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ON PHILOSOPHICAL AND PEDAGOGICAL FACETS OF TEACHING AND LEARNING REGULARITIES

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Effective realization of teaching strategies is affected by various factors of pedagogical science. Theoretical and methodological foundations of pedagogy facilitate understanding of approaches towards organizing effective teaching process. Interdependent occurrence of teaching process together with nature development and social processes in objective reality is subject to corresponding regularities. Objectively, regularities are revealed from accumulated pedagogical experience. Knowledge about teaching and learning regularities is suggested to be one of basic theoretical tools for pedagogical reality cognition. The paper deals with phenomenon of regularity which essentially affects occurrence of teaching and learning. This paper is primarily concerned with establishing the essence of categorial notion of regularity in the context of philosophy and pedagogy and defining specificity of its influence on teaching process. It is pointed to the fact that philosophical and historical prerequisites determine formation of pedagogical regularities. In view of this, some didactic inferences of J. A. Comenius are briefly analyzed and the importance of his philosophical and pedagogical research is substantiated. According to the specificity and logic of manifestation in teaching and learning process, basic criteria of regularities' classifications are identified. Considering regularities as important factors which, to some extent, stipulate outcomes of teaching and learning is accentuated.

Key words: regularity, teaching and learning process, philosophy, pedagogy, pedagogical experience.

Introduction. The present-day understanding of university pedagogical process as complex combination of education and upbringing, teaching and learning, research and development is closely associated with innovative educational approaches and solutions for its successful organization. In narrower sense, coordinated teacher's and students' activity within the scope of a particular academic discipline or a lesson often comes under the notion “teaching and learning process”. Making allowance for the necessity of succeeding modern trends and standards towards optimization and quality of education, a professional pedagogue should realize that teaching/learning process efficiency doesn't only emerge from the adoption of innovative methods of teaching. The effective implementation of teaching/learning process is primarily influenced by a set of consistent and coherent actions aimed at improving quality of learning and ensuring sufficient knowledge of subject in study.

Teaching demands from a university teacher methodically based organization of teaching process due to its theoretical foundations. To achieve both greater efficiency and gains in teaching performance, a teacher should consider and coordinate relevant stages in planning teaching strategies: in particular, educational objectives are to be clearly formulated, actual concepts and forms of a lesson are to be defined, appropriate teaching strategies and methods must be selected.

The rationale of our study lies in the fact that theoretical foundations and regulations undergoing periodic reconsideration by many theorists of pedagogy have remained the backbone factors in determining nature and content of pedagogical process. Based on theoretical and methodological foundations of learning and a clear understanding the essence of components of didactic system (objectives, content, laws, regularities, principles, methods, tools, forms, styles), a thorough lesson planning facilitates consistency and orderliness of lesson procedure, tends to reduce randomness and spontaneity of actions in teaching/learning process.

The process of interaction between a teacher and students is based on balanced unity and interrelation of teaching and learning. In its general meaning the notion “process” is defined as a consistent change of events, states in the development of something; the whole of consistent actions aimed at delivering certain results [2]. Teaching and learning activities (defined as “teaching/learning process” as well) may be characterized as an active process of interdependent actions of its participants – teachers and students. Whatever processes may occur, they conform to certain laws or objective rules – regularities, coordinating process performance and influencing its efficiency. Once interconnected actions of a teacher and a student are stipulated by the strictly determined logic [6, p. 545], regularities may be viewed as one of its significant components. Nevertheless, mostly relying on individual pedagogical experience and intuition, teachers don’t always account for the importance of objective regularities and their effects on occurrence of teaching and learning; though a thorough analysis of ultimate result of teaching/learning process urges to know scientifically based theoretical facets of teaching practice to which regularities are referred as well.

Review of previous research. In order to reveal the essence of regularity as a category of pedagogy determining the occurrence and efficiency of teaching/learning process we have researched the available literature and scientific works on pedagogy and methodology written by Y. K. Babanskyi, A. V. Khutorskoy, V. V. Kraevskyi, R. K. Miniar-Beloruhev, P. I. Pidkasystyi, R. S. Pionova, I. P. Podlasyi, A. A. Rean, V. A. Slastenin. The mentioned scientists converge on the idea of recognizing the crucial role of regularities as important factors of teaching and learning process consistency. As a matter of fact, in pedagogy regularities are defined as those sources of condensed cognition of objective reality which serve for contents of didactic principles rendering general and specific requirements to effective organization of teaching/learning process.

