TESTING OF GENERAL EDUCATIONAL COMPETENCIES IN HIGHER EDUCATION: LOGICAL AND METHODOLOGICAL PRINCIPLES AND INFORMATION AND TECHNOLOGICAL SUPPORT

Yurkevych O. M., Pavlenko Zh. O.

INTRODUCTION

Modern civilization is characterized by an increasingly deep division of labor, role interaction regulated by a management system that is gradually formalized and complicated. Such characteristics testify to the growth of rationality in the conscious plane of social life, which determines the level of civilization of society as a whole. This level became achievable thanks to the development of European science and education. The modern European educational space is formed, in particular, with the participation of Ukraine as a new member. In turn, the development of science and education in Ukraine is influenced by the civilizational needs of society, where there are demands for constant improvement of human thinking, its rigor and accuracy, adequacy of content and correctness of conclusions. And this requires the development of methodology. Among the existing methodological tools, one of the most important is logical. Contemporaries noted the deep influence of the achievements of logical science on the development of human thinking even in the time of Aristotle, and this influence of logical knowledge remains relevant for modern humanity. This influence is especially important in professional circles. The modern Argentinian researcher of logic and philosophy of law E. V. Bulygin noted that «in the period from the IV century n. e. to the 19th century n. e., that is, for more than two millennia, it was logic that influenced legal thinking. At the heart of this influence was Aristotle with his theory of deductive reasoning (syllogism) and theory of science (axiomatic system), which had a very deep impact on thinking in general and on legal thinking in particular»[1]. In the modern world, this influence deepens. Logic appears as a methodology used to implement the principle of reasonableness in both law and other scientific fields and scientifically supported practices. The origin of the definition of the principle of reasonableness of law is connected with Anglo-American law, where it began to be developed in the meaning of a person's ability to consciously achieve his interests in society, based on his own intellectual capabilities. This principle is universal for modern intellectual culture. The concept of intelligence is oriented to at least

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[1] Булыгин Е.В. Логика и право. *Правоведение*. 2013. № 4 (309). С. 12.

the average level of development of human intelligence. Guaranteed development of intelligence is associated with the need to constantly measure the level of intellectual development of specialists. Such measurement has become an important modern task of higher education, starting with legal education. Knowledge of logic is as important as knowledge of legal laws, moral standards, specialized subjects from various scientific fields, etc. This is noted by lawyers and specialists of other specialties. Logic has a methodological significance for both theoretical and applied science, where specialists use perfect forms, the strongest and most effective logical techniques, which is necessary for professional application taking into account its social significance.

In this aspect, it will be correct to decide on the need to study logical knowledge as a methodological toolkit for constructing tests of educational competence (hereinafter TEC) with the aim of obtaining conclusions regarding the requirements for a certain level of intellectual development in professions provided with higher education, and using the opportunities of new technologies in education for reaching this level.

1. Theoretical sources and methodological support of the concept of testing the level of development of intellectual abilities

A number of works were devoted to the issue of developing the concept, program and specification of TEC and studying the foreign experience of testing entrants to institutions of higher education, in particular law schools, and the feasibility of its implementation in legal education in our country. The outlined problems are reflected in the works of such domestic scientists as: V. Bryukhovetskyi[2], V. Bugrov[3], T. Vakulenko[4], O. Vashulenko, V. Horokh[5], O. Kiriyenko, V. Kovalchuk, S. Lomakovich[6], A. Milyanik , V. Puzyryov,

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[2] Брюховецький В.С., Кирієнко О.В., Ковальчук В.М. Дослідження ефективності реорганізаційних кроків у процедурі вступу до вищих навчальних закладів України на прикладі Києво-Могилянської академії. *Вісник. Тестування і моніторинг в освіті*. 2011. № 7. С. 23–31.

[3] Бугров В.А. Порівняльне дослідження вхідного рівня підготовленості студентів 1 курсу і результатів ЗНО. *Вісник. Тестування і моніторинг в освіті*. 2011. № 4. С. 13–15.

