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ACADEMIC LITERACY AS A COMPONENT OF DOCTOR'S OF PHILOSOPHY PROFESSIONAL COMPETENCY

The article analyzes the research and generalizes the work done by theoretical and practical educators on the academic literacy as a component of professional competency of doctors of philosophy, which is formed during post-graduate studies. It is demonstrated that the research of both domestic and foreign scientists covers various aspects of this issue, in particular, development of academic literacy, formation of academic and communicative competence, inherent characteristics of scientific language and elaboration of the scientific language culture, as well as cultivation of academic writing skills. There are presented the research methods used (analysis, synthesis, generalization, forecasting). The constituents of functional literacy (autonomous literacy, critical literacy, ideological literacy, dysfunctional literacy document literacy, narrative / prose literacy, arithmetic literacy) are identified, and academic literacy is presented as one of the integral parts of professional competency, which develops the post-graduate student's ability to process scientific sources on the research problem, analyze them, interpret and synthesize information to prepare and produce scientific texts as the basis for further scientific studies. The significance of various reading types (scanning, skimming, analytical-critical reading) in the structure of academic literacy on a functional basis is determined. The components of academic literacy are described, covering operational literacy (oral and written language competence), cultural literacy (awareness and knowledge of the discourse specifics / culture of the environment in which communication and cooperation are implemented), critical literacy (understanding of specifics of creating, disseminating, transforming knowledge). Acquisition of academic literacy involves mastering knowledge of scientific style, substyles, and genres (scientific, scientific-informative, scientific-reference, popular science, scientific-educational), skillful use of scientific style while writing scientific or academic texts, characterized by the expressiveness of written speech, its richness, clarity, abstraction and generalization, logic of presentation, coherence of thoughts, and clear compositional plan.

Key words: academic literacy, academic writing, Doctor of Philosophy, scientific style, professional competency.

Problem statement. At the beginning of the XXI century, special attention of theorists and practitioners of higher education is focused on the quality of education. To ensure high quality of training doctors of philosophy, there is used a competency-based approach which determines the content of educational and scientific programs for training doctors of philosophy. Thus the set of competencies that a PhD student must master includes the ability to communicate freely on issues related to scientific and expert knowledge, with colleagues, the general scientific community, society as a whole, as well as to use academic Ukrainian and foreign languages in professional activities and research [5]. So the development of academic literacy, which consists in acquisition of knowledge, formation and development of thinking skills, critical appraisal, generalization, co-relation and comparison, correct formulation and presentation of ideas is necessary for effective learning, personal and professional development.

Analysis of recent research and publications.

Recently the issue of academic literacy has been considered by both domestic and foreign scholars. In particular, development of academic literacy is in focus of attention of B. Green and C. Beavis [12], N. Murray and A. Muller [14], K. Sebolai and D. Dzansi [15], K. van de Poel and T. van Dyk [16]. The formation of academic and communicative competence is dealt with in works of V. Biletska [1] and M. Kozolup [3]. The works of N. Ishchenko [2], O. Semenog [7], L. Shulinova [10], T. Yakhontova [11] are devoted to distinguishing characteristics of scientific language and the culture of its use. The development of skills and abilities of academic writing are considered in works of T. Lutyi [4], S. Revutska [6], O. Semenog and O. Fast [8], T. Kawase [13] and others. However, the development of academic literacy in the context of training doctors of philosophy, in particular, the formation of their professional competency has not yet been the

subject of dedicated scientific studies, which led to the choice of the subject of our research.

The purpose of the article is to present the results of the research and generalize the information presented in the works of theorists and practitioners in the field of education on academic literacy as a component of professional competency of doctors of philosophy, which is formed during their post-graduate studies.

Research methods. To achieve the goal of the research the following theoretical research methods were used: analysis and synthesis of the research outcomes, generalization for formulating the conclusions, forecasting for determining the prospects for further research.

Presentation of the main material. For many years, scientists have been discussing literacy and its importance for various areas of human life. This led to the emergence of such a concept as functional literacy, which is understood as "the ability to create and use printed and written materials related to different contexts, which is mastered by individuals in their lifelong learning to achieve goals and realize their potential as personalities, professionals in a certain field of economy or social sphere and rationally use the formed skills in the process of life in the modern society of knowledge" [9, p. 52].

