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УДК 378.4:378.016:811.161.2:37.011.3-51

ОРГАНІЗАЦІЯ ДІАГНОСТУВАЛЬНОГО ЕТАПУ ЕКСПЕРИМЕНТАЛЬНОЇ ПЕРЕВІРКИ ЕФЕКТИВНОСТІ МЕТОДИЧНОЇ СИСТЕМИ НАВЧАННЯ УКРАЇНСЬКОЇ МОВИ ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ

Анотація. Стаття присвячена опису діагностувального етапу експериментальної перевірки ефективності методичної системи навчання української мови за професійним спрямуванням. Виконання поставлених завдань відбувалося у контексті викладання навчальної дисципліни студентам спеціальностей 012 «Дошкільна освіта» і 013 «Початкова освіта». Матеріали, наведені в публікації, становлять частину експериментального дослідження, відображеного в докторській дисертації авторки «Методична система навчання студентів української мови за професійним спрямуванням у педагогічних закладах вищої освіти».

Перебіг дослідження зумовив використання системно-структурного та описового методів для розкриття загальних організаційних аспектів реалізації діагностувального етапу експерименту. Теоретичні методи аналізу, синтезу, узагальнення і конкретизування застосовано для обґрунтування структури й особливостей оцінювання тестових завдань для рівневої характеристики за когнітивно-мотиваційним критерієм, а також для визначення основних недоліків у роботах студентів. Метод тестування забезпечив здобуття кількісних показників. Для рівневого розподілу та кількісного аналізу результатів використано математичні методи. Візуальні методи застосовано в процесі відображення результатів вимірювання у табличній формі.

У контексті виконання завдань дослідження сформульовано мету й завдання діагностувального етапу експериментального дослідження ефективності методичної системи навчання української мови за професійним спрямуванням. Обґрунтовано вибір критеріїв оцінки визначених компетентностей, описано заходи, вжиті для забезпечення достовірності результатів дослідження.

У процесі змістового аналізу результатів тесту в роботах студентів виокремлено основні недоліки теоретичного плану, а також лінгво-когнітивної підготовки майбутніх фахівців. Враховуючи форму та умови проведення тестування авторка висловила припущення про відсутність або низький рівень мотивації здобувачів освіти до мовно-професійного вдосконалення, що потребує додаткової перевірки.

Ключові слова: дискурсивна компетентність, діагностувальний етап, документознавча компетентність, загальнонаукова компетентність, інформаційно-технологічна компетентність, когнітивно-мотиваційний критерій, компетентісна парадигма, констатувальний зріз, методична система, мовна освіта, педагогічний експеримент, підприємницька компетентність, редакторська компетентність, термінологічна компетентність, тест, українська мова за професійним спрямуванням.

ORGANIZING THE DIAGNOSTIC STAGE TO EXPERIMENTALLY TEST THE EFFECTIVENESS OF THE METHODOICAL SYSTEM OF TEACHING UKRAINIAN LANGUAGE FOR PROFESSIONAL PURPOSES

Abstract. The article describes the diagnostic stage of experimentally verifying the effectiveness of the methodical system of teaching Ukrainian Language for Professional Purposes. The tasks were completed in the context of teaching the discipline to students of specialties 012 Preschool Education and 013 Primary Education. The materials presented in this publication are part of the experimental research reflected in the author's doctoral dissertation Methodical System of Teaching Ukrainian Language for Professional Purposes to Students at Pedagogical Institutions of Higher Education.

The course of the study has led to the use of the systemic, structural, and descriptive methods to reveal the general organizational aspects of implementation of the experiment's diagnostic stage. The theoretical methods of analysis, synthesis, generalization, and specification were used to substantiate the structure and features of the assessment of test tasks for level characterization by the cognitive and motivational criterion, as well as to identify the main shortcomings in students' works. The testing method provided quantitative indicators. Mathematical methods were used for level distribution and quantitative analysis of the results. Visual methods were used in the process of displaying the measurement results in the tabular form.

In the context of fulfilling the objectives of the study, the aim and tasks of the diagnostic stage of the experimental research into the effectiveness of the methodical system of teaching Ukrainian Language for Professional Purposes have



been formulated. The choice of criteria for assessing the identified competencies has been substantiated, and the measures taken to ensure the reliability of the research results have been described.

In the course of the content analysis of the test results, the main shortcomings of the theoretical plan and the linguistic and cognitive training of future specialists were identified in the students' works. Taking into account the form and conditions of the test, the author suggests that there is no or a low level of motivation of students for linguistic and professional improvement, which requires additional verification.