Along with that, a preview of the subject would be incomplete without analysis of philosophical literature. Considering peculiar influence of philosophy on conceptualization of pedagogy we have distinguished some corresponding notions of philosophy related with the notion of regularity through philosophical writings of J. Bogen, A. Chalmers, H. Guradze, A. G. Spirkin.

In historical retrospective the identification of regularities of teaching/learning process as a particular notion of the nomenclature of pedagogical science was predetermined by the outstanding Czech philosopher and pedagogue J. A. Comenius in his masterwork “The Great Didactic”.

The aim of the paper is therefore to highlight the essence of regularity as a category of philosophy and pedagogy, to review historical and pedagogical prerequisites of formation of regularities, to study out the ways of regularities’ manifestation throughout teaching and learning, to identify the approaches to classifications of regularities according to characteristic features of their occurrence in teaching and learning environment.

Philosophical background. In view of generality of its attitudes, rules and regulations, laws and principles philosophical theory serves as a methodology to other sciences; as such, general methodological foundation for pedagogy emerges from philosophy. Accordingly, the specificity of the notion of “regularity” appears in its interpretation as a philosophical and pedagogical category.

From a perspective of philosophy regularities are defined as relatively stable and regular relationships between events and objects of reality in the process of change and development; more succinctly regularities are treated as objectively existing, repetitive, significant relationships of phenomena [4]. The philosophy

regards regularities as being objective in terms of objectivity of nature laws and social development and existence of laws beyond a person's consciousness.

There is no commitment to unambiguous ideas in philosophical literature towards the specificity and ways of occurrence of regularities. In contrast to the attitude that it is impossible to prove regularities' manifestation on the basis of singularities, the idea of significant importance of singularity in formation of regularities is discerned in many philosophical works. In particular, A. G Spirkin states that initially any regularity appears in reality by way of a singular exception from the rule; gradually, singularity increases in number acquiring the force of law; in such a way, certain rules of morality and behavioral norms may emerge [4]. This philosophical insight makes a path to understanding the specificity of emergence of pedagogical regularities, rules, regulations, requirements in teaching and upbringing practice; philosophical aspects of occurrence of regularities outline the concept of formation and establishing regularities within categorical paradigm of pedagogy.

Prerequisites of evolving regularities in pedagogy. The main objective of pedagogy as a science is the accumulation and systematization of knowledge about the education of a person; this knowledge is fixed in notions, regularities and laws. The major source of cognition of teaching and learning regularities is general pedagogical experience accumulated throughout educational practice. Though being valuable from the standpoint of individual teacher's reflections, particular observations, based on one's generalized experience are not considered to be pedagogical regularities. The purposeful activity of those who teach and learn tends to be an objective process in terms of its relatedness to external social environment, collective historical context of pedagogical experience formation, material and technological factors of development; thus, relationships between participants of pedagogical process are determined by objective scientifically stated regularities. The regularities of relevance to science, and which are indicators of law like behavior, are typically the hard-won results of detailed experimentation [8, p. 7]. Therefore, teaching/learning process may not be organized if it doesn't rest on objectively existing or predictable regularities which become apparent due to accumulated teaching experience and rethinking of laws of philosophy, pedagogy and psychology [1].

The historical prerequisites of pedagogical regularities emergence are to be traced within the conception of folk pedagogy, in particular, in the necessity, which has arisen since ancient times, to pass on a developed experience of upbringing from generation to generation by means of rules and edifications; they mainly were morals, rules of behavior and relationships between parents and children because of the importance of upbringing as a social phenomenon [3]. Most of these peculiar pedagogical precepts are extant in the form of sayings, proverbs and aphorisms (they are familiar to us as "You live and learn from those you live with", "Practice is the best master", "Learning is the eye of the mind", "Well begun is half done" etc.)

One of the decisive stages of the scientific and pedagogical knowledge development is shown through formation of pedagogical views and theories within philosophical and pedagogical works [3]. It is worth noticing that it was the great Czech pedagogue and profound thinker John Amos Comenius who attempted to methodize objective regularities of children's education in particular and proposed didactics as a system of philosophical observations, ratiocinations and rules laid down for good behavior and ways of learning in his comprehensive treaty "The Great Didactic" dated the 17th century.