[4] Вакуленко Т.С. Світовий досвід використання тестів здатностей при вступі до ВНЗ. *Вивчаємо українську мову та літературу: наук.-метод. журн.* 2012. № 12 (304). С. 35–37.

[5] Терещенко В.М., Раков С.А., Горох В.П., Ломакович С.В., Вакуленко Т.С. Обґрунтування відповідей до завдань апробаційного ТЗПНК. *ТІМО. Тестування і моніторинг в освіті*. 2016. № 4–5. С. 37–45.

[6] Ломакович С.В., Терещенко В.М., Лук'янчук Т.О., Корнійчук В.С. Вербально-комунікативна компетентність особистості: виміри й вимірювання. *Вісник. Тестування і моніторинг в освіті*. 2011. № 1. С. 4–15.

S. Rakov[7], L. Ryabovol[8], V. Tereshchenko[9] and others. The works of I. Matyushina, Zh. Pavlenko[10], O. Tyaglo[11], O. Shcherbyna[12], O. Yurkevich[13] and others are devoted to the study of logical knowledge as a methodological toolkit for building tests of general educational legal competence (TGELC). A number of socio-philosophical, logical-epistemological, philosophical-legal, cognitive-informational works were devoted to the study of the problems of intellectualization of society, the creation and introduction of new technologies based on the effective use of the main strategic resource of society – knowledge, in our country. In particular, this problem was dealt with by: V. Andrushchenko, I. Boychenko, A. Konverskyi, S. Krymskyi, V. Kusherets, A. Uyomov, O. Danilyan, O. Dzoban, and others. The productive value of knowledge in the development of society and its impact on the individual have become the subject of analysis by many scientists abroad, in particular from the information and technological direction: I. Mitsura, S. Osuga, K. Shenon, I. Haruki, and representatives of the theory of post-industrial and information society: D Bell, Y. Masudi, E. Toffler, F. Fukuyama and others.

In the conditions of the formation and development of the digital society, one of the main indicators of the economic stability of the country is the obtaining of high-quality higher education, which is ensured by the

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[7] Раков С.А., Вашуленко О.П., Горох В.П., Миляник А.І., Пузирьов В.В. Три виміри логіко-математичної компетентності. *Вісник. Тестування і моніторинг в освіті*. 2009. № 12. С. 7–16; Раков С., Терещенко В. Впровадження тесту загальної навчальної правничої компетентності (ТЗНПК) як спосіб підвищення ефективності та справедливості відбору вступників на магістерські програми за спеціальностями 081 «Право»«. *Право України*. 2017. № 10. С. 120–129; Ляшенко О.І., Раков С.А. Тест загальної навчальної компетентності: основні засади і результати пілотування. *Педагогіка і психологія*. 2012. № 2. С. 27–35.

[8] Рябовол Л.Т. Тестування загальної навчальної правничої компетентності (ТЗНПК): деякі дискусійні аспекти проблеми. *Часопис Київського університету права*. 2018. № 2. С. 340–345.

[9] Ломакович С.В., Терещенко В.М. Вербально-комунікативна складова загальної навчальної компетентності та її вимірювання. *Педагогіка і психологія. Вісник НАПН України*. 2012. № 2 (75). С. 40–48.

[10] Юркевич О.М., Павленко Ж.О. Підготовка до складання ТЗНПК в завданнях та рішеннях: логічний підхід: навчальний посібник (видання четверте, доповнене та перероблене). Харків: Контраст. 2022. 236 с.

[11] Тягло А.В. Критическое мышление на основе элементарной логики: учеб. пособие. Харьков: ХНУ имени В.Н. Каразина, Издательский центр. 2001. 210 с.

[12] Щербина О.Ю. Логічне моделювання та юридична аргументація. *Вісник Київського національного університету імені Тараса Шевченка. Філософія. Політологія.* 2014. Вип. 1. С. 50–53.