O. Fuchyla identifies the following constituents of the functional literacy: autonomous literacy (a set of basic skills of writing, reading and arithmetic, separated from the social, cultural and historical context); critical literacy (skills of critical attitude to the text and analysis of its implications); ideological literacy (skills that contribute to the development of individuals in the social context and their full and conscious participation in the social life); dysfunctional literacy (an individual's negative perception of social and political conditions, which leads to disbelief in their own abilities, refusal to participate in the country's life and, subsequently, to their marginalization); document literacy (skills that enable a person to find and transmit information contained in forms, tables, graphs, schedules etc.); narrative / prose literacy (skills that enable receiving information from fiction, periodicals, advertising and information leaflets, instructions etc. and apply it in everyday life); arithmetic literacy (skills that allow an individual to perform arithmetic operations required in everyday life – to dose the medication, to calculate percentage and area etc.). Integrated literacy (skills of autonomous literacy (reading, writing, arithmetic), social skills and knowledge of modern technologies, that allows to function fully in the modern knowledge society, is synonymous with the concept of "functional literacy" [9, p. 54].

Researchers B. Green and C. Beavis identify academic literacy, which includes operational literacy (oral and written language competence), cultural

literacy (awareness and knowledge of the specific features of the discourse / culture of the environment in which communication and cooperation occur) and critical literacy (understanding the specific nature of creation, dissemination and transformation of knowledge) [12]. According to T. Lutyi, the basis of academic literacy is knowledge, skills and abilities to analyze and critically comprehend the information presented in the text, and the use of language tools "at the perceptual (ability to read and listen) and productive (ability to write and speak) levels" [4, p. 95]. Thus, we are talking about the multidimensional nature of the text and the complex nature of the process of its creation.

B. Green and C. Beavis propose a model that spans several dimensions. Operational dimension is the language and organization of the text, its physical appearance (the structure of the text, paragraph and sentence, the use of certain language tools that form the individual style of the author, the language she uses, as well as the technology used to create the text). According to the cultural dimension, there is taken into account the author's knowledge of the subject of study, based on the results of new and classical research into a particular field of scientific knowledge, understanding of the essence of the discussion and the context, the choice of style and language with the account of the audience and the purpose of the text as well as the field of knowledge and hence the choice of the appropriate genre. In other words, it means the author's awareness of the subject of writing, future readers, and the rules of communication appropriate to the context. The critical dimension covers the provisions, narratives, and ideas that the author presents, generates, substantiates and proves with the help of the created text (here the algorithm of construction and presentation of proofs is important: from the key message to the coherent holistic text. Thus this is the idea of the author, which is presented in the text and encourages other experts, scientists to consider and discuss it it is the author's idea presented in the text that encourages other experts and scientists to consider and discuss it). [12].

The greater awareness of the subject the author showed, the more extensive review of the sources he conducted, the farther he moved along the line of cultural dimension. The more clearly, consistently and competently the author managed to present the comprehended material, the higher is the rate of operational measurement. The author is usually not expected to express his own ideas that require proof in such a text.

Quite often, texts prepared by the humanities scholars are overloaded with linguistic "embellishments" that interfere with the perception and understanding of the essence of the text. At the same time, "physicists-mathematicians who use

language clichés and understand each other well, present their materials in the form that is often not suitable for perception by scientists of other related fields" [6, p. 9].

Academic writing is a form of academic literacy. However, the culture of reading a scientific text is no less important. "This is one of the functions of human cognitive activity, aimed at extracting scientific information from printed or electronic sources. When forming a program for reading a scientific text, you should ask yourself the following questions: What do I expect from this text? What information do I want to get and for what purpose? The type of reading should be chosen depending on the answers to these questions" [6, p. 10].

There are different types of reading depending on its function. Thus scanning reading supposes a preliminary acquaintance with the text, picking up key words from the abstract, table of contents, preface, introduction, separate parts etc. Skimming reading is aimed at general acquaintance with the content of the text and identification of its main idea. Analytical-critical reading involves critical analysis of the text, asking questions to the text, processing scientific material according to the chosen approach, commenting on certain parts of the text, preparing text review [6].

Today the exchange of scientific information, ideas and knowledge produced by scientists, researchers, and developers in various fields is important for the development of society. "Scientific communication in the field of modern science is a multifaceted phenomenon aimed at performing heuristic-informational, social-constructive, social-organizational, informational and popularizing functions" [11, p. 12].

Functional styles characterized by their specific features are determined depending on the purpose and the target audience. Scientific style is used to provide explanation, consolidate the process of cognition, store and disseminate knowledge, and develop new knowledge. The scientific style performs the following functions: cognitive (proving theories and substantiating hypotheses), informative (systematization of knowledge, classification, explanation) and communicative (reporting on research results). "The scientific style is one of the functional varieties of literary language, which serves different branches of science, production, education and is implemented in specialized books of various genres" [8, p. 6]. We agree with the opinion of N. Ishchenko that "the scientific style represents a large information space for functioning of scientific language genres, the appearance of which is ambiguously influenced by various genre-creating features. The author notes that "such features include: the nature of communication (formal / informal), type of communication (personal / public), purpose,

the number of participants, a typical concept of the addressee (peer / subordinate / woman / man), appeal to the addressee (or its absence), activity / passivity of the addressee. The criteria for distinguishing the genre are, first of all: communicative purpose, the model of the work conceived by the author, the concept of addressing, the content of the event, factors of communicative past and future as well as the language used" [2, p. 68]. Investigating the scientific style and its use, O. Semenog and O. Fast emphasize that "the main functions of the scientific style are informative (conveying a message), epistemic (providing scientific explanation of phenomena, clarification, substantiation of hypotheses, classification of concepts, systematization of knowledge), communicative (providing information). Also important for scientific language is the performative function, the essence of which is to establish certain facts or connections with the help of linguistic tools, as well as the function of reasoned proof" [8, p. 6].

