institution at various levels. This is due to the fact that teachers are now actively involved in the scientific and cultural world, as well as in the media space. Therefore, a teacher must possess a significant amount of values and qualities. In addition, now the teacher must be able to use innovative and interactive technologies in work,

have skills in working with computer and presentation equipment, be able to use social networks in pedagogical activities.

## 2. Literature review

It is pertinent to note that the exploration of the professional competence of teachers and their involvement in information activities has been investigated by notable researchers in the field. Scholars such as L. Anderson (2020), F. Betoret (2020), N. Brahar (2019), M. Golovan (2014), and V. Sayuk (2012), both domestic and foreign, have contributed significantly to this area of study. Their findings suggest that the structure of professional competence exhibits diversity and encompasses various components, with reflection and the psychological and pedagogical aspects being central. Moreover, these scholars argue that the innovation of teaching practices is closely linked to imagination and creativity.

The scientific investigation conducted by M. Golovan (2014, p. 80) focuses on examining the components that constitute the professional competence of a university teacher. In her article titled "Professional competence of a higher education institution teacher," the researcher devotes significant attention to the various elements comprising teacher competence. Notably, she proposes the identification of the motivational component as a fundamental aspect, as it plays a crucial role in providing teachers with the necessary impetus to effectively fulfill their assigned tasks. This component also reflects the intricacies of a teacher's inner world, as motivation encompasses the presence of certain ideals that can be pursued through specific goals.

In his scholarly article titled "Professional competence as a basis for the development of a modern teacher in the system of postgraduate pedagogical education," researcher V. Sayuk (2012, p. 60) elucidates the essential competencies that teachers should cultivate. These competencies encompass the ability to analyze pedagogical situations, search for novel information, and comprehend the psychological aspects of students. Through his research, the scholar substantiates the significance of the design component, highlighting its capacity to effectively convey knowledge to students.

Significant emphasis is placed on the scholarly contribution of O. Khodarchenko (2020, p. 70) in his work titled "Content of professional competence of teachers in higher education institutions of I-II accreditation levels". In this article, the researcher contends that each specialist should possess a distinct set of qualities commensurate with their functional responsibilities. Khodarchenko identifies that teachers in higher education institutions of accreditation levels 1-2 should possess competencies that facilitate effective instructional activities, whereas teachers in institutions of accreditation levels 3-4 should possess competencies tailored for research endeavors.

The scientific literature on this topic encompasses diverse perspectives on the matter of teacher competence. The variation in theories arises from different conceptualizations of the term "competence," as well as considerations such as the teacher's level, duties and functions, and the accreditation level of their educational institution.

Nevertheless, despite the existence of research, the understanding of teacher innovation remains limited. This can be attributed, in part, to the prevailing standardization of modern higher education, which regrettably hampers the full utilization of a creative approach in educational practices.

## 3. Methods

The study employed several research methods, including description, analysis and synthesis, comparison, and generalization. The descriptive method was utilized to present the findings of the research and provide

their characteristics, facilitating the identification of the study's structural foundation. The analysis and synthesis method was applied to assess the current state of research on the problem and analyze relevant scientific literature, enabling the integration of acquired knowledge into a cohesive system. The comparison method was employed to juxtapose various perspectives from researchers regarding the set of teacher competencies and elements of their innovative activity. Finally, the generalization method was utilized to summarize and present the research outcomes.

The method of literary analysis was used for the research. Its essence arises from the fact that the original base of the research was analyzed and, based on the information obtained, the main approaches to the competence of the teacher of higher education were identified. The method of content analysis was also used, during which monitoring of electronic resources dedicated to the issue of teachers' competence was carried out.

#### 4. Results

In the current era, the topic of higher education holds significant relevance, primarily because the individuals responsible for delivering education are oriented towards achieving substantial outcomes that are challenging to attain without the utilization of cutting-edge teaching technologies. Simultaneously, it is crucial to direct attention toward higher education institutions, whose operations have sparked intense debates within society. Additionally, it is noteworthy to emphasize that the matter of teachers' professional competence and their innovative professional activity remains a pressing concern, as there exists considerable deliberation regarding the essential professional competencies teachers must possess to effectively execute the educational process.

It is noteworthy that a universally accepted definition of the term "competence" remains elusive in contemporary discourse. In the majority of scholarly works, competence is interpreted as a collection of distinct human qualities that, when combined, enable efficient and prompt task-solving (Makarenko, 2020, p. 8). Additionally, competence reflects an individual's level of acquired knowledge and preparedness to engage in new activities with a certain proficiency gained through experience. Furthermore, this concept serves as an evaluative category, as its presence does not guarantee an individual's success in tackling intricate problems. Consequently, the essential components of competence encompass practical experience, the ability to apply acquired knowledge, and an awareness of the complexities associated with the given matter (Zhang, 2020, 25, p. 25).

In light of these considerations, professional competence can be described as a collection of qualities that enable an individual to effectively tackle intricate problems while demonstrating their acquired knowledge (Mishchenko, 2016, p. 160). These qualities serve as distinguishing features that allow individuals to manifest themselves as specialists in their respective fields. It is worth noting that professional competence varies across different domains, as the requisite qualities for a specialist in one field may differ from those of a specialist in another. For instance, while knowledge of the law is imperative for a police officer, it may not be mandatory for a teacher (Khodarchenko, 2020, p. 65).

In summary, the professional competence of a university teacher can be defined as a collection of qualities enabling them to address intricate practical challenges encountered within the realm of teaching and educational activities. Traditionally, teacher competencies are categorized into three distinct domains:

Cognitive competence: This pertains to the teacher's knowledge and level of expertise in the subject matter.  
Value competence: This encompasses the moral and ethical values embraced by the teacher.

Activity competence: This entails the application of knowledge in practical teaching settings (Jasman, 2020, p. 28).

The essence of a teacher's professional competence is subject to diverse perspectives within scholarly discourse. Professional competencies enable teachers to achieve more comprehensive self-realization as specialists. Furthermore, they should demonstrate clear and effective action, even in challenging situations that may pose personal difficulties. Professional competencies serve as an indicator of a specialist's level of training and their capacity to effectively address real-world challenges (Wang, 2020, p. 364).

The competencies of a university teacher can be broadly categorized into two groups:

I. General professional competencies: These reflect the qualities necessary to address complex issues within the field of activity as a whole. General professional skills enable teachers to work effectively with diverse student groups and resolve conflicts that may arise among them. These competencies primarily encompass theoretical knowledge and its practical application. Examples of general professional competencies include psychological and pedagogical skills, information literacy, communication abilities, research aptitude, managerial proficiency, educational expertise, and presentation skills (Syahrudin, 2013, p. 144).

Considering the contemporary demands, informational competence assumes considerable significance. It entails the teacher's ability to articulate precise information requests to ensure accurate reflection and to provide students with access to high-quality, reliable information. Additionally, teachers should possess the skill to effectively convey essential information using modern technologies (Toshboeva, 2020, p. 6).

II. Job and professional competence encompass the knowledge and skills specific to a teacher's position. It involves various components, including prognostic, regulatory, control, evaluation, and organizational aspects. This entails demonstrating professional knowledge and applying acquired information effectively in practice, while also exhibiting respect for students, maintaining a positive communication style, fostering a culture of effective communication, and having the motivation and commitment to carry out assigned tasks in a quality manner. Only the integration of these elements enables teachers to effectively fulfill their assigned duties (Foliano, 2020, p. 500).

Respect for students emerges as a prominent factor in the execution of professional activities. Teachers should recognize that students are equal participants in the educational process and deserve to be treated with respect and understanding. However, it is noteworthy that some teachers struggle with perceiving students as equals. They may hold the belief that students lacking a certain level of knowledge are not yet on par with the rest of society, leading to a sense of superiority. This perspective can manifest in the critical treatment of students, assigning lower grades, and using negative language when referring to them (Shyshkina et. al., 2023, p. 400).

A classification of teacher competencies can be identified, encompassing various categories:

Special competencies - referring to specific knowledge and expertise in a particular subject or field.

Social competencies - reflecting an understanding of the social aspect of one's personality and the ability to navigate social contexts effectively.

Personal competencies - involving the expression of individual thoughts and perspectives, characterized by distinctive personal qualities.

Individual competencies - emphasizing self-development within a specific professional domain or specialization (Garira, 2020, p. 11).

A classification based on a different principle reveals the following competencies. Specialized competence - encompasses the knowledge acquired and applied within a specific academic discipline. This competence

not only demonstrates the teacher's knowledge but also their ability to address complex issues. For instance, during a class discussion, if conflicts arise among students, the teacher's role is to create an environment where conflicts can be minimized. One approach is to acknowledge the controversial nature of the topic and emphasize that there is no single perspective on its solution. The teacher can also express their own opinion while highlighting that it is not an authoritative position. This approach can help reduce conflicts among students. For example, when discussing victim behavior, the teacher may indicate that they have their perspective on whether the victim holds any responsibility) (Betoret, 2020, p. 220).

Methodological competence refers to the teacher's possession of a specific set of methods and knowledge that can be applied in the educational process. Teachers must stay updated with the latest technologies to enhance the efficiency and effectiveness of their pedagogical work. Furthermore, the ability to apply acquired knowledge in a high-quality manner during educational activities is of great importance (Proulx, 2020, p. 66).

Psychological and pedagogical competence encompasses the knowledge and skills necessary for a teacher to effectively carry out their duties. It entails understanding the developmental psychology of students, including their emotional and psychological states. The teacher must recognize that students are individuals with their challenges, priorities, and values. They may not always have the same level of enthusiasm for learning as the teacher desires. Additionally, establishing positive relationships with colleagues and other researchers is essential. This allows the teacher to present themselves with dignity and effectively express their perspectives on various matters (Shnejder, 2020 p. 23).

Reflection refers to the significant attention that a teacher devotes to self-analysis and the examination of their values. They may experience feelings of insignificance regarding their work, doubts about their knowledge, or occasional setbacks during the teaching process. Such individuals must understand their motivations for teaching, to ascertain why they are committed to continuing their work with students, and whether it aligns with their intrinsic motives (Brahar, 2019, p. 5).

In essence, based on the aforementioned components, a teacher is required to possess professional knowledge, the ability to apply that knowledge effectively, the capacity to collaborate with other teachers and students, and the aptitude to accurately assess their achievements. The combination of these components necessitates a solid theoretical foundation and practical experience. For instance, when confronted with a conflict among students, a teacher can rely on their theoretical knowledge to respond as a competent educator. Simultaneously, they can draw upon their practical experience to achieve the desired outcome. For instance, if students engage in an argument during a class, the teacher can use their theoretical understanding to explain that any form of physical altercation is strictly prohibited on the university campus. Furthermore, by leveraging their practical knowledge, the teacher can warn the students that failure to comply may result in lowered grades, potentially leading to academic consequences. Although this approach may raise ethical concerns, it is often viewed as the most effective strategy by many teachers (Anderson 2020, p. 25).

It is noteworthy to mention that researcher M. Golovan has identified the following components of professional competence:

- Motivational;
- Activity;
- Cognitive;
- Emotional;
- Volitional (Golovan, 2014, p. 80).

Accordingly, the first component of professional competence reflects the teacher's attitude toward their work. This is evident in their interest in education and training activities, their desire for creative fulfillment, their orientation towards scientific endeavors, their motivation to achieve success, their self-assessment of performance, and their focus on collaboration with colleagues. At this stage, motivation is often defined as both a focus on educational activities and a focus on scientific pursuits. In this context, motivation becomes a factor in choosing between practical teaching activities and engaging in research. The main drivers of motivation, in this case, include factors such as salary levels, conducive communication conditions, and opportunities for innovation. When making this choice, individuals believe that this path enables them to fully realize their potential (Bazeliuk et al., 2021, p. 550).

The innovative professional activity of a higher education teacher can be defined as the "experimental and research activities conducted by pedagogical staff aimed at the development, experimentation, testing, implementation, and application of pedagogical innovations" (Kozak, 2012, p. 50). These definitions emphasize that the innovative professional activity of a higher education teacher is characterized by a creative approach, idea generation, conducting experimental research, and implementing novel approaches in pedagogical practice. As such, a teacher can fulfill various roles in this context, including being an author, developer, researcher, user, and promoter of new pedagogical technologies, theories, and concepts (Caldwell, 2020, p. 13)

Innovative pedagogical activity encompasses interconnected components, both external and internal. The external components include the goal, means of achievement, the object of influence, subjects of activity, and results. The internal components comprise motivation, content, and operations. Similar to any activity, including pedagogical activities, it serves several functions, namely gnostic, design, constructive, communicative, and organizational functions (Marchenko, 2016, p. 30).

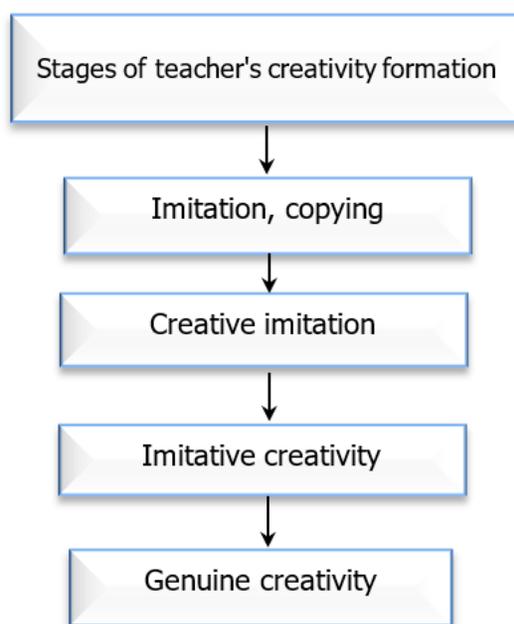
V. Sayuk has identified the functional components that comprise the structure of a teacher's pedagogical activity: gnostic, design, constructive, organizational, and communicative components (Sayuk, 2016, p. 35). These components highlight the specific knowledge and skills that a higher education teacher must possess. The gnostic component pertains to the teacher's capacity to acquire new knowledge, synthesize and systematize it in alignment with pedagogical objectives. It involves analyzing pedagogical situations, engaging in search and heuristic activities, and comprehending the psychological characteristics of students, as well as the intricacies of the educational process. Additionally, it entails evaluating one's pedagogical activities and identifying both positive outcomes and areas for improvement.

The design component of the teacher's pedagogical activity encompasses the capacity to identify long-term and promising goals for education and upbringing, as well as the strategies and methods necessary to achieve them. The constructive component involves the selection and structuring of educational information, as well as the teacher's ability to design activities and guide students' educational and cognitive processes. It also involves monitoring and maintaining a coherent knowledge system. The organizational component pertains to the teacher's aptitude for organizing both student activities and their instructional approach. This includes selecting appropriate methods for presenting information, choosing various types of educational and cognitive activities that align with the system's goals, and effectively managing their actions and behavior during direct interaction with students. The communicative component entails the ability to establish meaningful interactions between the teacher and students to achieve pedagogical objectives. It also involves cultivating pedagogically appropriate relationships and ensuring the overall effectiveness of the pedagogical activities (Sayuk, 2012, p. 60).

