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

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≤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

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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≤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 21st 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. Algwil (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

<table>
<thead>
<tr>
<th>Stage</th>
<th>Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research and theoretical</td>
<td>2020</td>
<td>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.</td>
</tr>
<tr>
<td>2. Experimental</td>
<td>2021</td>
<td>Carrying out an educational experiment of using the grammar translation method. Analysis of the level of components of written foreign language competence.</td>
</tr>
</tbody>
</table>

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 3rd and 4th 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 χ² criterion, which was determined by the formula 1:

   \[ \chi^2 = \frac{(f_1 - f_2)^2}{(f_1 + f_2)} \quad (1) \]

   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:

\[
\frac{N}{N-1} \left( \frac{N \sigma^2 - \sum_{i=1}^{N} \sigma_{i}^2}{\sigma^2} \right)
\]

(2)

where \( \sigma_{i}^2 \) – total test score variance;

\( \sigma_i^2 \) – \( i \) 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\(^{rd}\)-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)

<table>
<thead>
<tr>
<th>Theoretical criterion</th>
<th>Control group</th>
<th>Experimental group</th>
<th>Xi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>Knowledge of the functional parts of speech</td>
<td>55.1%</td>
<td>34.7%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Knowledge of the independent parts of speech</td>
<td>40.8%</td>
<td>42.9%</td>
<td>16.3%</td>
</tr>
<tr>
<td>The ability to anticipate the use of different parts of speech according to their function</td>
<td>63.4%</td>
<td>28.6%</td>
<td>8.2%</td>
</tr>
<tr>
<td>The ability to independently study educational literature in order to learn new grammatical constructions</td>
<td>71.4%</td>
<td>24.5%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Control group</th>
<th>Experimental group</th>
<th>Xi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels of the indicators of written foreign language competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theoretical criterion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of the functional parts of speech</td>
<td>49.0%</td>
<td>38.8%</td>
</tr>
<tr>
<td>Knowledge of the independent parts of speech</td>
<td>55.1%</td>
<td>34.7%</td>
</tr>
<tr>
<td><strong>Technological criterion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to anticipate the use of different parts of speech according to their function</td>
<td>57.1%</td>
<td>36.7%</td>
</tr>
<tr>
<td><strong>Methodical criterion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to independently study educational literature in order to learn new grammatical constructions</td>
<td>57.1%</td>
<td>32.7%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>THEORETICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the functional parts of speech</td>
<td>0.36</td>
</tr>
<tr>
<td>Knowledge of the independent parts of speech</td>
<td>0.67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNOLOGICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to anticipate the use of different parts of speech according to their function</td>
<td>0.88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>METHODOLOGICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to independently study educational literature in order to learn new grammatical constructions</td>
<td>1.12</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>THEORETICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the functional parts of speech</td>
<td>3.78</td>
</tr>
<tr>
<td>Knowledge of the independent parts of speech</td>
<td>4.67</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNOLOGICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to anticipate the use of different parts of speech according to their function</td>
<td>7.80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>METHODOLOGICAL CRITERION</th>
<th>Chi-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to independently study educational literature in order to learn new grammatical constructions</td>
<td>10.8</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Criteria for the level of written foreign language competence</th>
<th>Mean</th>
<th>Reliability criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mann–Whitney U test</td>
</tr>
<tr>
<td>1 Mastery of ways to control foreign written expressions depending on the communicative situation</td>
<td>2.01</td>
<td>2.55</td>
</tr>
<tr>
<td>2 The level of sociocultural competence</td>
<td>0.88</td>
<td>2.00</td>
</tr>
<tr>
<td>3 The level of linguistic competence</td>
<td>1.24</td>
<td>2.33</td>
</tr>
<tr>
<td>4 High learning motivation</td>
<td>1.80</td>
<td>2.60</td>
</tr>
<tr>
<td>5 Adequate self-assessment of the performance</td>
<td>2.35</td>
<td>2.71</td>
</tr>
</tbody>
</table>

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≤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.

7. Bibliographic references