Regarding the concept of "genre", we agree with L. Shulinova, who offers the following definition: it is "a dynamic model of the text construction (a typologically presented text), formed by active language practice and enshrined in tradition, determined by the purpose and communicative guidelines that structure and form stylistic specificity, as well as the relationship between language units and means of all levels" [10, p. 83]. O. Semenog offers his own interpretation of the concept of "genre", which he considers to be a form of organization of language material within a certain spoken register, which has historically developed and is characterized by functional and semantic specificity as well as stereotypical compositional structure [7].

Thus there are substrates of scientific style and genres by which they are realized: scientific (containing international symbols and universal general scientific terms): monographs, articles, scientific papers, reports, theses; scientific and informative: surveys, reviews, abstracts, summaries; scientific reference: reference books, dictionaries, catalogs; popular science (containing elements of artistic speech, including epithets, comparisons, metaphors), i.e. presentation of scientific data for non-specialists: books, articles in popular journals; scientific-educational (characterized by simplicity of information presentation, simplified system of proofs, programmatic presentation of material, gradual and consistent introduction of terminological vocabulary): textbooks, talks, lectures; scientific and technical (industrial and professional scope of use) [2, p. 68].

In the context of developing professional competency of doctors of philosophy, whose studies and research are directly related to processing scientific sources, it is necessary to distinguish between primary and secondary scientific texts. The primary texts include monographs, dissertations,

theses, scientific articles, scientific reports, the main task of which is to transmit primary scientific information. These are scientific data obtained by the author in the process of research. Secondary scientific texts include precis, reviews, abstracts, critical reviews, scientific and technical reviews, reports, summaries of various types etc. Their purpose is to describe in brief the content of primary scientific texts.

The academic literacy of future doctors of philosophy involves, above all, the skillful use of scientific style while producing scientific or academic texts. In this context, it should be emphasized that lexical, grammatical, and textual units of scientific style have a common focus on accuracy, logic, generalization, and argumentation of the author's viewpoint, while the language design depends on the genre of scientific text. The expressiveness of the written speech is determined by the vocabulary used, the particular meanings of each word, they being selected according to the context and the prospective readers. The richness of the written speech is determined by the vocabulary and the language tools used, including models of phrases and sentences, connections and relationships in the text. The clarity of written speech is ensured by the sequence of the material presentation, the logic of the author's opinion, the use and repetition of keywords, the division of the scientific text into paragraphs. Such features of the scientific style as abstraction and generalization are formed through the use of "nouns of abstract and generalized meaning, general scientific terms, present tense verbs "without time frames", impersonal verbs, verb-noun combinations, impersonal sentences" [8, p. 11]. The logic of the scientific text is achieved due to the sequence of utterances, provability and argumentation, construction of speech in accordance with the laws of logic, coherence of ideas, and a clear compositional plan.

The logical connections are expressed due to the use of special functional and syntactic means indicating the sequence of thought development (to start with, first of all, then, first, second, hence etc.), concession (however, but, whereas), causal relations (thus, therefore, due to this, accordingly, consequently, in addition, moreover), transition from one thought to another through the system of headings (before moving to ..., let's turn to ..., we will consider, we will dwell on ..., having considered ..., we will pass to ..., it is important to deal with ..., it is expedient to consider ...), result, conclusion (so, this allows us to draw a conclusion, summarizing, we note that ...) [8].

Scientific style is commonly associated with the abundant use of special terms. Specific nature of the scientific text can be explained by many factors such as its genre and the subject matter, the main

factor still being its target reader. The author of the text, driven by the desire not only to communicate scientific information, but also to achieve its clear comprehension, should be clearly aware of the amount of knowledge the readers have about the subject matter, and of the readers expectations. Thus the scientific style is characterized by semantic accuracy and unambiguous statements. To achieve this, the author of the scientific text uses terms and words in their literal sense, provides clarifications as footnotes, references, quotations, names, digital data, which support the scientific position and strengthen the objectivity and accuracy of the statement. An inappropriately used word in a scientific text can lead to a double interpretation of the whole sentence.