L. Kozak has identified several key characteristics of pedagogical creativity. These include a heightened level of social and moral consciousness, a thinking style characterized by search and transformation, well-developed intellectual and logical abilities (such as analysis, justification, explanation, and identification of essential elements), a propensity for problem-oriented thinking, creative imagination, and a well-cultivated

imagination. In addition, specific personal qualities play a crucial role, including a genuine fondness for children, selflessness, courage, willingness to take calculated risks in professional endeavors, determination, curiosity, independence, perseverance, and enthusiasm. Specific motives also drive pedagogical creativity, such as the need for self-realization, the desire for recognition, creative interest, a passion for the creative process and one's work, and the aspiration to achieve maximum effectiveness within the specific context of one's pedagogical practice. Effective communication skills, self-management abilities, and a high level of general culture are also integral to pedagogical creativity (Kozak, 2012, p. 55).

Accordingly, the development of creativity, defined as the ability to generate new ideas and solutions, follows a progression from imitation to independent creation. Initially, individuals imitate experiences, concepts, ideas, individual techniques, forms, and methods as they acquire knowledge and skills. However, over time, the imitative component gradually decreases, giving way to more original and innovative approaches (Skiba, 2014, p. 165). This developmental process can be illustrated schematically through the following stages: Stage 1 - imitation and copying; Stage 2 - creative imitation; Stage 3 - imitative creativity; Stage 4 - genuine creativity. Please refer to Figure 1 for a visual representation of the stages in the formation of a teacher's creativity.



**Figure. 1.** Stages in the formation of a teacher's creativity.

The researcher M. Kunter has identified three sources that contribute to pedagogical creativity. The first source is the social demand for high-quality knowledge, skills, and abilities of students, as well as the comprehensive and harmonious development of their personalities. The second source is the practical activities within the educational domain, where success relies on pedagogical findings and discoveries. This encompasses the realm of initial pedagogical breakthroughs and inventions. The third source of pedagogical creativity is the study of the pedagogical process itself, including its content, forms, and methods. This involves theoretical and experimental endeavors that lead to discoveries, the exploration of best practices, and the development of scientific conclusions (Kunter, 2023, p. 805).

Depending on the implementation of research activity in practical teaching, a teacher can assume two roles: that of a practicing teacher who modernizes their didactic system through research activity, or that of a research teacher who develops new models of pedagogical activity through experimental activity,

testing theoretically developed pedagogical technologies in innovative activity. The research activity of a teacher follows the main stages of scientific and pedagogical research, with the core being the experiment. The level of research is determined by the extent to which it is evidence-based, well-reasoned, and results in a technologically advanced and replicable outcome. If a teacher chooses the path of pedagogical experimentation, they need to acquire proficiency in the methodology of scientific research, which serves as a tool for designing and analyzing pedagogical actions. In each study, it is essential to identify the optimal sequence of search steps based on the nature of the problem, goals, subject, specific research material, research opportunities, and other relevant factors (Ji, 2023, p. 95).

All components of the innovative professional activity of a teacher are interrelated, and the successful completion of each stage contributes to the effective implementation of innovations.

Based on the above, we can present our perspective on the competencies of a university teacher. The first competence is the ability to conduct effective research. A modern teacher should possess the skills to locate the necessary information within a specific timeframe, utilizing various tools available to them. This competence is particularly crucial due to the vast amount of readily available information. Hence, the teacher must be adept at finding relevant materials and utilizing them appropriately. Moreover, in situations where access to certain resources is restricted, such as during emergencies or under specific circumstances, the teacher must demonstrate the ability to leverage alternative resources effectively.

The second competence is interactive engagement. A teacher should possess the ability to present the material in an engaging, accessible, and visually appealing manner, which serves as an indicator of their cultural and intellectual development. Furthermore, interactivity facilitates optimal student involvement in the educational process. Active participation in learning fosters student interest in achieving high academic performance, a commitment to enhancing their knowledge, and the ability to grasp the material swiftly and convey their understanding to the teacher. Additionally, the teacher should demonstrate adaptability and proficiency in utilizing the latest technologies.

The third competence is pedagogical expertise. A university professor should possess a diverse repertoire of contemporary teaching tools and employ effective pedagogical techniques. Simultaneously, they should serve as authority figures for students and utilize their leadership position to evoke respect. This competence holds significant importance as being vested with the role of a teacher, the individual must consistently reaffirm their credibility and expertise.

The fourth competency is psychological aptitude. A teacher must possess the ability to work effectively in diverse educational and learning environments, utilizing their personal qualities solely to foster a positive perception of education. Additionally, they should be skilled in conflict resolution, teaching students to respect one another and the teacher as a whole.

These competencies are rooted in the teacher's innovative activity. They should be cognizant of both their traditional role in educational activities and the contemporary one, as these competencies encompass skills that are characteristic of teachers in a timeless dimension and those that are relevant in the present context. This highlights the significance of exploring the professional competence of teachers as a promising research area, particularly in light of their innovative endeavors in the current stage.

## Discussion

Thus, the issue of teacher competence remains a subject of debate. However, it can be argued that the main aspects of competence have been structured and clarified. Nonetheless, different classifications present varying scopes of competencies and their components. For instance, researcher O. Khodarchenko proposes a division of competency sets for teachers in higher education institutions with accreditation levels

of 1-2 and 3-4. On one hand, this division seems justified, considering that teachers at different levels of institutions bear distinct functional responsibilities, thus requiring different sets of competencies. However, it is important to note that teachers may assume additional functional responsibilities, hold multiple positions, or transition between teaching institutions while still having similar obligations. In such cases, this differentiation may not be suitable or appropriate.

It is noteworthy to mention the research conducted by scholar M. Kunter, where she highlights three sources of teacher innovation. However, in the current context, I believe that a fourth source can also be identified, which is the level of information in Ukraine. The extent of access to new technologies significantly influences the implementation of innovative activities. Moreover, the advancement of information and communication technologies determines the teacher's level of creativity and ability to present material in a creative and accessible manner.

Regarding the stages of innovativeness formation, as outlined by researcher Yu. Skiba, certain questions arise. In my perspective, I propose combining the stages of imitation and creative imitation into a single stage, as they serve a similar purpose. Specifically, during imitation, the teacher already engages in the creative reevaluation of the material and attempts to convey it following the learning environment's conditions.

Therefore, the relationship between problematic issues of professional competence and the practical aspect of implementing this issue is unclear. Thus, the professional competence of a teacher of higher education should correspond to his educational and educational goals. On the other hand, it is difficult to attract a teacher who is knowledgeable in many areas and possesses a large amount of information. The reason for this is primarily the construction of training programs for specialists. So it is difficult to talk about certain competencies here.

## 5. Conclusions

Hence, the professional competence of a teacher encompasses a comprehensive set of knowledge and qualities necessary for their teaching role. Specifically, university teachers should possess a broader range of competencies since they interact with diverse groups of educational stakeholders. It is essential to emphasize that a teacher's innovative activity plays a pivotal role in their active engagement and contribution to the educational system of the state. A teacher's creativity enables them to present educational materials in a comprehensive and high-quality manner, thereby enhancing the overall learning experience.

The article aims to explore the concept of "competence" and its relevance in the professional context. It asserts that professional competence encompasses a collection of inherent qualities and traits specific to individuals in their respective fields of expertise. Furthermore, the professional competence of a teacher is contingent upon the extent of their responsibilities and their accountability to the participants involved in the educational process.

The literature related to the research topic is thoroughly examined, revealing the existence of divergent viewpoints regarding the relationship between a teacher's professional competence and innovation. These conflicting perspectives arise from various studies that have identified distinct components of professional competence, different sources of innovation, and diverse sets of teacher qualities depending on the level of the higher education institution (HEI).

The findings of the study are synthesized, indicating that a teacher's competence encompasses various aspects. It is asserted that teachers should possess information retrieval skills, be adept at utilizing cutting-edge technologies, effectively disseminate knowledge to students, exhibit conflict resolution abilities, and

demonstrate an understanding of student psychology. Notably, innovation is recognized as a distinct component of competence, highlighting the capacity to approach tasks in a creative and inventive manner.

A comparative analysis of scientific perspectives on the topic is conducted. It is noteworthy that this comparison has facilitated the identification of both converging and diverging viewpoints about teacher competence. While there is a considerable degree of consensus regarding the composition of competencies, differences arise concerning the nature of innovation activities.

Based on the findings of the study, it is evident that the issue of translating teacher competencies into practical implementation will continue to be explored. The contemporary teacher is required to possess the adaptability to efficiently organize the educational process. However, it is crucial to consider the feasibility of acquiring all the requisite competencies in times of conflict and under challenging security conditions. Furthermore, the innovative endeavors of teachers within the framework of globalization and integration may also emerge as a novel research area. Consequently, it is noteworthy that the topics highlighted in this paper retain their relevance and are poised to serve as foundations for future investigations.

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## Compensation for moral damage to an employee suffered due to industrial accident or occupational disease

### Indemnización por daño moral a un trabajador sufrido por accidente de trabajo o enfermedad profesional

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#### Abstract

The purpose of the article is to consider the terms for compensation for moral damage to an employee who suffered as a result of an accident at work or an occupational disease. The paper established that compensation for moral damages to an employee under the abovementioned circumstances is possible in the presence of certain conditions provided for by law, which are general for the onset of liability in all cases of infliction of moral damage. All these conditions (presence of the fact of infliction, wrongful behavior of the person causing the damage; causal relationship between wrongful behavior and moral damage; guilt of the perpetrator) are considered in detail, taking into account the specifics of the legal relationship under investigation. The author's definition of moral damage caused to an employee as a result of an accident at work or an occupational disease is proposed.

**Keywords:** moral damage, terms for compensation, accident at work, occupational disease, grounds.

#### Resumen

El objeto del artículo es considerar los términos de la indemnización por el daño moral que sufra el



trabajador a consecuencia de un accidente de trabajo o de una enfermedad profesional. El documento estableció que la compensación por daños morales a un empleado en las circunstancias antes mencionadas es posible en presencia de ciertas condiciones previstas por la ley, que son generales para el inicio de la responsabilidad en todos los casos de infligir daño moral. Todas estas condiciones (presencia del hecho de infligir, comportamiento ilícito de la persona que causa el daño; relación de causalidad entre el comportamiento ilícito y el daño moral; culpabilidad del autor) se consideran en detalle, teniendo en cuenta las especificidades de la relación jurídica que se investiga. Se propone la definición del autor del daño moral causado a un trabajador a consecuencia de un accidente de trabajo o de una enfermedad profesional.

**Palabras clave:** daño moral, plazos de indemnización, accidente de trabajo, enfermedad profesional, causales.

## 1. Introduction

In compliance with the requirements of labor legislation, the employer is obliged to create safe, healthy and proper working conditions for employees, taking into account legal, social, economic, technical and sanitation standards. In turn, employees must strictly adhere to established safety measures, undergo initial, repeated, unscheduled and targeted briefings, training on providing first aid to accident victims, as well as on rules of behavior and actions in case of emergency, fire and natural disasters.

However, in practice, employers often neglect established safety rules, refuse to implement modern protection technologies at the enterprise, fail to conduct occupational safety exercises and necessary internships for their subordinates, which leads to injuries (including moral) and disability of employees, and as well as loss of future full-time work capacity.

The problem of creating harmless and safe working conditions existed in Ukraine long ago, as evidenced by accident statistics: 15 – 20 years ago, about 4 000 people died at work – 1.6 times more than now. The silence of this bitter truth due to the secrecy prevailing in the system was a source of complacency and negligence for those on whom it depended. And today, the probability of injuries and occupational diseases is 5 to 8 times higher than in other industrialized countries of the European Union. The state of labor protection remains unsatisfactory. The problem of industrial injuries is very acute – every year about 50 000 people are injured at work, 1 500 of them die, more than 3 500 thousand get occupational diseases. 2.5 – 3 million man-days are lost annually due to incapacity for work, the average severity of each injury reaches 25 man-days of incapacity for work. However, even these indicators do not give a sufficiently objective picture, since we should not forget that we have a systematic decline in production (Zyhmunt, 2020).

Taking into account the relevance of the chosen topic and the need to solve the problems that have arisen within this issue, we consider it necessary to examine the conditions for compensation of moral damage to an employee who suffered as a result of an accident at work or an occupational disease, and the features of the former.

## 2. Methodology

A number of general scientific and special methods of cognition were applied for the comprehensive disclosure of the raised issues, the achievement of an objective scientific result and the formulation of relevant conclusions and recommendations. The basis for scientific research was the dialectical method, which contributed to a comprehensive study of the terms of compensation for moral damage caused to an employee as a result of an accident at work and professional diseases in their interconnection and interdependence, which made it possible to reveal the current state of the problem under consideration.

Functional method came in handy when clarifying scientific and legislative approaches to determining the conditions for compensation for moral damage under such circumstances.

Formal and logical method was chosen in the process of critical analysis of the current labor legislation in matters related to the legal regulation of establishing the terms for compensation moral damage caused to an employee.

Analytical method helped to conduct the research of the relevant judicial practice as an empirical basis for the study.

Logical method was applied when analyzing scientific views on the concept of moral damage caused to an employee due to an accident at work or an occupational disease.

The method of legal abstraction was helpful when formulating the author's definition of the abovementioned concept.

Hermeneutic method was used in the course of consideration of domestic legislation governing the problem raised.

Some other scientific methods and techniques were also reflected in the dissertation with the aim of deepening the disclosure of the raised issues.

### 3. Literature Review

Unfortunately, this topic has not been throughout studied in modern Ukraine; currently, there are only two monographs on the issue of compensation for moral damage caused by violations of labor rights: by Chernadchuk, V. "Compensation for moral damage in case of violation of labor rights (2001) and Soroka, O. "Compensation for moral damage resulting from accidents and occupational diseases" (2021).

The first one investigated the content and the definition of the concept of moral damage caused by the violation of labor rights, conducted the classification of moral damage, considered the criteria for determining the amount of compensation for moral damage caused by the violation of labor rights. By moral damage caused by the violation of labor rights, the author understands losses of a non-property nature that arose as a result of emotional, mental or physical suffering caused by the violation of legal labor rights by illegal acts or omission on the part of the owner or the authorized body, which lead to humiliation of professional honor, dignity, labor reputation; damage to health; disruption of normal life ties due to the impossibility of extending active public life; violation of communication with surrounding people; forced changes or restrictions in the choice of employment, usual circle of communication and other negative consequences.

The second one revealed theoretical and applied approaches to calculating the monetary equivalent of moral damage caused by an employee as a result of an accident at work or an occupational disease; found out the essence of moral damage caused under such circumstances; developed the methodology for determining the amount of monetary compensation for moral damage; revealed the peculiarities of the conditions for compensation of moral damage caused to the employee as a result of an accident at work or an occupational disease; established the procedure for collecting compensation for moral damage.

As one can see, an extremely limited number of works are devoted to the issue of compensation for moral damage caused to the employee, especially in terms of identifying the conditions for the onset of employer's liability, which led to the urgency of our research.

#### 4. Results and Discussion

In accordance with the rules of Article 237-1 of the Labor Code of Ukraine (Law of Ukraine No. 322-VIII, 1971), compensation by the employer for moral damage to the employee is carried out in the event that the violation of his (her) legal rights, including as a result of discrimination, mobbing (harassment), the fact of which was confirmed by a court decision that entered into force, led to moral suffering, loss of normal life ties and require additional efforts to organize his (her) life.

Common grounds for compensation for moral damage are fixed in Art. 1167 of the Civil Code of Ukraine (Law of Ukraine No. 435-IV, 2003), from which it is «implied» that the obligation to compensate arises in the presence of: 1) moral damage as a result of violation of personal non-property rights or encroachment on other intangible goods; 2) unlawful decisions, acts or omission of the person causing the damage; 3) causal link between illegal behavior and moral damage; 4) fault of the person causing the damage.