[13] Юркевич О.М., Павленко Ж.О. Логіко-методологічні засади вимірювання рівня розвитку інтелектуальних здібностей. *Міжнар. наук. конф. «Дні науки філософського факультету – 2017»* (Київ, 24–25 квітня 2017 р.). Київ, 2017. С. 288–290.

introduction of the latest information technologies into the educational process, in particular, the use of electronic courses based on the MOODLE platform. In general, it can be noted that the systematic scientific understanding of the complex, comprehensive and multifaceted problem of researching logical knowledge as a methodological toolkit for the construction of TEC is only at the initial stage. Therefore, it is relevant to study individual aspects of the use of logical methodology and methods of solving TECs, a technological approach to logical knowledge for the creation of a modern electronic course that meets today's requirements and contributes to rethinking the practical value of logic for various specialties of universities.

Logical knowledge, especially the rules and laws of logic, criteria of truth in formal logic have become a benchmark as a platform that precedes the formation of legal norms and is a nominal «framework» for all legal forms in general. Traditionally, logical methods include the main methods of cognition – analysis and synthesis; logical methods of obtaining a conclusion – deduction, induction and analogy, which in modern research are supplemented by the method of abduction; methods of abstraction, etc.

Logical methods are used for modeling in the field of humanitarian knowledge, in the theory of argumentation, in particular for the theory and practice of legal argumentation. Thus, the logical form of the classical definition becomes the basis of the difinitive norm. The logical form of a judicial decision is modus Barbara of a simple categorical syllogism, which is called a judicial modus. The procedure for qualifying an offense has the logical form of a modus ponens conditional-categorical syllogism, it is often called a legal syllogism, and this modus becomes the core of the so-called «German style» in the European legal methodology of law enforcement. Thus, R. Tsippelius, explaining subsummation, writes: «When they say that a specific situation is qualified according to the abstract legal structure established by law, they mean legal considerations that have the form of a logical conclusion (modus ponens)»[14]. Modus tollens of a conditional-categorical syllogism is a logical form as a formal-logical standard of a legal norm, etc. This ratio of logical and legal forms and the norms of their construction is stable and allows to continue research with the expansion of the methodological significance of logical knowledge together with the methodology of testing for lawyers. Logical educational programs for lawyers also assume that logical knowledge is a necessary component of the general competencies of specialists in various specialties.

Among the intellectual competencies in modern higher education, three characteristics are distinguished: analytical thinking, logical thinking and critical thinking. Analytical thinking is understood as the ability to work with large volumes of information, to which it is necessary to apply the techniques

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[14] Ціппеліус Р. Юридична методологія: навч. посібник. Чернівці: Рута, 2003. 156–157 с.

of dividing the material into parts and further gradual research of each component. Logical thinking is the ability to think correctly, that is, in a definite, consistent and reasoned way, without allowing contradictions in one's reasoning, as well as to expose logical errors. Its feature is the ability to abstract from the concrete and generalize the essential in the subject, as well as, determining the grounds, to draw conclusions. That is, it determines a person's ability to analyze information for compliance with laws and methods of building correct reasoning. Critical thinking is a specific type of reflection, which is based on knowledge of the science of logic and the relevant subject area, in relation to which reasoning is constructed. Critical thinking helps to correctly navigate the constantly growing streams of professional information and find in them grounds for optimal decisions. The full cycle of critical thinking includes four interrelated phases: analysis – understanding – evaluation – criticism[15]. This is a special way of thinking that aims to evaluate ideas.

Among the latest requirements for the logical education of future specialists with higher education are the skills of complex problem solving (with the ability to combine logical forms and their elements), creativity (with awareness of the logical features of probable conclusions), the ability to independently make decisions based on correctly obtained conclusions, to lead negotiation (guided by communicative logic), flexibility in reasoning (as the ability to form justifications and obtain conclusions in several ways), etc. The awareness of the importance of logical knowledge for legal professionals at the current stage of the development of Ukrainian society caused the need to introduce a mandatory TGELC from 2017, which measures the degree of their development for law students upon admission to the master's degree[16]. Logical knowledge is the only theoretical-methodological basis of algorithms for constructing tests of educational competencies (TEC) for all characteristics of intellectual competencies in modern higher education, taking into account their logical relationship. From a logical point of view, analytical, logical and critical thinking as different general competences are different aspects of the same correct thinking, which should be carried out according to logical criteria of truth. The implementation of standardized educational measurements in higher education and the analysis of complex data provide new opportunities

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[15] Тягло А.В. Критическое мышление на основе элементарной логики: учеб. пособие. Харьков: ХНУ имени В.Н. Каразина, Издательский центр, 2001. С. 17.