The philosophical concept of J. A. Comenius's pedagogical works lies within the theory of materialistic sensualism, the essential features of which are explained by H. Guradze as follows: everything, including God and the soul, is matter, and only

matter is real; consequently, sensation is the only source of perception [10, p. 367]. According to the theory, man's sensual experience serves as a source of cognition of objective world. J. A. Comenius's search of causal and regular relationships in nature and his appeal to examples from nature were based on considering a person a part of nature; thus, by empirically appealing to the objectivity and accessibility of observation reports [7], the philosopher aimed to relate the development of a person with laws of nature; he stated dogmatically the principle of nature which is to be imitated [11, p. 367].

As it is noted by J. Bogen, reasoning from observations has been important to scientific practice at least since the time of Aristotle who mentions a number of sources of observational evidence; scientists obtain a great deal of the evidence they use by observing natural and experimentally generated objects and effects [7]. The researchers of J. A. Comenius's theory of education say that he applied his observations of nature to the life and education of man and from these observations drew his principles of gradual, easy, pleasant but thorough teaching and learning [9, p. 21].

The incontrovertible methodical value of didactic inferences of J. A. Comenius for pedagogical science is that they have found their expression in actual scientific classifications of pedagogical regularities. By way of example, let us consider the seventeenth chapter of "The Great Didactic" entitled as "The principles of facility in teaching and learning" in which, on the basis of examples from surrounding nature formation and harmonious development of a person were analogized. In this chapter, the sixth principle formulated as "Nature doesn't hurry, but advances slowly" [11, p. 288] through the author's interpretation of examples from nature corresponds with one of his ratiocinations called "rectification": "The ease and the pleasantness of study will therefore be increased...if everything be arranged to suit the capacity of the pupil, which increases naturally with study and age" [11, p. 289]. From a present-day perspective the previous didactic inference has been objectified as one of the basic regularities of teaching and learning: the results of mastering educational material and the efficiency of certain stages of teaching depend on ability of mastering certain knowledge, individual skills and learning time of those who learn. Furthermore, a student's performance is greatly influenced when a teacher holds certain beliefs about the student's ability to perform: when teacher expects students to achieve at higher levels, they typically do [12, p. 66].

From there, it may be proved out that derivation of regularities is ascertained by inductive and analytical logic of teaching process which focuses on observation, contemplation and perception of objective reality and then – on generalization and classification [3, p. 223]. In view of philosophical background of notion of regularity, in actual pedagogy teaching and learning regularities are defined as objective, substantial, stable, continual relationships between components of teaching and learning process which efficiency is influenced by these components, namely goals, tasks, content, methods, tools, forms, technologies (P. I. Pidkasystyi, R. S. Pionova).

On account of objective pattern and consistency of manifestation, teaching and learning regularities tend to be systematized. There exist some characteristic criteria of regularities' classifications within pedagogical theory. Most regularities have been revealed empirically as a result of reflexive analysis of relations between teaching process and social processes; such regularities are thought of as external (or general). The relations rights between the components of teaching and learning process are referred to internal (or particular) regularities [5]. As previously mentioned, accumulated pedagogical experience facilitates revealing regularities. Once human experience is accumulated as knowledge about the world around and means of communication, it turns into society's domain and is regarded as social experience [1]. This attitude underlies external regularities and defines interdependence of

teaching content, forms, methods and social processes and circumstances as well as outcomes of learning and learner's interaction with the outside world. Among internal regularities there may be identified those displaying relationships between teacher's and student's interaction and outcomes of learning; dependence of teaching and learning effectiveness on student's activity [3]. Within particular regularities there may be distinguished didactic, gnoseological, psychological and organizational according to the character of relationships (I. P. Podlasyi). By way of example, consider such a gnoseological regularity as efficiency of knowledge acquisition influenced by the need to learn. Keen understanding regularities of perception and memorizing enables actuation of students' cognitive activity; thus, one of psychological regularities may be exemplified as teaching process performance determined by students' memory development.

It would be fair to say that not all the teachers focus on considering regularities in teaching process that can be explained by certain degree of abstractedness of theoretical knowledge; it is more common to think that theoretical background of teaching process is based rather on particular teaching principles than regularities. Indeed, principles may be viewed as a set of guidance tools specifying practical focus of teaching and learning. Regularities give pedagogues an idea of objective development of teaching and learning process within the framework of the big picture. Nevertheless, it is apparent that this phenomenon should be known and understood by teachers as one of basic theoretical tools in pedagogical reality cognition. Most significantly, teaching and learning process effectiveness naturally depends on social and psychological conditions of its performance, living circumstances, teacher's competency and creativity; consequently, teaching and learning regularities signify substantial and inherent relationships between learning environment and outcomes of teaching and learning.