Therefore, compensation for moral damage to an employee who suffered as a result of an accident at work or an occupational disease is possible in the presence of certain conditions provided for by law, which are general for the onset of liability in all cases of causing non-pecuniary damage. Let's consider them in more detail, taking into account the specifics of the legal relationship under investigation.

1) the fact of causing (presence of) moral damage.

Under moral damage caused to an employee due to an accident at work or an occupational disease, Soroka (2021, p. 14) understands non-material losses arising from mental, psychological and/or physical suffering of the victim, caused by damage to his (her) health, which lead to a violation of normal life ties due to the inability to prolong active public life, forced changes or restrictions in the choice of work, abandoning his (her) usual social circle and other negative consequences. Thus, moral damage is a set of moral and/or physical suffering of a person. When determining their nature and degree, it is necessary to proceed from the subjective (individual) characteristics of the victim and his (her) perception of negative consequences of causing such damage.

Sinchuk and Amelicheva (2022) come to the conclusion that compensation of moral damage to the victim of an accident or occupational disease in the context of Art. 237-1 of Labor Code of Ukraine and Art. 16 of the Civil Code of Ukraine is a way to protect the employee's violated constitutional right to work and to proper, safe and healthy working conditions as a component of this right. This way of the employee's rights defense is a direct consequence of the legal relationship between two subjects of labor relations – the employer and the employee, due to the rights and obligations defined by the legislation on labor protection. Compensation for moral damage to an injured party as a way to protect his (her) right to work has objective (legislative conditions of application) and subjective (internal criteria of the subject of the violation of rights) limits.

Tytarenko (2011, p. 146) believes that damage caused to the life or health of an employee while performing his (her) duties should be understood, firstly, as property damage that is associated with the deterioration of the employee's health (with death) as a result of an accident at work or an occupational disease; secondly, moral damage that occurred under such circumstances, but not by itself the deterioration of the worker's health or his (her) death.

We propose to understand this concept as physical and moral suffering experienced by the employee as a result of occupational disability or other health damage, which leads to the loss of normal life ties and requires additional efforts to organize his (her) life, and which occurred due to violation by the employer his (her) rights to proper, safe and healthy working conditions, enshrined in the legislation, collective agreement, regulatory acts of the enterprise (institution, organization), labor contract.

The peculiarity of this tort is that the damage is caused by the performance of the employee's duties (at the workplace or during professional activity) or on the road (on the company's vehicle or on behalf of the employer). The fact of infliction of moral damage, based on the established judicial practice, is considered proven if there is a conclusion of the medical and social expert commission (MSEC) on the damage to health during employment. Thus, the Constitutional Court of Ukraine in paragraph 4.1 of its Decision (Decision of the Constitutional Court of Ukraine No. 1-rp/2004, 2004) stated that health injuries caused to the victim during the performance of work duties cause to him (her) moral and physical suffering regardless of the degree of loss of professional capacity. The loss of working capacity, which is established by the conclusion of the MSEC, is in itself indicative of moral harm, because the health of the victim has deteriorated.

- 2) the illegality of the employer's actions, which occurs in the event of failure to fulfill his (her) obligations to ensure proper, safe and healthy working conditions, or in their violation.

Article 43 of the Constitution of Ukraine (Law of Ukraine No. 254K/96-VR, 1996) stipulates that everyone has the right to proper, safe and healthy working conditions. This right is realized through labor protection as a system of legal, socio-economic, organizational, technical, hygienic and curative measures and means aimed at preserving life, health and working capacity of a person in the process of work.

According to Art. 88 of the Labor Code of Ukraine (Law of Ukraine No. 322-VIII, 1971), healthy and safe working conditions are compliance with safety rules and regulations, necessary lighting, heating, ventilation, elimination of harmful effects of noise, radiation, vibration and other factors that negatively affect the health of workers, etc.

Proper working conditions in the technical sense should be considered operating efficiency of machines, lathes and devices; proper quality of materials and tools necessary for the performance of work and their timely submission; well-timed supply of production with electricity, gas and other energy sources; in-time provision of technical documentation. Healthy and safe working conditions are compliance with safety rules and regulations, necessary lighting, heating, ventilation, elimination of harmful effects of noise, radiation, vibration and other factors that negatively affect the health of workers, etc.

According to the rules of Art. 153 of the Labor Code of Ukraine (Law of Ukraine No. 322-VIII, 1971), the employer is obliged to provide healthy and harmless working conditions, implement modern safety equipment and hygienic conditions preventing industrial injuries and the occupational diseases. Consequently, each employee has the right to a workplace meeting the requirements of labor protection, as well as guarantees and compensations established by labor legislation. In addition, the employer is obliged to ensure safety of employees during the operation of buildings, structures, equipment, implementation of technological processes, as well as tools, raw materials and supplies used in production; to provide means of collective and individual protection preventing and reducing the negative impact of dangerous production factors on the employee; ensure proper sanitary and living conditions.

If the owner does not comply with these legal requirements, then, accordingly, he (she) violates the employee's right to proper, safe and healthy working conditions, which may lead to damage to the health of the latter, including as a result of an accident at work or an occupational disease. Consequently, such actions by the employer may be grounds for holding him (her) liable, including compensation for moral damages.

- 3) causal link between wrongful acts (omission) by the employer and the infliction of moral damage on the employee. A wrongful act on the part of the employer – failure to provide the employee with proper, safe and healthy working conditions, or their violation – should result in moral damage to the latter as a result of an accident at work or an occupational disease, i.e. lead to moral suffering, loss of normal life ties or the need make additional efforts to organize his (her) life.

The practice indicates that the argumentation of moral damage and the formation of the evidence base falls on the employee, who should prove by all available and appropriate evidence that he suffered moral harm.

As we have already noted above, the fact of the assignment of moral damage is considered proven if there is a conclusion of the MSEK about health damage during the performance of labor duties. The High Specialized Court also considers the opinion of a psychiatrist in a preventive and curative institution or medical advisory or medical-social expert commission on the stress experienced by the victim as a result of an industrial injury or occupational disease, or their consequences to be analogous to the conclusion of the MSEK on the establishment of the fact of causing moral damage, about depression or other negative manifestations of the victim's condition; forensic report (Yefimov, 2012).

For example, in case No. 185/10125/21 (2023), the Court recognizes the following documents as confirming the claimant's right to compensation for moral damage caused by injury to health as a result of the performance of work duties:

- the medical opinion of the medical expert commission, in which it was decided to refer PERSON\_1 to MSEK, and to inform the defendant about the presence of the plaintiff's newly discovered occupational diseases;
- notification of an occupational disease;
- act of investigation of causes of chronic occupational disease, approved by the State Labor and Employment Administration;
- the fact of dismissal of the plaintiff from work, due to incompatibility of his state of health with the work performed;
- MSEK certificate dated May 28, 2019, series 12AAA No. 056651.

As for the conclusion of the forensic psychological examination, then according to Art. 102 of the Code of Civil Procedure of Ukraine (Law of Ukraine No. 1618-IV, 2004), the expert's opinion is a detailed description of the research conducted by the expert, the conclusions drawn as a result of them and substantiated answers to the questions posed to the expert, drawn up in the order determined by the legislation. The subject matter of the expert's conclusion may be the investigation of circumstances that are part of the subject of proof, the establishment of which requires special knowledge.

Psychological examination establishes those features of mental activity and their manifestations in a person's behavior that have legal significance and cause certain legal consequences. Its main task is to determine: individual psychological features, character traits, leading personality qualities; motivational factors of mental life and behavior; emotional reactions and states; regularities of the course of mental processes, the level of their development and its individual properties of the sub-expert person (Order of the Ministry of Justice of Ukraine No. 53/5, 1998).

At the same time, it is worth remembering that the forensic psychological examination does not focus on solving the issue of determining the amount of the monetary equivalent of the moral damage caused. The expert opinion in this part is of scientific and recommendatory nature. It is an important piece of evidence, but the court makes the final decision. At the same time, the latter must be based on the principles of reasonableness and justice, and disagreement with the expertise must be motivated in an appropriate procedural manner (Shevtsov & Tymoshenko, 2011, pp. 9 – 10).

Indeed, if the victim has provided enough evidence, which confirms the fact of inflicting moral damage on him and its amount, then the court may not order an examination. In addition, almost all appellate courts believe that when determining the fact of causing moral damage in connection with health damage, established by the conclusions of the MSEK, moral suffering of the victim is proven. At the same time,

attention of the courts should be drawn to the fact that causing non-pecuniary damage in disputed legal relations is not a material and legal presumption. Therefore, it is necessary to prove not only the fact of such harm, but also its amount (Luspenyk & Vysotska, 2012).

We agree with the thesis that moral damage caused as a result of an accident at work or an occupational disease is a proven fact and believe that it can be manifested in the following:

- moral or physical suffering caused by the acts (omission) of the employer that encroach on the life and health of the employee (for example, the employee was injured as a result of a crane falling, or the owner purchased low-quality personal protective equipment that did not save the employee from dangerous production factor);
  - moral experiences in connection with the loss (death at work) of a close relative;
  - moral distress related to the inability to prolong an active life or engage in a favorite sport (for example, after the injury, the employee is unable to visit the bicycle tourism club);
  - moral distress related to job loss (for example, as a result of the injury, the worker has lost the opportunity to work in a single profession, which he (she) owns, or the he (she) has loans, the repayment of which is problematic or impossible at all when losing job, or the victim is the sole breadwinner in family, etc.);
  - moral suffering associated with temporary restriction or deprivation of any rights (for example, the employee lost one eye, as a result of which he was deprived of the right to drive vehicles);
  - moral experiences in connection with physical pain;
  - moral experiences from mutilation, disfigurement, etc.
- 4) the fault of the employer, which is the latter's mental attitude towards the violation of the employee's legal rights and its consequences, expressed in the form of intent (direct or indirect) or carelessness (simple or gross), which in this case is manifested in the improper provision of the latter's working conditions. The degree of fault of the owner is important in determining the amount of moral damage.

The fault of the employer in each individual case is determined by the accident investigation commission. Thus, in the event of an accident at work, the employer is obliged to notify the territorial body of the State Labor Service of Ukraine using means of communication within two hours, and also to provide a report on the accident on paper no later than the next working day. Notification of an accident is provided at the place of occurrence of the accident.

The State Labor Service conducts its activities in accordance with the Procedure for investigating and recording accidents, occupational diseases and accidents at work, approved by the Resolution of the Cabinet of Ministers of Ukraine 337 (2019).

Special investigation commission (hereinafter – special commission) is formed by the State Labor Service and/or its territorial body. After inspecting the place where the accident occurred, studying the documents and materials available, determining the type of event that led to it, determining the compliance of working conditions and its safety with the requirements of labor protection legislation; the need to carry out laboratory research, tests, technical calculations, expertise, etc.; clarification of the circumstances and causes of the accident; identification of persons who violated the requirements of regulations on labor protection, etc., special commission is obliged to draw up H-5 accident investigation report in three copies, as well as H-1 certificate in six copies, if this accident is recognized as being related to production, or NVP act, if this accident is recognized as not related to production, and submit them for approval to the employer.

The employer should consider and approve H-5, H-1 or NPV certificates within a day after the end of the investigation, and for the cases that occurred outside the enterprise – within a day after receiving the necessary materials.

The fault of the employer in violation of the rules of occupational health and safety can be determined by the court. Thus, in the case No. 211/2524/16-ts (2019), the Supreme Court found that the occupational disease of PERSON\_1, which causes him physical pain and mental suffering, was inflicted by JSC "Marganets Mining and Processing Plant", which allowed to exceed the maximum permissible level of dangerous and harmful factors of the production environment and labor process as confirmed by the findings on the claimant's disability. As a result, the Court came to the conclusion that there are legal grounds for compensation for moral damage caused as a result of an occupational disease.

Therefore, it can be concluded that in cases of damage to the life or health of employees by their employers, the fault of the latter is understood in a broad sense as their failure to provide safe conditions and proper labor protection. This means that the fault of the employer means any (even minor) violation of the rules of occupational health and safety, industrial sanitation, lack of proper supervision of work safety. The guilt of the owner is presumed, that is, he (she) is released from responsibility if he (she) proves that the damage was not caused by his (her) fault. Disability, occupational disease, and worker's death are most often related to the activities of the employer, which creates an increased danger for others. The fault of the employer can be expressed in the violation of inter-branch and sectoral rules on labor protection and safety, state standards of the labor safety system, construction norms and rules, norms of sanitation and hygiene, etc. (Vodopian 2019, p. 51).

## **5. Conclusions**

According to labor legislation of Ukraine, an industrial accident or an occupational disease is the basis for compensation for moral damage caused to the employee, which is carried out in the case that the violation of the legal rights of the employee (including the failure to ensure proper working conditions) led to moral suffering, loss of normal life connections and require additional efforts to organize his (her) life.

Compensation for moral damage to an employee who suffered as a result of an accident at work or an occupational disease is possible in the presence of certain conditions prescribed by law, which are common for liability to arise in all cases of causing non-pecuniary damage: the presence of the fact of causing moral damage; unlawful decisions, acts or omission by the perpetrator; 3) causal link between illegal behavior and moral harm; 4) the fault of the perpetrator.

Under moral damage caused to an employee due to an accident at work or an occupational disease, we propose to understand physical and moral suffering experienced by the employee as a result of an occupational disability or other health damage, which leads to the loss of normal life ties and requires additional efforts to organize his (her) life, and which occurred due to the violation by the employer of his (her) right to proper, safe and healthy working conditions, enshrined in the legislation, collective agreement, legal acts of the enterprise (institution, organization), labor contract.

The illegality of the employer's actions in the legal relationship under consideration occurs when he (she) fails to fulfill his (her) obligations to ensure proper, safe and healthy working conditions, or when they are violated. If the owner does not comply with the requirements of the labor law, this can lead to damage to the health of the employee, including as a result of an accident at work or an occupational disease. As a result, such actions by the owner may be grounds for holding him (her) liable, including compensation for moral damages.

The causal link in the aspect under consideration exists in the case when the illegal act on the part of the employer – failure to provide the employee with proper, safe and healthy working conditions, or their violation – has the consequence of causing moral damage to the latter as a result of an industrial accident or professional illness, i.e. lead to moral suffering, loss of normal life ties or the need to make additional efforts to organize his (her) life.

The fault of the employer means any violation of the rules of occupational health and safety, which led to damage to the life or health of the employee, as a result of which the latter has the right to compensation for damages, including moral ones.

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## The use of digital resources in the education system of foreign countries

### El uso de los recursos digitales en el sistema educativo de países extranjeros

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### Abstract

The article examines digital learning technologies, shows the effectiveness of information technologies, introduces the aspects of digitalization of the educational space, analyzes the current state of the use of information technologies in the conditions of digitalization of education. The main goal of digital education is the high-quality and modern preparation of students for their effective participation in professional and social life in the conditions of the information society. The article examines the importance of the concept of digitalization of educational resources is substantiated based on the study of the experience of different countries. Leading features of digital education are proposed: anticipatory nature, quality, flexibility, accessibility, creativity. The leading principles are highlighted and the features of digital education are clarified. The possibilities of digitalization of educational resources in the education system of foreign countries characterized by openness are analyzed. Digitization of educational resources in the education system in foreign countries provides cultural and linguistic education for those seeking education, promotes



the development of informational and communicative competence, provides greater opportunities for quality education and employment of citizens. The leading principles of digitization of educational resources in the education system are defined.