[16] Раков С.А., Терещенко В.М. Тест загальної навчальної правничої компетентності (ТЗНПК) як блок єдиного фахового вступного випробування (ЄФВВ) у системі вступу на другий (магістерський) рівень вищої освіти за спеціальностями 081 «Право» та 293 «Міжнародне право». Інформаційні матеріали. Київ, 2019. С 17–18. URL: https://mon.gov.ua/storage/app/media/vishcha-osvita/vstup2019/2019/09/njtznpkbukletrozshireniy2019ukr1.pdf.

in the management of the quality of education[17], which requires as much as possible the development of students' skills of critical analysis, understanding, evaluation and criticism of the argumentation of some conclusion from this or that researched problem.

The structure of TGELC consists of three sections: analytical, logical and critical thinking. The purpose of the test tasks of the «Analytical thinking» section is to measure the student's ability to analyze data and the rules of their operation in order to determine what is true or what may be true. The purpose of the test tasks of the «Logical Thinking» section is to measure the student's ability to analyze, evaluate, and supplement judgments, reasoning, and arguments presented in natural language. The purpose of the test tasks of the «Critical Thinking» section is to measure the applicant's ability to effectively apply critical thinking skills when working with texts of various topics that are large in volume and complex in content[18]. The results obtained by lawyers both during the professional testing of general abilities and when students passed the TGELC from 2017 to 2021 inclusive throughout the country were not high: the maximum score was 30 points, the professional commission set the threshold score at the level of 8 points at the threshold value blind guessing 6 points. In particular, the statistical calculation of 2018 showed that about 12–13% of those who gave answers «blindly» passed the threshold score of 8[19].

[17] Скиба М.Є., Костогриз С.Г., Красильникова Г.В. Моніторинг якості навчального процесу у вищому закладі освіти. Хмельницький: ХНУ, 2009. 219 с.; Сергієнко В.П., Сорокіна Н.В. Теоретичні та методичні засади моніторингу якості вищої освіти. *Збірник наукових праць Кам'янець-Подільського національного університету ім. Івана Огієнка. Серія: Педагогічна.* 2013. Вип. 19. С. 119–124. URL: http://nbuv.gov.ua/UJRN/znpkp_ped_2013_19_44; Марцева Л.А. Тестування як фактор формування професійно важливих якостей майбутніх фахівців. *Науковий часопис Національного педагогічного університету імені М. П. Драгоманова. Серія 5: Педагогічні науки: реалії та перспективи.* 2013. Вип. 43. С. 131–138; Мізюк В.А., Коваленко О.В. Про один із підходів до комп'ютерного тестування навчальних досягнень студентів. *Науковий вісник Ізмаїльського державного гуманітарного університету. Серія: Педагогічні науки.* 2015. Вип. 33. С. 120–125. URL: http://dspace.idgu.edu.ua/jspui/bitstream/123456789/210/1/28.pdf.

[18] Раков С.А., Терещенко В.М. Тест загальної навчальної правничої компетентності (ТЗНПК) як блок єдиного фахового вступного випробування (ЄФВВ) у системі вступу на другий (магістерський) рівень вищої освіти за спеціальностями 081 «Право» та 293 «Міжнародне право». Інформаційні матеріали. Київ, 2019. С. 21–22. URL: https://mon.gov.ua/storage/app/media/vishcha-osvita/vstup2019/2019/09/njtznpkbukletrozshireniy2019ukr1.pdf.

[19] Мудрук С.О. Стандартизовані освітні вимірювання 2018 року у вищій юридичній освіті. Єдине фахове вступне випробування та Єдиний вступний іспит. Аналітичне дослідження. Київ: Ваіте, 2019. С. 10.