Keywords: discursive competence, diagnostic stage, documentary competence, general scientific competence, information technology competence, cognitive and motivational criterion, competence paradigm, ascertaining evaluation, methodical system, language education, pedagogical experiment, entrepreneurial competence, editorial competence, terminological competence, test, Ukrainian Language for Professional Purposes.

INTRODUCTION

The problem formulation. The Ukrainian language is the main feature of the national identity of Ukrainians. In the context of the centuries-long struggle for Ukraine's independence and sovereignty, language education has always helped to consolidate society around common values, history, and culture. The spread of the Ukrainian language through the education system contributes to the strengthening of statehood, which is especially important in today's realities. Under the conditions of hybrid warfare, language education has become a tool to counteract information manipulation. Knowledge of the Ukrainian language allows citizens to consume information from reliable sources, avoiding disinformation and propaganda, which are often spread in illiterate Ukrainian or other languages.

Since the only discipline aimed at improving Ukrainian language competencies in the educational programs of higher education institutions for the training of specialists in the vast majority of specialties is Ukrainian Language for Professional Purposes, the problem of improving the methodical system of teaching this educational component is becoming more relevant. The research was conducted in the system of training future specialists in the field of education, in particular, specialties 012 Preschool Education and 013 Primary Education, and was completed in 2023.

Analysis of recent research and publications. In view of the growing need for competent language and professional training of future teachers, specifically preschool and primary school teachers who are native speakers of exemplary Ukrainian for children of preschool and primary school age, this issue is increasingly becoming the subject of research by Ukrainian scholars.

The analysis of the scientific information space has shown that over the past 5 years (2020-2024), attention has increased to the methodology of teaching Ukrainian Language for Professional Purposes in terms of forming the information, digital, and media competence of students (O. Baranovskiy, L. Byvalkevych, O. Bezliudnyi, O. Isakova, L. Yermenko, O. Zimonova, M. Korzh, S. Kravchuk, Z. Shumeiko, et al.). The problem of forming the communicative competence of students of different specialties during the study of Ukrainian Language for Professional Purposes remains in the spotlight of pedagogical research (O. Antonchuk, T. Boichuk, S. Hrytsyshyn, K. Kozub, N. Kolesnyk, O. Medvedieva, I. Nahrybelna), as well as the improvement of the culture of students' professional speech (Yu. Buhayevska, V. Budianska, I. Holubovska, L. Shlieina) and their rhetorical skills (O. Hordienko, L. Hromyk, N. Didenko, M. Kovalyk, I. Tymchuk, V. Yukalo), etc.

At the same time, we can observe the emergence of scientific works focused on the peculiarities of distance learning of Ukrainian Language for Professional Purposes (I. Babii, O. Hevko, N. Holiardyk, N. Didenko, I. Zhytar, V. Kotsar, L. Suheiko, A. Yaremko), interdisciplinary integration (I. Humeniuk, S. Karpenko, T. Kravchenko), teaching chat etiquette, culture of online communication (S. Pohorila, Y. Rudenko, I. Tymchuk), development of meta skills and soft skills (O. Maksymets, O. Pidlisetska, S. Pohorila, V. Samoilenko, I. Tymchuk, T. Shulichenko), formation of students' national consciousness (V. Kurylo, T. Leshchenko), use of non-formal education platforms to improve the quality of learning Ukrainian Language for Professional Purposes (H. Kozachenko). As we can see, the latest topics of scientific research in the context of methods of teaching Ukrainian Language for Professional Purposes are driven by the socio-political situation in Ukraine, the formal conditions of the educational system and profound changes in the minds of Ukrainians, for whom the importance of the Ukrainian language has become obvious not only for successful professional self-realization, but also for preserving national identity.

The research work carried out to reveal the problem of forming an effective methodical system for teaching Ukrainian Language for Professional Purposes has shown that thorough research in this area has not yet been implemented not only for future specialists in the pedagogical field, but also in any other (Humeniuk, 2021). Accordingly, no pedagogical experiments have been implemented that are in line with the topic of the article. In this context, we consider it necessary to highlight the peculiarities of organizing the diagnostic stage of the pedagogical experiment reflected in the author's doctoral dissertation Methodical System of Teaching Ukrainian Language for Professional Purposes to Students at Pedagogical Institutions of Higher Education.

RESEARCH AIM AND TASKS

The diagnostic stage is critical for ensuring the scientific validity and objectivity of the results of a pedagogical experiment. It creates a basis for accurate measurement of changes caused by pedagogical influence and allows to draw reliable conclusions about the effectiveness of the proposed methods and approaches. With this in mind, the purpose of the study is to reveal the algorithm for conducting the diagnostic stage of the pedagogical experiment with a detailed analysis of the measurement process according to the cognitive and motivational criterion.