**Keywords:** digitalization, educational resources, education system, foreign countries, open education.

## Resumen

El artículo examina las tecnologías de aprendizaje digital, muestra la eficacia de las tecnologías de la información, introduce los aspectos de la digitalización del espacio educativo, analiza el estado actual del uso de las tecnologías de la información en las condiciones de digitalización de la educación. El objetivo principal de la educación digital es la preparación moderna y de alta calidad de los estudiantes para su participación efectiva en la vida profesional y social en las condiciones de la sociedad de la información. El artículo examina la importancia del concepto de digitalización de los recursos educativos que se fundamenta a partir del estudio de la experiencia de diferentes países. Se proponen las principales características de la educación digital: carácter anticipatorio, calidad, flexibilidad, accesibilidad, creatividad. Se destacan los principios rectores y se aclaran las características de la educación digital. Se analizan las posibilidades de digitalización de los recursos educativos en el sistema educativo de países extranjeros caracterizados por la apertura. La digitalización de los recursos educativos en el sistema educativo en países extranjeros brinda educación cultural y lingüística para quienes buscan educación, promueve el desarrollo de la competencia informacional y comunicativa, brinda mayores oportunidades para una educación de calidad y empleo de los ciudadanos. Se definen los principios rectores de la digitalización de los recursos educativos en el sistema educativo.

**Palabras clave:** digitalización, recursos educativos, sistema educativo, países extranjeros, educación abierta.

## 1. Introduction

In the 21st century, we observe a set of features inherent in society. The most important of them are the introduction of information and communication technologies into the educational sector; globalization of economy, culture, politics, education; increase in network forms of communication, etc. The most popular in modern society is the development of open education, which promotes lifelong learning.

Informatization of society is aimed at solving a significant number of important tasks. The main task is the implementation of digitalization of educational resources in the education system both at the global level and in individual countries. The implementation of digitization of educational resources in the education system contributes to the organization of quality education using digital technologies and inspires and motivates students to eliminate technical problems, and this is a difficult task. Therefore, in today's conditions, the implementation of the digitization of educational resources in the education system, open education, acquired foreign experience in the use of distance learning methods, information and communication technologies, the acquisition of professional competencies, abilities, skills of the future specialist acquire special significance (Osadchuk, 2022).

The main goal of the digitalization of educational resources in the system of training and open education is to prepare students for high-quality and constructive participation in professional and social life in the conditions of the informatization of society. It is open education in the education system during the implementation of digitalization of educational resources that provides an opportunity to expand the educational opportunities of a person and contributes to the creation of a qualitatively new level of unity and openness of the educational system at all levels, in particular, in all types and varieties of external (the connection between the state and society, as well as specific educational institutions and the education

system as a whole) and internal communications (communication between the administration of the educational institution and the teacher and the student of education; students of education; teachers; teacher and student of education) (Leshchenko & Yatsyshyn, 2014).

## 2. Literature Review

The problem of digitalization is especially relevant for researchers in the field of pedagogical sciences, since the results of their research are the theoretical and methodological basis for teaching and educating citizens of a new generation in fundamentally new conditions of digital transformation of social development and digitalization. national education.

In the modern scientific discourse, the attention of scientists to problems related to the development of IT education is constantly growing, in particular A. Yatsyshyn, T. Vdovychyn (2013) and M. Leshchenko and A. Yatsyshin (2014) analyzed normative documents, pointing out the need application of digitization of educational resources in education systems and implementation of open education technologies for quality training of future specialists in educational institutions; outlined the problems of the development of the digital education system and suggested the possibilities of their elimination during the digitization of educational resources in the education system. The openness of education is presented as a process of cyclical improvement of a person's professional and intellectual appearance during his life. N. Voronova (2019) showed the advantage of digital educational resources that work on any digital device. The author's study of the experience of foreign countries proved the possibilities of forming, improving and developing the digital educational environment of the future generation, showed the possibilities of digitalization of educational resources in the education system.

T. Oliinyk, V. Borisov, A. Guba, I. Denysenko, A. Sokolova (2019) substantiated the possibilities of influence of digital educational resources and described the features of the application of digital innovations of the new generation. They showed the importance of digitization of educational resources in the education system and developed a digital literacy course for teachers that meets the civilizational challenges of a sustainable society.

M. Zheludenko and S. Hryniuk (2020) singled out priority educational positions: global and necessary use of digital technologies for learning and teaching; support and assistance of state authorities at all levels and the state in the implementation of digitalization of educational resources in the education system, proposed principles of digital education.

As noted by the above-mentioned authors, informatization significantly affected the process of acquiring knowledge. Digital learning technologies make it possible to intensify the educational process, increase the speed of perception, understanding and the depth of assimilation of huge masses of knowledge.

The use of computers in education, according to many scientists, will make it possible to qualitatively change the methods and organizational forms of education, which, in turn, will create prerequisites for the maximum intensification and individualization of the education process. In particular, in the article, A. Gurzhii, O. Glazunova, and T. Voloshina (2021) analyzed the possibilities of digitalization of educational resources in the education system, clarified the concept of open education, identified the characteristic features of various types of digital educational content, which are necessary when used in open educational systems universities, substantiated mixed and distance learning in institutions of higher education and the possibility of using electronic educational resources for the educational process. And the authors E. Ivashev, O. Sakhno, V. Hryadushcha, A. Denisova, A. Lukiyanchuk, S. Udovik (2021) presented the conceptual aspects of the study of the essence of digitization of educational resources in the education system of foreign countries and revealed their role in the development of education.

We would like to emphasize that the article by O. Germak (2022) considered the digitization of educational resources in the education system, showed ways of using digital learning technologies, showed the need and proved the effectiveness of information technologies in the educational space, the possibilities of using electronic educational resources, showed mobility in the application of information technologies in the conditions of digitization of education in modern society. And V. Osadchuk (2022) analyzed the phenomenon of digitalization of educational resources in the education system, showed the possibilities of open education, analyzed its weaknesses and strengths.

According to these scientists, the introduction of digital tools into the educational process expanded the theory and methodology of education through the use of new didactic tools. The main directions of using digital resources in the educational process are: development of methodical and didactic materials (presentations, images, animation, etc.); management of the educational process of the higher school; targeted search for educational information on the Internet; conducting an experiment with the help of computer models, mathematical processing of the results of the experiment; organization of students' intellectual leisure; development of educational web-resources (distance learning, massive online courses); development and implementation of pedagogical software tools.

Scientists note that the use of digital technologies allows to significantly increase the effectiveness of the educational process, develops the creative orientation of students' cognitive activity, provides objective self-control and self-checking of the acquired knowledge, helps in the formation of relevant professional competencies and personal qualities.

Despite the significant scientific development in the field of research devoted to various aspects of the development of IT education, the following are still relevant: generalization of the historical experience of the development of domestic IT education during the time of its independence, scientific analysis of problems, trends and prospects for the development of this educational field in the conditions of the post-war recovery of the economy and reforming the education system, clarifying its place and role in the world market of the IT industry.

However, research conducted to solve theoretical and practical issues regarding the use of modern digital technologies in the educational process does not fully reveal all aspects of the construction and use of an electronic educational environment for the training of future specialists. Theoretical analysis of scientific works of leading scientists in the field of education, study of the experience of using digital technologies in education. The analysis of the training of future specialists in information technologies in universities shows that pedagogical conditions that would contribute to the improvement of the quality of the provision of educational services, as a result, to the improvement of the quality of professional education based on modern achievements of digital technologies, along with the existing achievements, require additional scientific research both in theoretical, and in practical aspects.

**The purpose of the article.** Consider digital learning technologies, highlight the aspects of digitalization of the educational process, show the possibilities of using electronic educational resources, and show the application of information technologies in the conditions of digitalization of education in foreign countries.

### 3. Methodology

A complex of methods was used for the conducted research, in particular:

- theoretical: analysis, synthesis, comparison of philosophical and psychological-pedagogical scientific sources; terminological analysis to determine the historical origins of the digitalization of educational resources in the education system; historical and pedagogical analysis to determine the period of digitalization of educational resources in the education system in the process of informatization of the

educational space, comparative analysis of the development of digitalization of educational resources in the education system of foreign countries and the introduction of industry innovations in the educational process of students of education in universities of foreign countries – to identify and generalize the trends of promotion quality training of specialists;

- empirical: pedagogical observation of digitization of educational resources in the education system; conducting problem-based training to check the effectiveness of the digitalization of educational resources in the educational process.

The study is based on the premise that the high-quality training of specialists in higher education institutions requires the generalization of promising foreign experience, the definition of the organizational structure of the digitalization of educational resources in the education system, and the content of the training of future specialists, taking into account modern trends in the development of innovations in education, which makes it possible to promote the formation of professional competence of specialists in terms of European integration of educational processes, modernization changes in foreign universities, further successful professional activity of specialists and their adaptation to the labor market. The study involves effective implementation and ensuring the unity of methodological, theoretical, and technological concepts.

#### 4. Results and Discussion

In the conditions of the dynamic development of knowledge communities and digital society in the 21st century, an important task of a higher school teacher is to create during professional training the conditions of such a didactic environment that stimulates intellectual progress of students, contributes to the formation of various ways of their thinking, provides conditions for self-directed and interactive heuristically contextual learning. Great opportunities for this are present in modern times electronic educational resources of different countries of the world, creating an educational environment using information and communication technologies.

Digitization of educational resources in the higher education system should accelerate the transformation of higher education institutions into new types of institutions:

- digital universities (digital universities);
- borderless networks of universities.

When digitalizing educational resources in the education system, it is important to understand the importance of design tasks and their application in today's education, the development of the educational, informational, and scientific environment of a higher education institution, the degree to which all participants in the education process possess digital competencies (Babaev et al., 2019). The readiness of higher education institutions for the digitization of educational resources in the education system is determined by the level of digital maturity of both teachers and students and is manifested due to the ratio of investments and management of IT infrastructure to change management. Digitization of educational resources in the education system (in contrast to informatization) involves the creation of new educational services and modern forms of interaction to realize the potential of education seekers, modernizing educational business processes, ensuring targeted development of the state, institution, and economy (Building digital capability, 2023).

If the digitization of educational resources in the education system is carried out both at the global level and at the level of a specific educational institution, then it is necessary to use the development of a comprehensive solution based on the Deming-Shewhart principle (English. «Plan-Do-Check-Act») and a systemic approach by involving experts from among IT specialists, creating educational policy, pedagogical designers and system analysts (Barna & Kuzminska, 2020).

The educational process for training specialists can be diversified by introducing the digitalization of educational resources in the education system using the latest means of open education technology. Today, education lags behind digitalization, which suggests the need to make efforts to use the strengths and tools of new technologies.

Let's pay attention to the formulation of megatrends that will affect higher education during the next ten years, proposed by specialists of the Studyportals International platform, which involves 3,750 world universities and national institutes (Choudaha & Van Rest, 2018).

- ongoing changes in the labor market: the introduction of digitization of educational resources in the training system affects the global workforce;
- the mismatch of skills: mismatch between the employer's needs and what today's education offers;
- stricter immigration policy: more barriers to the digitalization of educational resources in the education system for mobility to those countries with a high level of income;
- changes in the economy: the dependence of the growth of economic prospects on the markets, which have constant development with the help of the introduction of digitalization of resources in the educational system;
- power imbalance: demand in developing economies versus supply in developed economies;
- budgetary pressure: the reduction of state funding affects higher education (EU business, 2021).

Such analyzed megatrends exert a permanent influence on the educational sphere:

- an increase in people, 332 million students by 2030, who are not just involved in higher education, but also implement the digitization of educational resources in the lifelong learning system (we observe an increase of 56% compared to 2015);
- ensuring qualitative changes like the demand: implementation of digitization of educational resources in the lifelong learning system; implementation of blended learning or online education; improvement of educational programs; when monitoring the quality of education, there is a focus on results in professional activity; consolidation, specialization of institutions.

There is a trend towards neo-industrialization, there is development, renewal, application of IT technologies, and digitalization of educational resources in the education system is necessary. Such problems will change professions and highlight the most in-demand professions in the next 5-10 years.

According to world experts who published their proposals in Forbes, BBC, Trade Schools Colleges, and experts of the research group "Digitale Transformation" of the Research Institute for Future Labor Relations in Bonn, the most needed specialists will be able to implement new technologies and a new technique, design, apply digitization of educational resources in the education system taking into account the challenges of the future, as well as professions related to ensuring human health and life. Such trends set the goal: together with the acquisition of IT skills, strengthening the training of future specialists with the mandatory introduction of digitization of educational resources in the education system (Ministry of Education and Science of Ukraine, 2020).

The main goal of the digitization of educational resources in the education system is to prepare students for effective, full-fledged participation in the professional and social life of a person in the conditions of the information society.

The leading signs of digitization of educational resources in the system of training and open education are anticipatory nature, quality, flexibility, accessibility, and creativity (Korzhilova, 2014).

With such a systematic approach, the educational process becomes creative, interesting, and open, while there is freedom of choice, the possibility of providing free access to information resources, an individualized approach, and conditions for creative joint improvement of the world.

Since the digitization of educational resources in the education system provides continuous learning throughout life, changes are taking place in the relationships of participants in the educational process, accessibility, and efficiency in obtaining knowledge are observed.

Successful experience, the latest methods and innovative approaches in the educational process, as well as specific solutions for the digitization of educational resources in the education system, are being actively implemented in many countries and regions (Bykov, 2021).

The concept of digitization of educational resources in the education system aims to create such a model of "digital university", which will make it possible for the university to become a powerful digital institution of higher education, which will rely on educational platforms, show the flexibility of digital technologies, and will be able to implement interdisciplinary programs for the purpose of quality education. A necessary condition for the development of the concept of digitalization of educational resources in the education system is the digitalization of the educational process with the possibility of creating a single international digital educational system that will ensure the effectiveness of education and increase the leadership positions of future specialists. Such a concept sets itself the task of:

- improving the quality of education with the use of digital technologies;
- providing the material base of the educational institution with modern digital technologies;
- introduction of electronic document management into the system of educational institutions with mandatory use of cloud technologies;
- ensuring the appropriate level of digital competence of teachers and students;
- ensuring cyber security (web services, e-learning).

The concept of digitalization of educational resources is aimed at ensuring accessibility to everyone, it is an innovative system of obtaining education, without regularization of periodicity, analysis of its educational environment, time allocated for studying a separate subject, a program that promotes the development of skills and knowledge, their monitoring and transfer when using informational, pedagogical technologies, distance learning (Toru & Vijaya, 2009).

The leading principles of digitization of educational resources in the education system include the following principles:

- activity (organization of the educational process as whole, educational materials for the courses are built around the individual main educational activity of the student and motivate him to further development during his studies);
- interactivity (interaction with other students and teachers under different educational conditions);
- individualization (expressed in the monitoring of the student's knowledge from the beginning of studies, in the implementation of control: incoming and current);
- regularity (first planning takes place, then monitoring of the educational process depending on the student's capabilities and needs).

And then the system's ability to show flexibility and openness occurs. Openness to a person, society, and the whole world - three provisions that are fundamental and to the greatest extent characterize open education in the second half of the last century. To the implementation of these provisions, one can add an educational environment that is necessary and accessible to all segments of the global population, based on the implementation of digitalization of educational resources in the education system. Today, open

universities are preferred over traditional ones. The positives are the quick transfer of information and the possibility of engaging more advanced, new, innovative means of implementing education (Osadchuk, 2022).