2. Logical knowledge and abilities as a methodological resource and professional skills, their information and technological support

The purpose of TEC is to assess the level of formation of the general educational competencies of an applicant for obtaining a master's level of higher education in the verbal-communicative and logical-analytical fields, therefore its components are structured within the limits of verbal-communicative and logical-analytical components. General educational competence (GEC) means the ability of an individual to adequately perceive and process information, to think logically, to understand the essence of connections between phenomena and objects of reality[20]. Learning competence is a competence of a higher cognitive level than the special or subject competences that a person exhibits in a specific field. TEC in Ukraine consists of students majoring in Law, International Law, Social and Behavioral Sciences, Journalism, Management and Administration; «Public management and administration»; «International relations», that is, students of the most popular humanitarian, so-called conjunctural specialties.

In a generalized form, the following types of tasks can be distinguished in the test notebooks: 1) checking knowledge from the logic course on the following topics: judgments, syllogisms, non-deductive inferences, proofs and refutations (logical-analytical component); 2) logical puzzles: location; truth – falsity (logical-analytical component); 3) numerical test: analysis, processing, transformation of information provided in tabular, graphic, symbolic, numerical, textual form, problems of combinatorial content, determination of percentages, probabilities of events, statistical characteristics of random variables, set theory (logical-analytical component); 4) reading comprehension (verbal-communicative component): restoration of the logical meaning of a sentence, ability to understand information in texts in conditions of time shortage. The analysis of the results of the previous TGELC and TEC makes it possible to assert that the level of thinking culture of students of higher education institutions of humanitarian specialties needs to be improved. It should be noted that all test tasks have cumbersome conditions, including due to information noise and are solved in conditions of time shortage. Therefore, logicians faced the task of finding effective methods of using theoretically grounded skills of analysis, understanding, evaluation and criticism of problematic reasoning. The first step on this path is the formation of skills in using the formalization method for data coding and mastering

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[20] Програма ТЗНК ЄФВВ для вступу на навчання для здобуття ступеню магістра: Наказ МОН України від 11.02.2022 р. № 158. URL: https://mon.gov.ua/storage/app/media/vishcha-osvita/vstup-2022/Prohramy-YEFVV/Zatverdzheni.prohramy.YEFVV/11.02/Pro.zatv.Prohr.predm.TZNK-nalaz-158-11.02.2022.pdf.

elementary knowledge from a formal-logical point of view about concepts, methods of their definition and transformation, judgments about them and the structure of evidentiary reasoning. To formalize information in the conditions of the tasks and in the answers to the test questions, it is necessary to use the language of the logic of statements. To solve some problems, it is necessary to formalize the answers and use the simplest transformations of classical formulas. Tasks are solved by logical methods using tables, graphs, diagrams, elementary calculations, etc. In a generalized form, the stages of solving tasks for logical-analytical thinking can be presented as follows: coding of information that makes up the conditions of the task; coding of the information contained in the questions for the assignment; coding of information related to answers to test questions; choosing the most elementary method of solving a specific task (according to the conditions): using tables, graphs, Euler-Venn diagrams, algebraic equations, etc.; providing answers to questions.

Logical-structural analysis of verbal texts reveals the logic of meaning and can be carried out at different levels of «depth». This involves the use of certain logical tools. First of all, when analyzing texts, knowledge of the logical theory of argumentation is necessary. Thus, in many test tasks, the question is asked about the definition of the elements of the structure of argumentation – theses, arguments, demonstration (justification). The thesis in the tasks is often marked as the «main idea» of the text and it is suggested to choose the one containing the relevant judgment (thesis) from the proposed answers[21]. To choose the correct answer, it is necessary to use the law of identity, according to which any thought within a certain reasoning must remain identical to itself. The defining logical characteristic of the «main idea» of the text will be its scope, which should be the widest in the text and absorb the scope of other concepts. Tasks in which it is necessary to establish an antithesis or counterarguments will be opposite in their methodology. Another important logical tool for solving critical thinking tests is knowledge of implication. An implication is a causal connection between ideas, which can be in such different logical forms as: complex implicative judgments, purely conditional syllogism, conditional-categorical syllogism, conditional-partial syllogism, and in substantiating the evidentiality of an argument or refutation. Generalized logical knowledge of implication is a method of constructing test tasks of a certain type, as well as a method of solving the same tasks. That is, the logical methodology is common both for the authors of the created tests and for those who solve them. The next type of test tasks are those that contain the questions of establishing the logical meaning of truth