To achieve this aim, a number of specific tasks have been identified:

- 1) revealing the general organizational aspects of implementing the diagnostic stage of the experiment;



2) substantiating the structure and specifics of evaluating test tasks for level characterization by the cognitive and motivational criterion;

3) performing a level distribution and quantitative analysis of the test results with an emphasis on the main shortcomings.

RESEARCH METHODS

The course of the study has led to the use of the systemic, structural, and descriptive methods to reveal the general organizational aspects of implementation of the experiment's diagnostic stage. The theoretical methods of analysis, synthesis, generalization, and specification were used to substantiate the structure and features of the assessment of test tasks for level characterization by the cognitive and motivational criterion, as well as to identify the main shortcomings in students' works. The testing method provided quantitative indicators. Mathematical methods were used for level distribution and quantitative analysis of the results. Visual methods were used in the process of displaying the measurement results in the tabular form.

RESULTS OF THE RESEARCH

The purpose of the diagnostic stage of the experimental research into the methodical system of teaching Ukrainian Language for Professional Purposes was to establish the initial level of future teachers' general ability to perform professional activities by measuring the state of formation of competencies defined in the competence paradigm of the discipline Ukrainian Language for Professional Purposes (Humeniuk, 2019).

The aim necessitated solving the following tasks:

- development of criteria and indicators of formation covering all measurable competencies;
- creating a set of exercises and tasks for diagnosing the formation of discursive, documentary, general scientific, information technology, entrepreneurial, editorial, and terminological competencies;
- measuring the current state of development of certain competencies and ranking the results by level;
- identifying the initial level of ability of future specialists in pedagogy to solve complex specialized tasks and practical problems in professional and pedagogical activities according to the developed criteria;
- defining the factors that impede the effective formation of students' competencies in the process of teaching Ukrainian Language for Professional Purposes.

Based on the analysis of modern scientific works in the field of pedagogical diagnostics (Honcharenko & Horbachuk, 2012; Pidlasnyi, 1998; Sliusar, 2014), the criteria and indicators have been developed, the levels have been characterized, and the strategy for organizing research activities, as well as forms and methods of diagnostics that meet the purpose of the diagnostic stage of the experimental study, have been selected.

The choice of criteria for assessing the formation of certain competencies (cognitive and motivational, operational and activity-based, professional and creative), their indicators and levels is justified in the author's previous publications. «The cognitive and motivational criterion is singled out to illustrate the formation of the knowledge-oriented, professional and motivational components of students' training, which cover the system of interdisciplinary content connections in the theoretical block of the discipline Ukrainian Language for Professional Purposes, as well as a comprehensive vision of the possibilities and necessary options for applying the acquired knowledge in the practical activities of a teacher and in the motivated work to improve skills, abilities, and eliminate shortcomings» (Humeniuk, 2014)

The ascertaining evaluation was conducted in the conditions of the real educational process at the beginning of the study of Ukrainian Language for Professional Purposes in the 2020/2021 academic year. The reliability of the research results at this stage is ensured by establishing the minimum required size of the sample population of the experiment participants, the number of students in the control (CG) and experimental groups (EG), compliance with certain pedagogical conditions in each group, the representativeness of the sample, which is formed taking into account the field of knowledge and specialty in terms of quantitative ratio, and its randomness.

From the established general population, a sample was formed for the ascertaining evaluation, which included 480 students from various Ukrainian higher education institutions. This figure exceeds the statistically proven minimum required number to ensure the accuracy and representativeness of the study results (Humeniuk I. & Humeniuk M., 2024). The experimental group included 238 students, the control group - 242 students.

In accordance with each criterion, a set of tasks has been developed to determine the levels of formation of the necessary competencies of students at the beginning of learning Ukrainian Language for Professional Purposes: test tasks for level characterization by the cognitive and motivational criterion, a system of exercises for assessing the levels of competencies by the operational and activity-based criterion, a set of tasks in Ukrainian Language for Professional Purposes for diagnostics by the professional and creative criterion. To find out the motivational and value position of students regarding the role of oral and written professional speech in the professional development of a future teacher, the methods of diagnosing a personality for motivation to professional and communicative improvement were selected.

Test tasks for level characterization by the cognitive and motivational criterion belong to the closed-ended type of tests and are designed on the principle of balancing complexity: 25 % of the tests are of low difficulty, 25 % are of high difficulty, and 50 % are of medium difficulty. Each test task has only one correct answer, which is assigned according to the following criteria: correctness in terms of content, accuracy of wording, and completeness of disclosure. To diagnose the formation of all the competencies identified in the study, the test was structured as follows: 8 tests to diagnose the levels of formation of each competence, including 4 tests of medium difficulty, 2 of low, and 2 of high difficulty. Evaluation: correct answer - 1 point; the calculation was carried out according to a dichotomous scheme; the percentage of levels is shown in Table 1.