The use of ICT provided a new development for the introduction of digitalization of educational resources in the education system, open education systems, enabling the implementation of an individual approach to education in the educational space, while the basic principles of the philosophy of existentialism are: the principle of democracy, the principle of freedom, the principle of flexibility.

According to the published results of the World Economic Forum on the development of digitalization of educational resources in the education system in various countries, Sweden took first place in the ranking according to the index of network readiness, which shows a high level of development of the Swedish open education system (Dutta & Beñat, 2012). Sweden has maintained this leadership position in the introduction of the digitalization of educational resources into the education system, and the use of ICT technologies in various spheres of society for many years (Leshchenko, 2013).

Along with the concepts of "digitalization of educational resources" and "open education", we find the concept of "open access": this is unlimited access to educational materials and scientific publications using computer technologies, in particular the Internet.

Now a consortium of colleges has been established in the USA, which aims to unite various educational organizations, universities, and institutions at the national and regional level, the League of Innovations in university education, the Consortium of Open Learning, etc. The goal of such an association is the introduction of digitalization of educational resources into the education system, the development of open educational resources, open courses, and educational programs to ensure the possibility of wide access to education and the possibility of improving learning and teaching throughout a person's life (CCCOER, 2023). In Europe, many organizations have been created that intensify open education: in September 2013, the European Commission for the Development of Open Education launched the project "Open educational resources in Europe", developing possible scenarios for the development of open education until 2030. (Castano Munoz et al., 2023). The project covers the following educational areas: secondary education, higher education, and continuing education.

Having studied and taken into account the experience of foreign countries when constructing the concept of digitization of educational resources and using the analysis of the results of the conducted research, we will outline the directions for the implementation of the elements of open education, which are promising (Bykov, 2008; Vdovichin, 2013) in particular:

- the possibility of active use of elements of open education in distance education and lifelong education;
- the introduction of digitization of educational resources in the education system, information and communication technologies make it possible to simulate a certain educational situation in the short term, to visually demonstrate all the positive results of the educational space;
- facilitating the access of materials of electronic publications to a greater number of educational projects: methodical materials for educational space seekers, teachers, and students; cheaper digital textbook formats can be found freely available.

In this way, a higher level of transparency in the system is ensured through the introduction of digitalization of educational resources into the education system, and this leads to higher and higher quality indicators (Leshchenko & Yatsyshyn, 2014).

The experience of foreign countries in the digitalization of educational resources is powerful, which is important for study and implementation. Let's open it. For the development of open education systems,

the introduction of digitization of educational resources in the education system, the developed countries of the world with powerful economies attach primary importance to information technologies, in particular distance education, and the development of open education systems. This approach is due to the following factors (Ovcharuk, 2006):

- the creation of new opportunities for the development of digitization of educational resources in the education system, pedagogical technologies, and the content of education;
- expansion of access opportunities for all strata of the population to all levels of education, especially for those who, due to lack of physical capabilities or financial difficulties, remoteness from large cities, professional employment, etc., cannot study according to traditional forms in institutions of higher education;
- the creation of conditions for the possible implementation of the concept of lifelong learning;
- the creation of conditions for the implementation of digitization of educational resources in the training system for personal training (Zdioruk et al., 2011).

In 2007, the Cape Town Open Education Declaration (2007) was adopted ("Opening the future to open educational resources"), which noted that "the open education movement ... is based on the principles that everyone should be free to use, adapt, improve, and distribute openly licensed educational materials, textbooks, software, and other materials that support teaching and learning without reservation and develop a culture of learning, creation, promote exchange and cooperation in a rapidly changing society of knowledge."

The 21st century is characterized by the development of digitalization of educational resources in the education system and free access to information that is free. These positions are a guarantee for the further development of education, the entire society, and science, and provide opportunities for integration into the world community. For all students of education, "Open Access" is free online access to monographs, scientific articles, dissertations, and other scientific literature located on the Internet space and everyone has the right to download material, read any literature, copy articles, search methodical material for professional growth, etc. We see opportunities in this approach: the use of any literature for any legitimate purpose without technical, financial, or legal obstacles (Tkachenko, 2012), free online access to scientific information, free use for education, research, and other legitimate purposes of such resources (Yatsyshyn & Vdovychyn, 2013).

Considerable attention is paid to the development of the digitalization of educational resources in the education system, and the introduction of media education for teachers in the following countries: Slovakia, Hungary, the Czech Republic, and the USA. The strategy of professional development of teachers has been replaced by modern information and communication technologies and the constant development of digitalization of educational resources in the education system. This approach made it possible to apply innovative elements in the continuous education of teaching staff: new network and information services. Digital resources, and network libraries, which are actively used by teachers of different countries, acquire a general cultural character, and resource systems of an educational nature for various purposes are formed from them. In the process of self-education of all segments of the population, teachers use services for large-scale information analysis, presentation of knowledge in tabular form, and presentations. The availability of such information and communication capabilities, and the development of digitalization of educational resources in the education system contribute to the formation of new pedagogical network communities (Dyachenko et al., 2016).

## 5. Conclusions

The main goal of the development of digitalization of educational resources in the system of training, and digital education is to prepare students for effective, full-fledged, innovative participation in the conditions

of the information society in professional and social life. Digital education, the development of digitization of educational resources in the education system ensures constant changes like relations between participants in educational activities, the continuity of human learning throughout life, and provides opportunities for effective and accessible knowledge acquisition.

Digital learning technologies are considered, the aspects of digitalization of the educational process are highlighted, the effectiveness of information technologies, the possibilities of using electronic educational resources are shown, and the current state of the use of information technologies in the conditions of digitalization of education is analyzed.

The importance of the concept of digitalization of educational resources is substantiated based on the study of the experience of different countries. The main goal of digital education, the development of digitalization of educational resources in the education system is high-quality innovative training of students in the conditions of the information society for full and effective participation in professional and social life.

Developed education systems in the world (Sweden, USA, Great Britain, Slovakia, PRC, Czech Republic, Vietnam, Hungary) are analyzed, which are characterized by the development of digitalization of educational resources in the education system, openness, which ensures the development of informational and communicative competence, cultural and linguistic education, training and employment of all citizens.

It is expedient to direct the following studies to the study of issues of both a methodological and a methodical nature regarding the cyclical renewal of a person's professional and intellectual appearance throughout his life.

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## **Innovative development of the higher education institution: management mechanisms**

### **Desarrollo innovador de la institución de educación superior: mecanismos de gestión**

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### **Abstract**

The theoretical justification of the problem of innovative development of higher education institutions is carried out, and the importance and necessity of innovations in the management of higher education institutions are shown. The goals of the management of the institution of higher education are highlighted, the leading provisions for solving the problems of modern education are proposed, the main principles of the innovative path of the development of higher education are analyzed, the problematic aspects of the management of the institution of higher education in modern society are analyzed. The functions of managing the innovative development of a higher education institution are defined: organizational-executive, informational-analytical, planning, control-analytical, coordination, and motivational-target; it



was found that they combine the features of classical management functions and that are characteristic of the management of innovative development of a higher education institution, and are implemented under the influence of methods: development of management decisions, delivery of management decisions to executors, organizational and methodological support for the implementation of management decisions, obtaining management information.

**Keywords:** innovative development, institutions of higher education, innovations, management of institutions of higher education, managerial functions.

## Resumen

Se realiza la justificación teórica del problema del desarrollo innovador de las instituciones de educación superior, y se muestra la importancia y necesidad de las innovaciones en la gestión de las instituciones de educación superior. Se destacan los objetivos de la gestión de la institución de educación superior, se proponen las principales disposiciones para resolver los problemas de la educación moderna, se analizan los principios fundamentales del camino innovador del desarrollo de la educación superior, los aspectos problemáticos de la gestión de Se analiza la institución de educación superior en la sociedad moderna. Se definen las funciones de gestión del desarrollo innovador de una institución de educación superior: organizacional-ejecutiva, informacional-analítica, de planificación, de control-analítica, de coordinación y motivacional-objetivo; se encontró que combinan las características de las funciones de gestión clásicas y que son propias de la gestión del desarrollo innovador de una institución de educación superior, y se implementan bajo la influencia de métodos: desarrollo de decisiones de gestión, entrega de decisiones de gestión a ejecutores, organización y apoyo metodológico para la implementación de decisiones gerenciales, obtención de información gerencial.

**Palabras clave:** desarrollo innovador, instituciones de educación superior, innovaciones, gestión de instituciones de educación superior, funciones directivas.

## 1. Introduction

Today offers intensive changes in the spheres of social life, particularly in higher education. When creating a management system for higher education institutions, there is a need not only to take into account innovative changes in education but also to actively apply them in the future (Kharkivska, 2012).

Processes are taking place in society, which in the labor market place new innovative demands on the quality of training of specialists in institutions of higher education, requiring constant innovative development of specialists. Therefore, globalization processes are taking place in the world, on which the effectiveness of all spheres of an individual's life depends. Rapid changes are taking place in the labor market, and the education system does not have time to respond to them, so the result is a mismatch of skills with the demands of modern times, which are obtained by students of higher education institutions. This is where new innovative technologies come to the rescue, which increase the civilizational development of mankind, change the quality of life of people all over the world, regardless of the size of the settlement: city or village. The nature of human existence is radically changed by the use of the latest means of life. When reforming education today, the most important tasks are:

- high-quality training of an educated, competitive person,
- training of a creative personality;
- formation of competencies in the future specialist for effective life and professional activities (Kovalchuk & Shcherbak, 2018).

With this approach, solving the problem of ensuring the management of innovative development of a higher education institution becomes of primary importance: theoretical and methodical. Because an acute situation has developed in society, which is problematic and connected with the contradictions that have arisen between the constant growth of requirements for the professional and personal qualities of specialists, the rapid pace of innovative development, and the insufficient ability of higher education institutions to train personnel who would be able to raise education to the world level (Kharkivska, 2012).

## 2. Literature Review

The problems of innovative development of educational institutions, and the essence of managerial innovations in educational institutions attract the attention of many scientists to the attempt to solve these problems.

I. Kirchata, & O. Shershenyuk (2020) proposed a meaningful implementation of social responsibility, which is based on the acquisition of high-level professional competencies by higher education graduates of traditional and at the same time innovatively oriented abilities, and therefore, aimed at the high-quality implementation of educational activities.

B. Danylyshyn, & V. Kutsenko (2005) described the peculiarities of training specialists in higher education institutions; made a comparative analysis of models of financial provision of education in developed countries.

O. Teletov, & V. Lazorenko (2019) singled out the most effective and proved the effectiveness and necessity of innovative methods of developing the educational process in higher education institutions.

G. Klimova (2013) proposed the structural positions of innovations in higher education, made a theoretical and methodological analysis of the conceptual basis of the paradigm of innovative development of higher education.

V. Shebanina, & Yu. Kormyshkin (2019) singled out approaches to the innovative development of entrepreneurship and revealed the significance of the creative and innovative function.

E. Sokolova (2021) presented innovation management as the most important aspect of the innovative development of higher education.

V. Sipchenko & V. Klimova (2019) showed the necessity and significance of innovations in the management of higher education institutions, showed the need for innovative development of higher education institutions, identified problems and showed ways to eliminate them, grouped the main principles and showed innovative mechanisms for managing innovation processes in higher education institutions.

V. Tretko (2011) showed the content of educational technologies, proposed the most relevant mechanisms for adapting innovative experience in the educational process, and clarified the theoretical and practical features of the innovative development of higher education.

V. Kovalchuk, & A. Shcherbak (2018). updated the process of professional training of education seekers and revealed the possibilities of using innovative learning technologies in higher education institutions.

M. Skrypnyk, & O. Grigorevska (2018). investigated the state of innovative activity of the institution of higher education, showed its importance for education in the global space of society and provided an assessment of the personnel potential, paid attention, and gave importance to research work in the institution of higher education.

V. Margasova, N. Tkalenko, & T. Shestakovska (2019) showed the effective possibilities of the model of information and communication support for innovations and proposed the main directions of the development of higher education.

M. Ivashchenko, & T. Bykova (2018). showed the possibilities of the SWOT analysis method and suggested ways of using it in the process of making management decisions, highlighted the advantages and disadvantages of using blended learning in higher education institutions and showed the need to use educational technologies.

**Goal.** To carry out a theoretical justification of the problem of innovative development of institutions of higher education, showed the importance and necessity of innovations in the management of institutions of higher education.

### 3. Methodology

A complex of theoretical research methods was used to solve the tasks: analysis of philosophical, psychological, pedagogical, sociological scientific sources and documents, comparison, classification and systematization to clarify the state of development of the problem of managing the innovative development of a higher education institution; comparative analysis to clarify the conceptual and categorical apparatus, determine the theoretical and applied aspects of higher education institution management; terminological analysis - with the aim of improving the conceptual and terminological base, specifying the definition and essence of concepts; axiomatic - for building a new scientific theory based on generally accepted scientific provisions of pedagogy and the theory and methodology of professional education; induction, deduction, comparison, systematization and generalization - with the aim of clarifying different views on a number of unresolved issues, creating new scientific concepts, outlining ways to solve a scientific problem; abstraction - to separate the process of innovative development of higher education institutions from their performance of general professional duties in an educational institution; classification - for ordering and logical distribution of scientific approaches, principles of innovative development of institutions of higher education for the significance and necessity of innovations in the management of institutions of higher education; hypothetical - to propose a research hypothesis; systemic - to determine the main components of the development of higher education institutions and to show the importance of innovations in the management of higher education institutions and to develop a system of measures to improve this process; pedagogical observation - for the purpose of obtaining primary information about the object of research, building a theory of the researched problem and verifying it in practice; self-assessment - in order to accumulate factual material on the research problem and obtain the most accurate results.

Important for research are the provisions of innovative development of education as: evolutionary and civilizational development of society, andragogical, sociocultural dimension, synergistic aspect, axiological, structuralist and procedural approaches; philosophical aspects of socio-cultural determination, transformation of education, establishment of international relations, entry into the European community, use of socio-cultural and anthropological approaches for their research, along with others, orientation and full provision of educational requests of various socio-cultural population groups against the background of the appearance in the stratification of education of the elite , secondary (ordinary) and low-level education, development, implementation of a differentiated education system, innovative educational technologies; application of means, creation of conditions for successful creative search, development of personality in accordance with its values and motivations, its professional competence, for equal access to quality education in urban and rural (rural mountain) areas.

Among the initial provisions are scientific principles, approaches, and ideas:

- the principle of development, from the standpoint of which the innovative development of higher education institutions, the need for innovations in the management of higher education institutions is a constantly changing phenomenon about the resolution of contradictions under the influence of socio-cultural determinants;
- the position of person-oriented, competence-based, activity approaches in their integration;
- the provision of a synergistic approach, which methodologically strengthens the innovative development of higher education institutions, the need for innovations in the management of higher education institutions, promotes freedom of self-expression and self-realization of the individual in the educational environment. The principle makes it possible to apply innovative development of institutions of higher education, shows the need for innovations in the management of institutions of higher education, makes it possible to understand general and common processes for different fields of knowledge, to understand the prospects for the development of new knowledge, to learn deeply about education, to successfully overcome uncertainty in the conditions of social self-determination and psychological state, unstable socio-economic, political situation, to adapt to life in society by the requirements of the European choice;
- the provisions of the axiological approach to the innovative development of institutions of higher education, the need for innovations in the management of institutions of higher education given the importance of the motivational and value component in the structure of education create an opportunity for the development of universal human, spiritual, civic, social, national, mental, European values and value orientations, attitudes to the mental foundations of society responsibility as an individual, a member of society, as well as an understanding of the social significance of the profession, social roles, and the social purpose of professional activity.