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[21] Юркевич О.М., Павленко Ж.О. Підготовка до складання ТЗНПК в завданнях та рішеннях: логічний підхід: навч. посібник (видання четверте, доповнене та перероблене). Харків: Контраст, 2022. С. 164.

and error. For a legal specialist, distinguishing between truth and error, that is, logically correct and incorrect, as well as valid and false, is a significant professional intellectual trait. Therefore, the criteria of logical truth are a universal method of logical assessment for all subjects of thought. Test tasks in which you need to correctly compare, draw an analogy and determine the degree of probability are also typical. To conduct an analogy, first of all, it is necessary to establish the essential features of the objects being compared and to determine which of the answers will be the most likely. The list of methodological tools can be continued, but these examples are enough to understand the importance of logical knowledge regarding the construction of test tasks to determine the level of development of intellectual abilities of bachelors, as well as to solve them.

With the aim of introducing into training a modern information system that automates the process of preparing users for taking a psychometric test, the authors of the article created a database based on the MOODLE platform «Logic: a workshop on training for testing educational competencies»[22], designed to increase the effectiveness of the educational process through the use of means of the latest information technologies. This database aims to develop a person's logical thinking culture and is developed taking into account the standard structure of tests for determining intellectual abilities. It contains special tasks and exercises to improve the abilities of perception, attention, memory, various aspects of thinking. The information is placed in the following meaningful blocks: 1. Analytical thinking; 2. Logical thinking; 3. Critical thinking; 4. Online preparation for external examinations based on test books (since 2017); 5. Reference information (test books 2016 – 2022 and keys to them); 6. Information sources.

The meaningful blocks «Analytical thinking», «Logical thinking» and «Critical thinking» contain theoretical and methodological material for preparing for TEC and tasks for the corresponding block, as well as examples of solving typical problems and practical exercises in the form of test problems for ongoing control.

The theoretical-methodical material in the relevant content block of the database, the access to which allows the user to pass the training test at the appropriate level, represents a sequence of pages that contain very concise theoretical information on the key issues of the relevant practical exercise. After processing each theoretical question, the database user must answer the test tasks of the corresponding lesson.

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[22] Свідоцтво про реєстрацію авторського права на твір №114970, 26.09.2022 р. База даних «Логіка: практикум із підготовки до тестування навчальних компетентностей» / О. Г. Данильян, Ж. О. Павленко, О. М. Юркевич та ін. URL: https://neik.nlu.edu.ua/moodle/course/view.php?id=1.

The authors of the course compiled a database of test tasks, which can then be used in various tests. Test tasks for more convenient work are combined into meaningful blocks according to the topic of the practical lesson. To assess the knowledge of course users, a certain number of questions in the form of tests are automatically generated from the bank of test tasks for each block. All test items are graded automatically. When changing the task, the test can be re-evaluated. The teacher can define various restrictions on working with the test: the beginning and end of the test, the number of attempts, time delays between attempts, access password, access only from certain network addresses. When performing further attempts, previous answer options may be taken into account. Both test questions and answer options are automatically shuffled with each new attempt. Closed-ended questions are supported, which provide an opportunity to choose one of four answer options. There are different options for scoring and grading.

Testing for the final control of the course is as close as possible in structure to educational or professional tests, contains three sections, in which the tasks are structured within the limits of verbal-communicative and logical-analytical components.