Table 1

Evaluating a Test for Level Characterization by the Cognitive and Motivational Criterion

Levels	Points	Scores in %
Sufficient	From 42 to 56	75% – 100%
Satisfactory	From 15 to 41	26% – 74%
Initial	From 0 to 14	0% – 25%

Source: developed by the author according to (Kartashova & Prokhorenkov, 2013).

As can be seen from Table 1, the test performance at the initial level is quantitatively (in %) ensured by tests of low difficulty, at the sufficient and satisfactory levels, respectively. The test was approbated ($n = 62$), and retest reliability was checked (Test-Retest Reliability method) with an interval of 3 academic weeks. Repeated use of the same test for the same audience under the same conditions yielded a result of $p > 0.06$, which confirms the absence of significant differences and meets the basic requirement of retest reliability (E. Carmines & R. Zeller, 1979, 11-120). The validity of the assessment results is ensured by the adequacy of the content of the test tasks to the purpose of testing, the coverage of the entire content of the discipline Ukrainian Language for Professional Purposes by the tests, the correctness of the wording and the absence of hints in the answers, the ratio of tasks of different difficulty levels, the presence of clear instructions, and the avoidance of subjectivity in the assessment through the use of modern information and communication technology.

The quantitative analysis of the test results of the EG and CG students has permitted the author to make a level distribution according to the cognitive and motivational criterion, visualized in Table 2.

Table 2

Level Distribution of Test Results at the Diagnostic Stage (Cognitive and Motivational Criterion)

Groups	Levels					
	Sufficient		Satisfactory		Initial	
	persons	%	persons	%	persons	%
EG	51	21,4	103	43,3	84	35,3
CG	54	22,3	110	45,5	78	32,2

Source: compiled by the author based on test results.

As can be seen from Table 2, the results of testing according to the cognitive and motivational criterion showed the prevalence of a satisfactory level in both EG and CG (43.3 % and 45.5 %, respectively), while the indicators of the initial level are considered high (35.3 % - EG, 32.2 % - CG). A small number of respondents reached the sufficient level: 21.4 % - in the EG, 22.3 % - in the CG. This manifested itself in the shortcomings of the theoretical plan: a lack of general linguistic knowledge (features of the literary language, understanding the functions of language and speech), basics of document management (writing an application, autobiography, explanatory note, arranging essential elements), some aspects of scientific activity (bibliographic description, types of scientific papers), knowledge of terminology (types of terms, ways of creating them), technical rules of hyphenation, linguistic and technological features of the printed text, basics of editing.

While the aforementioned shortcomings were predictable and can be explained by the lack of appropriate training in general secondary education institutions, other aspects of the test are worrisome because they relate to the linguistic and cognitive training of future specialists, their ability to perform logical thinking operations. In particular, the respondents had considerable difficulty with the tasks on applying logic in the construction of statements and types of cognitive activity (determining the cause of a communicative failure, analyzing the text to determine the main idea, formulating the purpose of the work on a given topic, determining the type of errors in the text, etc.).

The students showed an initial level of development of skills in stylistic selection of language means, transfer of theoretical provisions to the practical plane, which caused a significant number of spelling, grammar, and punctuation errors. Accordingly, we observe poorly developed skills in editing Ukrainian-language texts.

Taking into account the form of testing (using the Google Forms service) and the possibility of using auxiliary materials during the tests, we assume the absence or low level of motivation for linguistic and professional improvement, lack of awareness of the dependence of professional success on the mastery of linguistic and pragmatic aspects of speech among the respondents with the initial and satisfactory levels according to the cognitive and motivational criterion.

CONCLUSIONS AND PROSPECTS OF FURTHER RESEARCH

Language education in Ukraine is a strategically important factor in building a sustainable, cohesive, and democratic society. It performs not only an educational, but also a socio-political function, strengthening national identity and contributing to the cultural and economic development of the country. The successful implementation of language policy through education is a key condition for further strengthening Ukraine's independence and sovereignty. Therefore, it is necessary to intensify the work on improving the methodical systems of teaching the Ukrainian language to students of different levels, including future professionals in the field of education.



Methodical innovations require experimental verification in accordance with the algorithm of the pedagogical experiment, an essential part of which is the diagnostic stage. The conducted diagnostics of the levels of students' competencies studied according to the cognitive and motivational criterion made it possible to determine the state of formation of the knowledge (general theoretical, linguistic and cognitive) component of students' training in the content of the discipline Ukrainian Language for Professional Purposes, as well as to naturally assume a low level of the professional and motivational component. Our further scientific publications will be devoted to verifying this assumption.

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Received 07.10.2024
Accepted 22.10.2024