#### 4. Results and Discussion

In the global educational space, tools are offered that provide an opportunity to solve the main tasks that are necessary for solving by the administration during the management of the innovative development of the institution of higher education. The management of a higher education institution needs not only knowledge of tools and skills but also the ability to use them. As an object of management, an institution of higher education differs from both production and school. Differences in the objects of management are reflected in the content and methods of solving management tasks, therefore, a powerful scientific base is needed to improve the existing management systems of the innovative development of the institution of higher education.

Let's single out the main principles of the innovative way of development of the higher education system: humanitarianization, humanization, fundamentalization, variability, innovative management, democratization, and international integration are designed to ensure in the education system: the education of future specialists, competitiveness in the European and global space, the ability of a person to learn throughout life, to be mobile in the labor market. The more intensive the innovative transformations, the more difficult it is to make the implemented transformations effective. This approach calls for the development, implementation, and continuous improvement of a modern management system for the innovative development of a higher education institution.

All trends in the development of higher general education are used in the development of higher pedagogical education. So, let's highlight the main provisions and reveal ways to solve modern problems of pedagogical education:

- improvement of the regulatory framework in the institution of higher education;
- optimization of the global network of pedagogical institutions of higher education;
- development of conceptual foundations of the educational system in pedagogical institutions of higher education;

- improving the management system in pedagogical institutions of higher education,
- formation of a model of a competitive specialist, which can determine the requirements of specialist training, as a subject of at least seven types of activities: scientific, educational, managerial, methodical, educational, innovative, and self-development.

During the research, the problem areas of the modern innovative management of the higher education institution were identified and substantiated:

- inadequacy of the higher education institution's management structure to constantly changing conditions;
- the predominance of the tasks of operative management of the institution of higher education;
- the need for guidelines for the short-term period when achieving goals and objectives;
- lack of an innovative management decision-making system in advance, designed for the innovative development of a higher educational institution, lack of flexible management systems of an educational institution, slow reaction to innovative changes in the external environment;
- the vagueness of mandatory, management procedures;
- low-quality application of such management functions as long-term planning, control, etc.;
- concentration on the performance of internal tasks, the need to increase the efficiency of the innovative development of the higher education institution, the lack of scientifically based programs for the innovative development of the higher education institution, and the lack of feedback from the innovative development of the higher education institution to the consumers of educational services.

The functions of managing the innovative development of a higher education institution are implemented using innovative methods:

- obtaining management information for the innovative development of a higher education institution;
- development of management solutions for the possibility of quality management of innovative development of a higher education institution;
- bringing management decisions to executors;
- organizational and methodological support for the innovative development of a higher education institution to implement management decisions.

To implement an effective management system for the innovative development of a higher education institution, the criteria for managing the innovative development of a higher education institution have been developed:

- modernization of the content of educational activities for the possibility of quality management of the innovative development of the institution of higher education;
- innovative methods and technologies for managing the innovative development of a higher education institution;
- computerized educational and methodological support of the institution of higher education;
- Innovatively created the organizational structure of higher education institution management;
- staffing of the institution of higher education;
- constant replenishment of the material and technical base of management of innovative development of the institution of higher education;
- creation and constant modernization of the information and educational environment;
- evaluation and monitoring of the quality of results in an innovative institution of higher education;
- modernization of the educational process;
- educational and production practice to modernize the management of innovative development of the institution of higher education;
- changing the role of science in a higher education institution;

- modernization of marketing activities for quality management of innovative development of the higher education institution (Kharkivska, 2012).

To create an effective management system for the innovative development of a higher education institution, a pedagogical technology that reflects the process of development, implementation, and updating of a pedagogical project in a higher education institution is effective.

The pedagogical project is aimed at achieving a specific educational goal; reflects the pedagogical paradigm; sells a sample of pedagogical, professional activity embedded in pedagogical technology for its implementation, and performing a normative function. This approach enables the teacher in the process of realizing the goal to create a model of the new management of the innovative development of the institution of higher education, which is possible under the condition of the efforts of all participants in the interaction of the educational society and the optimality of the used resources.

It is important for a teacher to clearly understand: the purpose of using educational technology, and the meaning of its use to do what is planned and achieve the goal, namely:

- to understand and evaluate the potential of the already known technology of managing the innovative development of the institution of higher education, in the process of comparing it with the capabilities of other technologies to achieve the set goal;
- to introduce any technology into educational practice for the innovative development of the institution of higher education to evaluate the effectiveness of its application;
- develop new technology in the project for the efficient management of the innovative development of the higher education institution and implement it in practical activities (Kovalchuk & Shcherbak, 2018).

We propose the implementation of intermediate goals for the transition of the institution of higher education to the mode of innovative development:

- 1) formation of a single cultural, educational, and scientific space of a higher education institution;
- 2) creation of an innovative pedagogical competence-contextual model of graduate training of an education seeker;
- 3) involvement of the entire staff in the management of innovative development of the institution of higher education, support for the systematic modernization of the educational activities of the institution's staff;
- 4) conclusion of business relations with state authorities, signing contractual innovative proposals with educational and scientific institutions, public organizations, and employers;
- 5) initiation of coordinated innovative development programs with institutions of higher education;
- 6) expansion of international cooperation programs to modernize the management of innovative development of higher education institutions.

To achieve the proposed goals, the following tasks should be solved:

- 1) creation, program, its implementation to achieve a strategic goal;
- 2) scientific modernization of the educational and scientific activity of an innovative institution of higher education;
- 3) creation and implementation of a competency model for managing the innovative development of a higher education institution, taking into account professional, multi-level, high-quality training of students in a higher education institution;
- 4) availability of credit-modular organization of innovative educational space;
- 5) development of a mechanism for quality monitoring and quality control of professional training of specialists based on the point-rating system.

It should be noted that the theoretical and methodological basis of the innovative development of higher education consists of:

- competence approach;
- culture-centric paradigm;
- psychological and pedagogical theory of contextual learning (Klimova, 2013).

With the successful implementation of the strategic goals of the management of the innovative development of the higher education institution, the effective functioning of the educational institution becomes possible. Important importance during this procedure is occupied by innovative processes, which are supplemented by innovative management based on SWOT analysis. It provides an opportunity to improve the results of educational activities during local changes, and complex or large-scale innovations in the innovative development of a higher education institution (Kotiash et al., 2022).

The management of the educational institution in the management of innovative development of the institution of higher education determines the nature of changes according to the innovative potential:

- rationalization, improvement, optimization;
- combined innovations in the management of innovative development of a higher education institution, involving the use of innovative technologies;
- pedagogical technologies contributing to the modernization of the management of innovative development of a higher education institution.

Therefore, it is necessary to be convinced the teaching and management staff of the educational institution in the expediency of deploying innovative activities aimed at qualitative changes; clarification of the need for innovation in the management of innovative development of a higher education institution; determining the relevance of the innovation to the existing problem of managing the innovative development of the institution of higher education (Shunkov et al., 2022).

When managing innovative processes in a higher education institution, the main indicators of the quality of management processes are the competitiveness of graduates, the development of innovations, the professional growth of the personnel of the higher education institution, the level of the quality of the educational process (Kuchai et al., 2021).

The effectiveness of innovations is possible with a high level of self-education of education seekers, constant stimulation of innovative activity, and creative leadership. The monitoring of the results of innovations is carried out according to indicators, according to state standards, which include the results of the educational environment according to the levels of educational achievements of the students of education. In monitoring activities, it is necessary to use various forms of educational activity, as well as direct organization, use of innovative techniques, and generally accepted methods. Monitoring activities are subject to motivational means of participants in the educational environment, informational and methodological support, pedagogical analysis, forecasting of results, control, regulation, and correction of the educational environment (Sipchenko & Klimova, 2019).

Educational technologies are constantly being improved and changed. MOOC (Massive open online course) technology, which is used to develop cloud-based education, blended learning, biometrics, and gamified learning (Game-Based Learning), is an innovative direction for quality education (Ivashchenko & Bykova, 2018).

In the educational space, six levels of innovation are proposed, in particular:

- improvement – several elements or one change occurs in the educational space;
- rationalization – establishing in the educational space new requirements and rules for the use of pedagogical tools to solve the tasks of traditional education;
- modernization – changing the elements of the existing educational space;
- heuristic solution – finding a way to solve existing problems of pedagogy in the educational space;
- the use and creation in the educational space of new, previously unknown methods, means, and forms for the analysis and solution of current pedagogical tasks;
- pedagogical invention – a new technology, an innovative tool, or a combination of known tools for achieving goals in the educational space;
- pedagogical discovery – setting, solving, and improving a new pedagogical task in the educational space, which makes it possible to update the educational system and significantly improve its constituent elements (Kurbatov, 2008).

Let's consider two aspects of deepening the interpretation of the concept of innovation, which are determined by levels:

- the functionality of innovations in the educational space;
- the sequence of solving pedagogical problems in the educational space, which can start from any defined level.

Let us show the systematization of innovation levels by three positions:

*Radical* – characterized by the introduction of innovations that are radically new in the educational space, the basis of which is my new knowledge, regularities, has an innovative character, and also has the property of changing the educational innovation space, contributes to the innovative development of the institution of higher education.

*Adaptation* – promotes the adaptation of innovations in the system of higher education that exist based on existing laws, knowledge, and laws and operate in the humanitarian, technical, and economic spheres.

*Improving* – does not create threats of destabilization of the higher education system, does not require long-term adaptation, provides all opportunities for improving introduced innovations and micro-innovations for innovative development of the higher education institution, improving the quality of the existing educational system or its elements (Tretko, 2011).

For the innovative development of a higher education institution, the development of a cloud-oriented environment in a higher education institution is indispensable, which is an actual direction of modernization of pedagogical systems. Cloud technologies are now a necessary element of education and meet the needs for solving educational, cultural, and socio-economic problems of modern society:

- increasing the level of quality of education, innovative development of a higher education institution;
- ensuring the relationship between scientific research and the availability of education for all categories of education seekers;
- training of scientific and pedagogical personnel to ensure innovative development of the higher education institution;
- improvement of the design of innovative development of a higher education institution ensuring the functioning of the educational environment of the institution of higher education.

Cloud technologies are necessary for equal access of all segments of the population to quality education, implementation of innovative development of higher education institutions, and human-centered paradigms (Bykov & Shishkina, 2016). принципів відкритої освіти (Bykov, 2010).

The main elements of the concept of cloud computing have found application in the content of educational organizational modern systems, in particular: service models of application, varieties, content characteristics, features of information technologies, and others. Therefore, the principles that characterize the innovative development of a higher education institution, the use of information technology tools and services based on cloud computing, become a necessary basis in the process of designing an educational environment.

The innovative development of the institution of higher education, and its management mechanisms are a significant basis for the formation of competitive specialists for the expedient, active, scientific use of cloud technologies in their professional activities. Therefore, it is necessary to substantiate the concept of innovative development of a higher education institution and the development of a cloud-oriented environment of a higher education institution, to carry out a classification of cloud-based electronic educational resources and services, to investigate its management mechanisms, models, methods and approaches, principles of organization and development, to determine the most progressive ways of application in education.

The most important problems of the organization and information technology support the processes of innovative development of the institution of higher education, the mechanisms of its management and scientific research in the information and educational environment of the institution of higher education, which is open, are the following:

- development of the conceptual foundations of innovative development of the higher education institution, its management mechanisms, creation of open learning systems based on cloud technologies and their implementation methodology;
- solving the actual theoretical-methodological and scientific-methodological problems of the innovative development of a higher education institution, its management mechanisms, the introduction of cloud-oriented information technology platforms for supporting educational and managerial scientific activities in educational institutions;
- identification of psychological and pedagogical foundations of innovative development of a higher education institution, mechanisms of its management; use of cloud-based tools for scientific and educational purposes;
- determination of the conditions for increasing the level of adaptability of innovative teaching aids, electronic educational resources, and innovative development of a higher education institution, its management mechanisms due to the use of cloud technologies;
- increasing the role of cloud technology tools for the innovative development of a higher education institution, its management mechanisms with the support of network computers and technological equipment, the search for optimized solutions to management, information, and search problems that arise in the process of developing the educational environment;
- creation of a cloud-oriented educational environment in an educational institution for the innovative development of a higher education institution, its management mechanisms as an essential prerequisite for the formation of competitive specialists capable of using cloud technologies in professional activities.

The goal of creating an innovative institution of higher education, through the fundamentalization of the learning process, and the introduction of a cloud-oriented environment, is to fully satisfy the educational and scientific needs of those seeking education, to increase the level of their ICT competencies, to use cloud services, to improve access to electronic educational resources - to expand access to ICT, to ensure the innovative approach to work (Shishkina, 2014).

Let's consider ways of innovative development of a higher education institution, and its management mechanisms based on cloud technologies:

- 1) involvement in the practice of the work of the educational space for innovative development of the institution of higher education, and its management mechanisms: network technologies of the open information space, advanced ICT tools, and cloud computing services;
- 2) active implementation of innovations in the development of the institution of higher education, renewal of its management mechanisms, provision of means of international network information infrastructures and systems, organization of cooperation of the international educational community to form open science systems, implementation of innovativeness in production, coordination of international strategies for the development of education for integration to the European educational space;
- 3) expansion of cooperation of educational and scientific institutions for their innovative development, and management mechanisms; creation of various branches of educational institutions at work, aimed at the development of advanced ICT in the educational sphere;
- 4) development of national standards for the innovative development of a higher education institution, its management mechanisms, the quality of cloud technologies, and their correlation with ISO and EU international standards;
- 5) carrying out systematic scientific research, to substantiate the innovative development of the institution of higher education, and its management mechanisms;
- 6) determination of current directions of research in the field of innovative development of the institution of higher education, and mechanisms of its management, with the help of ICT, in particular, in the sector of educational process software (Bykov et al., 2018).

## 5. Conclusions

A theoretical substantiation of the problem of innovative development of a higher education institution and its management mechanisms has been carried out.

The goals of the management of a higher education institution, the main directions of solving modern problems of the educational sector are highlighted, the leading innovative principles of the development of higher education are clarified, the problematic issues of the management of a higher education institution at the current stage of the development of society are shown.

The importance of the functions of managing the innovative development of a higher education institution, which are implemented using methods, namely: development of management decisions, obtaining management information, organizational and methodological support for the implementation of management decisions, and bringing management decisions to executors, is described. The criteria for the effectiveness of the innovative development management system of the higher education institution have been developed. The levels of innovation are systematized according to three levels.

An important role is given to innovative processes provided by innovative management, the basis of which is SWOT analysis.

MOOC (Massive open online course) technology is proposed for quality education, thanks to which Game-Based Learning, Blended Learning, Biometrics, and Cloud-Based Education are proposed. Ways of improving the institution of higher education based on cloud technologies are outlined.

Further prospects for research in this direction may be related to the search for effective methods of improving the methods of innovative development of higher education institutions.