In the process of producing a scientific text one should keep in mind the objectivity of the material (presentation of different views, absence of subjectivity, impersonality of the language used, focus on the subject), which is manifested in a balanced assessment of the degree to which the research is done, the ways of the problem solution, the effectiveness of a particular theory, the level of completion of its study, the validity of the results, presentation of the experimental data etc.; The source of information (the author(s) is indicated with inserted words and phrases (according to the data obtained by the authors, the author is convinced that... etc.). The principle of objectivity denies the use of exclamatory words and phrases to denote emotions and feelings as well as emotionally-colored vocabulary, and expressive sentence patterns. Preference is given to a neutral word order, simple and impersonal sentences. A thorough review of literature sources with references, which are presented in scientific texts, is another manifestation of their objectivity. Ignoring this feature can be considered as plagiarism [8].

So features of objectivity in a scientific text are demonstrated both in its content where obligatory components are required and in its form, there being a specific style of presenting the material. Another way to ensure the objectivity of the content is adherence to the scientific tradition: to indicate the object of study, problems, tasks, time frames, achievements of other scientists. References to the scientific tradition in small works are often limited to a list of names of scientists who have dealt with the problem.

The logical sequence of a scientific text "requires the way of presentation in which each subsequent section is coherently linked to the previous one, the presented opinion or thesis is further specified, supplemented, and deepened, which generally significantly improves the vision of the text. So the scientific style is one of the varieties of literary language that serves the sphere of science and technology and is realized in special texts intended for a particular category of readers.

Conclusions and prospects for further research. Having studied scientific and pedagogical publications and taken into account our own experience, we conclude that academic literacy should involve the following: mastery of the academic vocabulary; understanding of metaphoricity; awareness of the main parts of the text and the relations between them; understanding of different types of language and text; understanding of graphic information and the ability to interpret it; ability to distinguish the main idea of the text and its less important details, cause and effect, fact and opinion; ability to perform simple calculations without using technical means; ability to classify and compare issues; ability to draw conclusions based on the obtained information and apply them in similar situations; ability to formulate a problem, present proofs and the factual material to support them; ability to abstract etc.

In the context of training doctors of philosophy, academic literacy should be considered as one of the components of professional competency, which involves the ability of a PhD student to process scientific information sources on the research problem, analyze them, interpret and synthesize the obtained information for preparation and production of scientific texts that will lay the foundation for further scientific studies.

The performed research does not cover all aspects of the research problem. Promising areas of further research include the development of soft skills of doctors of philosophy, which are necessary for building a professional scientific community and establishing constructive communication with both domestic and foreign researchers.

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Муқан Н. В., Кравець С. Ф. Академічна грамотність як компонент професійної компетентності доктора філософії

У статті висвітлено результати аналізу наукових розвідок та узагальнення напрацювань теоретиків і практиків освітньої галузі щодо розгляду академічної грамотності як компоненту професійної компетентності докторів філософії, що формується під час навчання в аспірантурі. Виявлено, що

наукові дослідження вітчизняних і зарубіжних науковців присвячуються висвітленню різних аспектів проблеми дослідження: розвиток академічної грамотності, формування академічної та комунікативної компетентності, специфіка наукової мови та розвитку культури її використання, розвиток умінь і навичок академічного письма тощо. Представлено використані методи дослідження (аналіз, синтез, узагальнення, прогнозування). Виокремлено складові функціональної грамотності (автономна грамотність, критична грамотність, ідеологічна грамотність, дисфункційна грамотність, документна грамотність, наративна / прозова грамотність, арифметична грамотність, інтегральна грамотність), а також представлено академічну грамотність, як один із компонентів професійної компетентності, що передбачає здатність аспіранта опрацьовувати наукові джерела з проблеми дослідження, аналізувати їх, інтерпретувати та синтезувати отриману інформацію з метою підготовки та продукування наукових текстів, що будуть покладені в основу подальшого розвитку наукових студій. Визначено значення різних видів читання (переглядове читання, ознайомлювальне читання, аналітично-критичне читання) у структурі академічної грамотності за функціональною ознакою. Охарактеризовано складові частини академічної грамотності, що охоплює операційну грамотність (усна та письмова мовна компетентність), культурну грамотність (усвідомлення та знання специфіки дискурсу / культури середовища, в якому реалізується комунікація і співпраця), критичну грамотність (розуміння специфіки створення, розповсюдження, трансформації знань). Розвиток академічної грамотності майбутніх докторів філософії передбачає передусім, оволодіння знаннями про науковий стиль, підстили і жанри (науковий, науково-інформативний, науково-довідковий, науково-популярний, науково-навчальний), вміле використання наукового стилю під час продукування наукових чи академічних текстів, що характеризуються виразністю письмового мовлення, його багатством, ясністю, абстрагованістю і узагальненістю, логічністю викладу наукового тексту, зв'язністю думок, зрозумілим композиційний задумом.

Ключові слова: академічна грамотність, академічне письмо, доктор філософії, науковий стиль, професійна компетентність.