CONCLUSIONS

Changes in social practice raised questions about the urgent and proper preparation of students and specialists of various fields of study for new challenges. The answer to this question lies in the definition of an effective methodology and technique for preparing students for psychometric testing. Logic by its purpose is not only a universal method of constructing new knowledge. It is the only language in the terms of which the long-awaited great synthesis of mathematical, natural and humanitarian sciences is most likely. Teaching logic, taking into account modern requirements, cannot fail to take into account urgent changes in its development and teaching, revision of its place in the system of general scientific knowledge. That is, at the time of reformatting of logic programs and disciplines of the logical cycle in institutions of higher education, which until now performed uncharacteristic functions of primary logical education, and reorientation of the teaching of these disciplines from purely theoretical (mainly) to practical aspects. In addition, when developing a new training program, considerable attention should be paid to the methods of training a person who is preparing for taking tests, his use of general knowledge and all time-saving techniques. That is, it is advisable to add to the program tasks aimed at improving the abilities of perception, attention, and memory, namely exercises according to Schulte's tables, for analyzing numerical information, restoring logical sequences, comparing concepts, in particular, analogies, restoring statements. The main

attention when teaching the topics of the course should be paid primarily to the following features of human behavior: the sequential and operational nature of the formation of intelligence; combinatorial, probabilistic, informational and behavioral aspects of a person's intellectual actions; a significant percentage of non-deductive inferences in reasoning. This makes it possible to propose a single algorithm for the analysis of initial information (inferences), which will allow solving both deductive and non-deductive tasks and is close to the one used by both a novice and an expert in this field. All of the above-mentioned features require teaching traditional and symbolic logic in a new way with the involvement of opportunities provided by modern educational technologies, presenting their content in the form of sequentially connected levels of formation of a single intelligence, and expanding the content of logic as an educational discipline with the following sections: analysis, understanding, evaluation of reasoned reasoning, criticism of argumentation, decision-making, conflict resolution, etc. This will allow logic to be involved in the general flow of modern humanitarian and natural science research, to bring it to a qualitatively new level of development.

SUMMARY

This section examines the use of logical knowledge as a methodological tool for constructing and solving educational competency tests (TECs), which were implemented in higher legal education for the selection of entrants to master's programs in the field of law (as TGELC), and at present this practice has spread to other areas of humanitarian education. For the first time in Ukraine, in accordance with the requirements of modern society, on the basis of the MOODLE platform, an electronic course «Practical logic: training of intellectual abilities» was created and implemented in training for preparation for entrance exams for master's programs in the specialty 081 «Law». It proposes a generalization of logical methodology and methods of solving test tasks according to their typology, as well as reinterpreted the practical value of logic for successful passing of testing according to the levels of formation of participants in general educational competence, which is understood as a certain level of development of intellectual abilities. The results of scientific and practical research are presented, which are outlined in the author's manual «Preparation for the preparation of TGELC in tasks and solutions: a logical approach»[23]. According to the principles of reasonableness of law, the specificity of the use of logical forms and methods implemented in legal methodology, their necessity as a toolkit in legal analysis and legal practice is

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[23] Юркевич О.М., Павленко Ж.О. Підготовка до складання ТЗНПК в завданнях та рішеннях: логічний підхід: навч. посібник (видання четверте, доповнене та перероблене). Харків: Контраст, 2022. 236 с.

determined. These principles with their certain modification are general for the implementation of any scientific methodologies and social practices. Conclusions were made regarding the importance of logical culture for successful completion of the TGELC, the need to re-evaluate logical education programs in universities and further development of logical knowledge in connection with the defined general intellectual competencies of a lawyer. As a result of our research, it was proven that e-courses based on the MOODLE platform have a positive effect on students' mastery of logical tools for solving TGELC and have a potential educational opportunity as an effective means of forming the professional competence of future masters of law. The authors associate the further development of educational information technologies with deepening awareness of the interaction of logical and specifically scientific forms, the spread of logical education, the constant introduction of new information technologies into the educational process, and the constant growth of the relevance of intellectual work in society.

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Information about the authors:
Yurkevych Olena Mykolaivna,
Doctor of Philosophy,
Professor at the Department of Philosophy
Yaroslav Mudryi National Law University
77, Pushkinska Str., Kharkiv, 61024, Ukraine

Pavlenko Zhanna Oleksandrivna,
Candidate of Legal Sciences,
Associate Professor at the Department of Philosophy
Yaroslav Mudryi National Law University
77, Pushkinska Str., Kharkiv, 61024, Ukraine