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# Application of digital technologies in updating the content of the educational branches of primary school

## Aplicación de tecnologías digitales en la actualización de contenidos de las ramas educativas de educación primaria

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### Abstract

The aim of the work was to study the possibility of updating the content of the educational branches of the primary school by means of digital technologies and to evaluate its impact on students' motivation and performance. The teachers' Computer Self-Efficacy Scale was used in the study. The primary school teachers' Media and Technology Usage and Attitudes Scale was also applied. The Motivated Strategies for Learning Questionnaire (MSLQ) was used. It was established that a third of primary school teachers are not active users of digital technologies. The vast majority of teachers use digital technologies in their everyday life and during their teaching activities. It was proved that digital technologies make it possible to update the content of educational branches of primary education. It was found that the introduction of measures to update the content of education in primary school with the help of digital technologies led to an increase in the students' motivation and performance. It is worth continuing work on identifying effective means of updating the content of educational branches not only in primary school, but also in secondary and higher education. In this process, it is necessary to comply with the content relevance and update it synchronously with the pace of development of the relevant industries.

**Key Words:** Innovation, knowledge, learning, digital skills, digital literacy, motivation, primary education.

### Resumen

El objetivo del trabajo fue estudiar la posibilidad de actualizar los contenidos de las ramas educativas de la

escuela primaria por medio de tecnologías digitales y evaluar su impacto en la motivación y el rendimiento de los estudiantes. En el estudio se utilizó la Escala de Autoeficacia Informática de los docentes. También se aplicó la Escala de Actitudes y Uso de Medios y Tecnología de los maestros de primaria. Se utilizó el Cuestionario de Estrategias Motivadas para el Aprendizaje (MSLQ). Se estableció que un tercio de los docentes de primaria no son usuarios activos de tecnologías digitales. La gran mayoría de los docentes utilizan las tecnologías digitales en su vida cotidiana y durante sus actividades docentes. Se comprobó que las tecnologías digitales permiten actualizar los contenidos de las ramas educativas de la educación primaria. Se encontró que la introducción de medidas para actualizar el contenido de la educación en la escuela primaria con la ayuda de tecnologías digitales condujo a un aumento en la motivación y el rendimiento de los estudiantes. Vale la pena continuar trabajando en la identificación de medios efectivos para actualizar el contenido de las ramas educativas no solo en la escuela primaria, sino también en la educación secundaria y superior. En este proceso, es necesario cumplir con la relevancia del contenido y actualizarlo de forma sincronizada con el ritmo de desarrollo de las industrias relevantes.

**Palabras clave:** Innovación, conocimiento, aprendizaje, habilidades digitales, alfabetización digital, motivación, educación primaria.

## 1. Introduction

The school and the teaching staff must respond synchronously to the changes associated with the rapid development of technologies, introduce them into the educational process, and build students' 21st century skills necessary for adult life. This is the key to the social, political and economic development of the country (Yaroshenko et al., 2020). The ability to read and write is no longer enough to be competitive. The era of digitization requires members of society to have other skills, including digital literacy. Therefore, it is necessary to introduce digital technologies into education. Digital technologies are believed to help spread knowledge and are a major driver of educational reforms in many countries (Haleem et al., 2022). They facilitate the learning process, making it more productive (Rachmadtullah et al., 2020) and intensive. Besides, they help in extreme conditions to ensure continuity of learning, for example, during a pandemic (Moorhouse & Wong, 2022). Digital technologies help to provide high quality of education at the initial stage, which is important for the future development of the child (Rahiem, 2021). Besides, the education system requires constant update of the educational content in accordance with the changes associated with the rapid emergence of new information and the loss of its relevance over the next few years. Many works on the use of digital technologies in education were found in the academic literature. However, little attention was paid to the problem of updating the content in primary education, filling it with relevant information, in particular through the use of digital technologies. Therefore, the aim of this work was to study the impact of the use of digital technologies in the educational process on updating the content of educational branches, using the example of primary school, and to find out what effect it will have, for example, on students' motivation and performance.

The aim involved the fulfilment of the following research objectives:

- 1) Study the frequency and features of the use of digital technologies by primary school teachers;
- 2) Establish the attitude of primary school teachers towards digital technologies, and to assess their digital self-efficacy perception;
- 3) Introduce content of educational branches in primary school updated through digital technologies;
- 4) Identify the impact of the updated content of primary school education on students' motivation;
- 5) Determine the impact of the updated content of education on the academic performance of primary school students.

## 2. Literature review

Digital technologies are currently used both in secondary (Jannah et al., 2020) and preschool (Gjelaj et al., 2020) education. They help to support blended learning (Macaruso et al., 2020), uninterrupted mobile learning (Hamid et al., 2019) or distance learning (Azzahra et al., 2022) under various learning conditions (Wahyuningsih & Baidi, 2021). They are used in the teaching of various subjects: fine arts (Kupaysinovna, 2021), foreign language (Bereczki & Kárpáti, 2021), mathematics (Novita & Herman, 2021), musical art (Desyandri et al., 2021), natural science (Bereczki & Kárpáti, 2021), physical education (Mansurovich, 2022), the development of reading and writing skills in younger schoolchildren (Novita & Herman, 2021), as well as creative skills (Bereczki & Kárpáti, 2021), they enrich children's vocabulary (Rahiem, 2021).

The acceptance of digital technologies in the field of education by teachers and lecturers is important for their effective use. Jannah et al. (2020) showed a positive attitude of primary school teachers towards the integration of digital technologies into the educational process. It was found that with the help of digital technologies, students' learning motivation and the level of critical thinking increased, they became more active and took initiative more often. It was also established that the productivity of learning depends on the availability of digital technology infrastructure in the school and the teacher's digital competence. Although some teachers have an erroneous belief that digital technologies perform only an administrative function.

Despite the availability of digital technologies in schools, international studies indicated their low effectiveness for students' academic performance (Spiteri & Chang Rundgren, 2020). The main obstacles that hinder the application of digital technologies in school were identified: insufficient digital literacy, lack of digital skills (Jobirovich, 2021), attitude towards digital technologies as a secondary, not a central tool in the formation of students' literacy (Watt, 2019). Overcoming these obstacles requires, for example, conducting courses and educational seminars on the use of digital technologies and the Internet (Walters et al., 2019), training teachers to create presentations, use animations, videos (Agéllii Genlott et al., 2019; Vasylykiv et al., 2022). This is important because the influence of a teachers' digital literacy on their self-efficacy perception was proved, and the latter, in turn, is related to the willingness to teach and successfully fulfil the curriculum (Gudek, 2019).

The positive consequences of using digital technologies in primary school include (Jobirovich, 2021): enthusiasm in learning; keen observation of the lesson; independent study of students in small groups; development of communication skills; enhanced curiosity, activity, motivation, concentration, reading literacy, observation, critical thinking; increasing the speed of response to digital stimuli; development of self-study skills; personalization of training; expansion of educational opportunities through updating the educational content with accessible educational materials, quick obtaining and updating of information. The productivity of teaching and learning increases in this way (Haleem et al., 2022). Besides, digital technologies facilitate the development of online libraries and e-books. They create a space with open educational content for shared use, which significantly saves teachers' time when creating and updating educational material.

Digital technologies contribute to the development of distance education, they make education accessible to everyone, even those with disabilities. They also speed up the assessment of students' knowledge, thereby reducing the teacher's load (Haleem et al., 2022). Although there are also negative consequences: decreasing willingness to read and write, increasing individualization and decreasing socialization of students, a negative effect on students' emotions, hypodynamia, irregular time management, etc. (Jannah et al., 2020).

According to Jobirovich (2021), the main directions of influence of digital technologies should be: development of students' thinking, support of cognitive activity, acquisition of knowledge, development of

abilities and skills, individualization and differentiation of the educational process. Digital technologies as means of learning are divided into: electronic textbooks, virtual meccanos, educational computer games, multimedia, video lessons, individual tests, etc. (Watt, 2019). Multimedia projectors and interactive whiteboards also had a positive effect on student learning. Stringer et al., (2019) developed a number of recommendations for their application at different stages of education.

Digital technologies help to make educational materials bright and colourful, which contributes to their better memorization (Jobirovich, 2021). Gamified educational environments can develop the creative abilities of elementary school students (Bereczki & Kárpáti, 2021). Digital stories develop reading comprehension, explain scientific facts, develop speech, improve communication skills, and contribute to moral and social development (Rahiem, 2021).

It is appropriate to follow a three-frame approach to learning when using digital technologies: students' academic success, school environment and behaviour at school, students' extracurricular life. It is important to introduce students to digital etiquette as early as possible (Walters et al., 2019). It is also necessary to remember that not all content on the Internet is suitable for primary school students (Akhwani, 2019). It is necessary to make students aware of the danger of a digital trail left on the Internet that can lead to cyberbullying or other negative consequences. Introducing digital technologies into the educational process requires the development of students' digital media literacy. It is important to make them understand the harmful effects of technology on health, and the benefits of a mobile lifestyle as an equivalent of a healthy lifestyle (Hyman et al., 2020).

### 3. Methods

#### Research design

The research was conducted in three stages.

The first stage involved sampling, the division of the sample into experimental and control groups using the criteria for selecting research participants.

The second stage provided for the introduction of training according to the updated content of education in the experimental group with the use of digital technologies. Digital technologies were involved in teaching of all subjects in the experimental group. The teachers used multimedia projectors to demonstrate learning material, usually in the form of presentations or videos. The requirement for educational digital content was not to replicate the material of the textbook, but to supplement it with other, new, relevant information. At the same time, teachers also included work with textbooks in the lessons.

When teaching visual arts, students were offered, for example, to create a picture in Paint Graphic Editor, to create heroes of the children's favourite digital game, using the geometric shapes available in the editor. They were also offered to make a collage on a given topic from images available on the Internet, or use mobile applications to colour one of the pictures from a large number of proposed ones. Internet resources were also used to search for information about the history of art, features of various directions and styles, both historical and modern, etc.

When learning a foreign language, students expanded their vocabulary with the help of mobile applications, while improving their listening, reading, speaking and writing skills. The content was updated with interesting short videos containing dialogues of the main characters of modern children's films. Digital foreign language games and quizzes were also used. Students were offered to study digital images and illustrations of foreign literary texts, not only those contained in textbooks, but also new ones found on the Internet. Students were also asked to create illustrations for the text they heard or create a video interview

in which to express the feelings that arose when reading or listening to the text. Besides, students worked on digital posters. So, digital technologies were used to update the content of education along with the updating of teaching methods.

When studying mathematics, different applications were used in order to study mathematical concepts and rules. Training exercises were also conducted, with a gradual increase in the complexity level and the transition to a higher level, provided that the previous level was correctly completed. At the same time, the content of the exercises was relevant and close to the students' interests, and did not replicate the content of the textbooks, but supplemented it. Similarly, the content of education in Musical Art, Technologies, Ukrainian Language and I Explore the World was updated.

The third stage involved studying the impact of the introduction of the content of the educational branches of primary education updated through the use of digital technologies on students' motivation and their academic performance.

The pedagogical experiment lasted for two academic years from September 2020 to May 2022.

### **Tools**

The Computer Self-Efficacy Scale (CSE) (Murphy et al., 1989) and the Media and Technology Usage and Attitudes Scale (Rosen et al., 2013) were used in order to determine the attitude of primary school teachers to technology and their sense of their self-efficacy of using digital technologies in the educational process. Besides, the effect of the updated content on the cognitive motivation of elementary school students according to the Motivated Strategies for Learning Questionnaire (MSLQ) was measured (Pintrich & DeGroot, 1990), and students' academic performance was determined based on the results of the final control.

The representativeness of the Computer Self-Efficacy Scale (Murphy et al., 1989) was tested using Kaiser criterion. Cronbach's alpha ranged from 0.77 to 0.96. For the Media and Technology Usage and Attitudes Scale (Rosen et al., 2013), Cronbach's alpha was 0.61 - 0.97. The reliability coefficient of the Motivated Strategies for Learning Questionnaire (Pintrich & DeGroot, 1990) was 0.74-0.89. At the same time, the correlation coefficient was 0.33-0.73, the significance level was 0.05.

### **Sample**

The study involved 36 primary school teachers. The age of the teachers ranged from 27 to 60 years old. Their teaching experience ranged from 5 to 35 years. Evaluating the attitude of primary school teachers to digital technologies made it possible to divide the participants of the experiment into control and experimental groups. The control group included 12 teachers who, on average, scored less than half of the maximum score on the subscale (less than 15 points) on the "Positive Attitude" subscale. The experimental group included 24 teachers who scored above 15 on this subscale.

The sample also included 793 students of grades 1-2 who were students of the teachers included in the sample: 264 were included in the control group, and 529 — in the experimental group.

### **Data collection**

At the first stage of the study, the teachers of the sample were asked to evaluate their attitude to digital technologies by rating the first 40 items of the scale on a 10-point frequency scale. 1 point corresponded to the answer "Never", 2 – "Once a month", 3 – "Several times a month", 4 – "Once a week", 5 – "Several times a week", 6 – "Once a day", 7 – "Several times a day", 8 – "Once an hour", 9 – "Several times an

hour”, 10 – “All the time”. The last 4 items were evaluated on a 9-point quantitative scale, where 1 point meant 0 people, 2 - from 1 to 50 people, 3 - from 51 to 100, 4 - from 101 to 175, 5 - from 176 to 250, 6 - from 251 to 375, 7 - from 376 to 500, 8 - from 501 to 750, 9 - more than 750.

The teachers’ digital self-efficacy perception was also studied according to 12 factors, which teachers evaluated on a 5-point Likert scale, where 1 – “Totally disagree”, 2 – “Totally agree”.

At the last stage of the study, the Motivated Strategies for Learning Questionnaire (MSLQ) was used, and students were asked to answer 44 questions on a 7-point Likert scale, where 1 is “Not correct at all”, 7 is “Completely correct”.

The final control of students’ educational performance was carried out on a 12-point scale, where 1-3 points are the elementary level, 4-6 — the medium level, 7-9 — the sufficient level, 10-12 — the high level.

### Data analysis

The Statistica application software was used in the study for the purposes of statistical analysis. Analysis of variance, the Pearson correlation coefficient and Cohen’s kappa coefficient were also used.

Participation in the study was voluntary, free of charge, and anonymous. All teachers and parents of students gave their written consent to participate in the study.

## 4. Results

At the initial stage of the study, the use of digital technologies and teachers’ attitudes towards them were assessed using a scale (Rosen et al., 2013). The obtained results are presented in Tables 1 and 2.

**Table 1.**  
*Results of assessment of the use of digital technologies*

Subscale	Control group		Experimental group		Maximum score for the subscale
	M	SD	M	SD	
<b>Use of a smartphone</b>	36.1	4.7	74.5	5.2	90
<b>Use of social networks</b>	42.7	4.5	63.8	4.3	90
<b>Internet search</b>	18.5	5.2	34.2	5.6	40
<b>Use of e-mail</b>	11.4	3.8	27.3	4.1	40
<b>Sharing media files</b>	12.6	4.3	29.4	4.9	40
<b>Exchange of text messages</b>	17.2	4.6	33.9	5.7	40
<b>Video games</b>	8.1	2.9	21.7	3.6	30
<b>Online friendship</b>	6.5	2.3	14.6	2.5	18
<b>Friendship in social networks</b>	6.2	1.9	13.8	2.4	18
<b>Phone calls</b>	15.6	3.4	14.3	3.1	20
<b>Watching TV shows</b>	12.3	3.9	9.1	3.2	20
<b>Total score</b>	191.2		269.6		446

The assessment of the use of digital technologies revealed that the teachers of the experimental group used smartphones on average once an hour in their life (Table 1), for example, to check e-mail, use GPS navigation, browse web pages, listen to music, take photos, record videos, view news, use programmes and mobile applications, and search for the necessary information. The teachers of the control group did this on average once a week. The frequency of checking one’s own social network page, including through

the use of a smartphone, updating one’s status, posting photos, viewing profiles and photos, reading and commenting on publications by participants in the experimental group was several times a day, while in the control group — once or several times a week. The teachers of the experimental group used any digital devices to search the Internet for news, information, videos, images, and photos on average once or several times an hour, while the teachers of the control group used them several times a week. Assessment of digital technology use showed that teachers in the experimental group usually checked personal or work e-mail several times a day, as well as sent, received and read e-mails and files. At the same time, the teachers of the control group did that several times a month. The teachers of the experimental group downloaded media files, watched TV shows, movies, video clips, etc. on the computer, shared media files with other users several times a day on average, while the teachers of the control group did that several times a month.

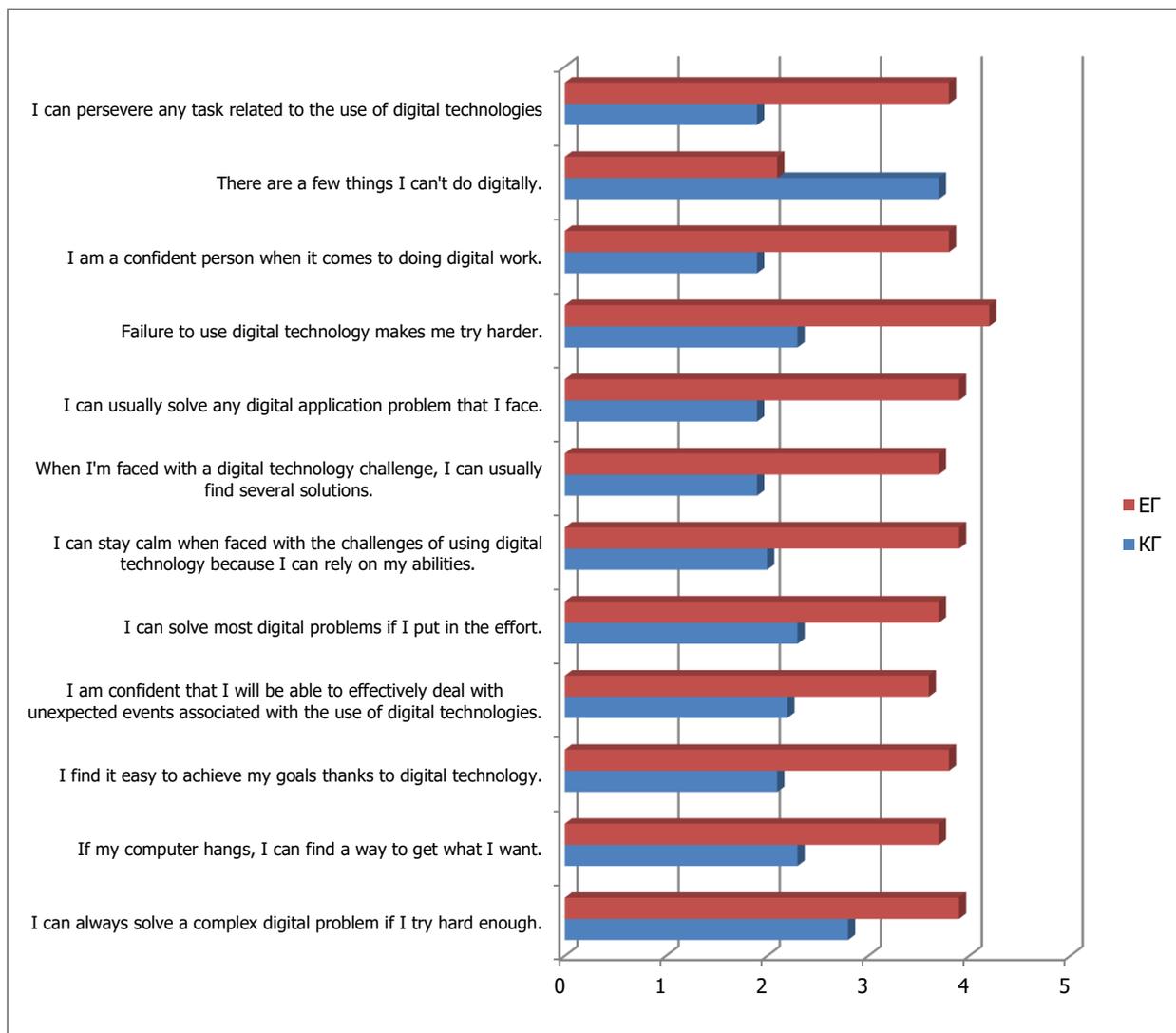
The teachers of the experimental group checked text messages on the phone, sent and received them, used their mobile phone during classes at work once an hour on average, while the teachers of the control group did so once a week. The primary school teachers of the experimental group played digital games several times a day on average, while the teachers of the control group — several times a month. The teachers of the experimental group had an average of more than 500 friends in social networks at the time of the study, while the teachers of the control group had less than 100 friends. The development of digital technologies has changed the format of communication. Active smartphone users used phone calls less (several times a day), and less active users of digital technologies made a phone call once an hour on average. The availability of digital technologies and their wide functionality made active users watch TV programmes on a smartphone or computer, while watching them on TV once a week on average. On the contrary, less active users of digital technologies watched TV shows on TV once a day on average.

**Table 2.**  
*Results of assessment of attitudes towards digital technologies*

Subscale	Control group		Experimental group		Maximum score for the subscale
	M	SD	M	SD	
<b>Positive attitude</b>	12.1	4.7	25.3	4.1	30
<b>Anxiety/ dependence</b>	8.9	3.6	10.7	2.9	15
<b>Negative attitude</b>	13.4	2.8	4.1	1.6	15
<b>I prefer to focus on another assignment</b>	9.2	3.5	14.6	2.7	20

As Table 2 shows, the teachers of the experimental group mostly agreed with the importance of Internet access at any time and closely followed the development of digital technologies. The vast majority of teachers included in the control group did not consider it important to be able to get information from the Internet at any time when such a need or desire arose. They also disagreed with the importance of following the latest trends in the development of digital technologies. Among the teachers of the experimental group, greater anxiety and dependence on digital technologies was found than in the control group (the average score for the three items of the “Anxiety/dependence” subscale was 10.7 and 8.9, respectively). It was found that the participants of the control group believed that technology takes a lot of time, complicates the lives of users and isolates people from society (average score of 13.4). The teachers of the experimental group held the opposite opinion (average score of 4.1). The last subscale of Table 2 showed how teachers work on performing several tasks. In the experimental group, teachers preferred to perform tasks in parts, while switching attention from one task to another from time to time (14.6 points, compared to 9.2 in the control group).

Figure 1 presents the results of assessing digital self-efficacy perception by primary school teachers according to the scale (Howard, 2014).



**Figure 1.** Perception of computer self-efficacy by primary school teachers

As Figure 1 shows, the frequent use of digital technologies by teachers in everyday life and in the educational process contributed to their confidence in their own abilities to perform various operations and tasks on a computer, laptop, tablet, smartphone, etc. Primary school teachers included in the experimental group showed almost twice as much confidence in their own abilities when using digital technologies. They more persistently performed tasks of varying complexity using digital technologies. The experience of unsuccessful use of digital technologies did not stop the teachers of the experimental group, but forced them to work even harder on solving them.

**Table 3.**  
*Results of assessment of motivation according to MSLQ*

Question no.	Control group		Experimental group	
	M	SD	M	SD
1.	3.8	1.1	4.9	0.9
2.	4.5	1.6	4.7	1.3
3.	3.4	0.8	2.8	0.7
4.	2.7	0.9	4.1	0.8
5.	3.9	0.7	5.2	0.8
6.	3.1	0.8	4.9	0.9
7.	3.4	0.8	5.0	0.8
8.	3.7	1.2	4.9	1.1
9.	3.6	0.7	4.3	1.2
10.	2.7	0.8	3.5	0.9
11.	2.9	0.7	4.4	0.7
12.	3.2	0.9	2.5	0.9
13.	2.8	1.0	3.7	0.8
14.	3.3	0.7	4.1	0.8
15.	3.8	0.9	4.6	0.9
16.	3.1	0.8	3.8	0.7
17.	3.6	1.1	5.4	1.3
18.	3.9	1.1	4.8	1.0
19.	3.2	1.0	4.5	1.1
20.	3.1	0.9	2.1	0.8
21.	2.9	0.9	4.0	0.9
22.	4.6	0.7	2.3	0.8
23.	3.3	0.8	5.8	0.8
24.	2.9	1.1	4.6	1.1
25.	3.5	0.9	4.7	0.7
26.	5.4	0.9	3.4	0.9
27.	4.7	0.7	2.9	0.8
28.	3.8	0.8	5.1	0.8
29.	3.2	0.9	4.3	0.9
30.	3.7	1.1	4.8	1.0
31.	2.4	1.0	3.5	0.9
32.	2.1	0.8	3.3	0.8
33.	3.4	0.9	4.1	0.8
34.	3.6	0.8	4.7	0.9
35.	2.9	0.9	4.2	1.1
36.	3.3	0.9	4.8	0.8
37.	4.8	0.8	2.5	0.9
38.	4.9	0.8	2.8	0.8
39.	2.3	1.0	4.9	1.2
40.	2.8	1.1	4.7	1.0
41.	3.1	1.2	4.5	0.9
42.	2.9	0.8	3.2	0.8
43.	3.6	0.8	4.8	0.7
44.	2.7	0.9	4.6	1.1

As Table 3 shows, updating the educational content in primary school with the help of digital technologies, which was introduced during the experiment, had an impact on students' motivation. They were more eager to learn new material thanks to the interesting and relevant content. They passed the test with more confidence, were less nervous about the results they might get. They were interested in the learning process. Students understood the connection between already familiar information and new information. They were able to identify the main idea from what they read or heard. They did not leave the material unlearned, even if it seemed difficult to them at first glance, they tried to learn it until they fully understood the topic. When studying new material, students were less distracted by something secondary, usually listened carefully and tried to understand everything they heard. They read carefully, if they had a question — they reread it again, leaving no questions without answers. The calculation of the Cohen's ratio, which was more than 1.0, showed that there was a high effect of updating the content of educational branches of primary school on enhancing students' motivation. The Pearson correlation coefficient ranged from 59 to 160.

The influence of the updated content of the educational branches of primary school on students' learning outcomes was also studied. Table 4 presents the results of the final control of students' academic performance conducted after the end of the pedagogical experiment.

**Table 4.**  
*Results of final control of students' academic performance*

Control group		Experimental group	
M	SD	M	SD
6.9	2.4	7.8	2.2
Max = 12		Max = 12	
Medium level		Sufficient level	

Updating the content of the educational branches of primary school also had an impact on student learning outcomes. In particular, the final assessment of students' academic performance after two years of conducting a pedagogical experiment related to the introduction of updated content of the educational branches of primary school found that the average value of the level of knowledge, skills and abilities achieved by students in the experimental group increased significantly compared to the control group. The average score according to the results of the final control on the 12-point evaluation system in the experimental group was 7.8 points (sufficient level), in the control group – 6.9 (medium level). The calculation of Cohen's coefficient indicated a high effect of updating the content of the educational branches of primary school on the results of students' academic performance. It was 1.1 for the experimental group, and within 0.6 for the control group, which indicates a medium effect;  $\chi^2=118$ .

During the research, the weighted sum of the squared deviations of the group averages from the overall average — the intergroup variance  $d$  — was obtained using mathematical methods. It was determined by the heterogeneity of the sample because of conducting of a pedagogical experiment in different groups, which included students from different general secondary educational institutions. The root-mean-square deviations from the mean for the same studied parameter in different primary educational institutions included in the sample were different. The intergroup variance, which describes the fluctuations of these groups, and the intragroup variance, which describes the fluctuations caused by random factors not taken into account, were not equal, which is evidence of the invalidity of the null hypothesis

## 5. Discussion

This study showed that about 60% of primary school teachers were active users of digital technologies. They used their smartphones at least once an hour for various purposes: checking messages, e-mail, social networks, sharing files, photos, media, etc. Research conducted, for example, in Africa found that 80% of teachers know about digital technologies, computer equipment, mobile phones, electronic devices, the Internet, and social media. All 100% of the interviewed teachers indicated that in the schools where they work, the technical equipment: computers, laptops, multimedia projectors and an Internet network are available for teachers, not students (Jannah et al., 2020). The vast majority of teachers plan the educational process, prepare educational materials, conduct evaluations and solve administrative issues with the help of digital technologies. A survey of Swedish teachers showed that less than a third of them believe in the positive impact of digital technologies on the effectiveness of the educational process (Agélii Genlott et al., 2019). A total of 20% of respondents consider them harmful in pedagogical practice.

The pedagogical experiment carried out in this work, which involved 36 teachers and 793 students, revealed that the educational content of the elementary school updated through the use of digital technologies had a high effect on students' motivation and academic performance. Research conducted among 3,721 schoolchildren found that standard methods were less effective in teaching students to read compared to blended method that included the use of digital technologies (Macaruso et al., 2020). Although some contradictions were found in the teachers' attitude towards traditional teaching and involving digital technologies. Some teachers believe that traditional teaching will be more effective until teachers have sufficient digital literacy.

The study of the impact of computer games on the learning motivation of primary school students, their success and attitude to learning and school was carried out on the example of 90 students of public primary educational institutions. A change in the learning motivation caused by the use of computer games was found, but no changes in the attitude towards the lessons were observed (Sabirli & Çoklar, 2020). It was also established that the thinking of children who play computer games is significantly different from the thinking of those who do not. Besides, a connection was established between technology and creativity, as well as cooperation in education (Aguilar & Pifarre Turmo, 2019).

Thanks to an 8-week experiment conducted among 135 students of the third grade of an elementary school, it was established that digital technologies contributed to the development of knowledge in mathematics and increased accuracy of arithmetic calculations (Christopoulos et al., 2020). The educational environment, which needed changes at the beginning of the experiment, was important.

A survey of 336 elementary school students in Korea showed that more than 95% of them had experience interacting with virtual and augmented reality (Suh & Ahn, 2022). The positive impact of the latter on the success of students was found. Socio-emotional and motivational functioning is associated with the socio-digital participation of schoolchildren (Hietajärvi et al., 2019).

### Limitations

This study had a sample limitation (students of grades 1-2). At the same time, it was not taken into account whether students attended preschools. Moreover, the results of the study had a certain sensitivity to the time of the pedagogical experiment and the situation surrounding education in Ukraine (pandemic and war) in the studied period of time.

## 6. Conclusions

The rapid spread of information promoted by the rapid development of digital technologies makes it obsolete in just a few years. Therefore, the issue of synchronous updating of the content of educational materials in educational institutions in order to support students' interest in learning is urgent. The research conducted in this work showed that more than half of the teachers were active users of digital technologies. They often exchanged files, used social networks, and searched for the necessary information. The teachers emphasized the importance of access to the Internet anytime, anywhere as they used digital technologies to streamline the learning process. The conducted pedagogical experiment on updating the content of the educational branches of primary school carried out through the use of digital technologies revealed an increase in students' interest in learning and their enhanced motivation. It also had a positive effect on reducing their anxiety before tests and persistence on the way to understanding new educational material. The updated content of the educational branches also enabled to increase the performance of elementary school students. The results of this research can have theoretical and practical significance, as they complement the existing knowledge of primary school pedagogy and can be used to improve the effectiveness of the educational process of primary school with the involvement of digital technologies to update the content of the educational branches.

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