Conclusions. In this paper a viewpoint on the importance of considering of teaching and learning regularities has been provided. In view of specificity of regularity phenomenon, we have laid emphasis on expounding its essence from a perspective of philosophy. Accordingly, pedagogical notion of regularity has much in common with its philosophical definition: generally, regularities are identified as stable, substantial, continual relationships between events and objects within objective reality.

The material has been developed by a number of contributors for a long time. In particular, J. A. Comenius' philosophical and pedagogical disquisitions to a large extent predetermined teaching and learning regularities formation for purposes of actual pedagogy. The need of classifying regularities has arisen from systematic character of their manifestation within pedagogical environment. As to the specificity of regularities' occurrence, external and internal regularities are identified. This should be taken into consideration while organizing teaching and learning process and analyzing its outcomes.

On the whole, successful implementation of teaching and learning process is affected by complex factors as part of pedagogical science. Attention should be given to the fact that theoretical foundations of pedagogy underlie teacher's practical activity. Teaching and learning regularities as part of theoretical knowledge predetermine peculiarities of pedagogical interaction between a teacher and students and set up stable relationships among components of didactic system to which objectives, content, laws, principles, methods, tools, forms, technologies are referred. By degree of pedagogical validation there are many reasons for devoting attention to regularities as theoretical tools for teaching and learning process organization. First of all, regularities serve as condensed knowledge about interconnection of objects, events and processes in objective reality; this paves the way to understanding teaching and learning as

objective process as well. Secondly, regularities provide a basis for predictability of teaching and learning outcomes. Further, random and inadvertent effects throughout teaching process tend to be reduced due to considering regularities. What is more, particular pedagogical ideas emerge based on specificity of theoretical knowledge about regularities. This carries the implication that disregarding regularities has in some ways an adverse effect on teaching and learning efficiency.

Thus, we have concerned with phenomenon of regularities as part of theoretical pedagogical knowledge in terms of philosophical and pedagogical facets. The outcome of all this is that development of theoretical competence of a university teacher facilitates consistent and reasoned organization of teaching process. Along with that, considering teaching and learning regularities calls for their rethinking and updating in accordance with contemporary concepts of education.

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О. В. Ящук. К философско-педагогическим аспектам закономерностей обучения.

Теоретические и методологические основы педагогики способствуют пониманию подходов к организации эффективного процесса обучения. Взаимообусловленное протекание процесса обучения и процессов развития природы и общества регулируется закономерностями. Закономерности обучения выявляются в результате накопленного педагогического опыта. В статье изучается феномен закономерности, существенно влияющий на протекание учебного процесса. Статья посвящена установлению сущности категориального понятия закономерности в контексте философии и педагогики и определению специфики влияния закономерностей на процесс обучения. Указывается, что философско-исторические предпосылки обуславливают формирование педагогических закономерностей. Ввиду этого коротко проанализированы некоторые дидактические выводы Я. А. Коменского и обоснована важность философско-педагогических исследований ученого. Делается акцент на учете закономерностей как важных факторов, которые в определенной степени предопределяют результаты обучения.

Ключевые слова: закономерность, учебный процесс, философия, педагогика, педагогический опыт.

О. В. Ящук. Щодо філософсько-педагогічних аспектів закономірностей навчання.

Ефективна реалізація стратегій викладання зумовлена сукупністю багатьох факторів, що вивчаються педагогікою. Теоретичні та методологічні основи педагогіки сприяють розумінню підходів до організації ефективного навчального процесу. Взаємообумовлене протікання навчального процесу та процесів розвитку природи і суспільства в об'єктивній дійсності регулюється закономірностями. Закономірності навчання виявляються в результаті накопиченого педагогічного досвіду. Знання про закономірності навчання є одним з основних теоретичних інструментів пізнання педагогічної дійсності. У статті вивчається явище закономірності, що суттєво впливає на перебіг навчального процесу. Стаття передусім присвячена встановленню сутності категоріального поняття закономірності в контексті філософії і педагогіки та визначенню специфіки впливу закономірностей на навчальний процес. Зазначається, що філософсько-історичні передумови визначають формування педагогічних закономірностей. З огляду на це коротко проаналізовано деякі дидактичні висновки Я. А. Коменського й обґрунтовано важливість філософсько-педагогічних досліджень ученого. Розглянуто основні критерії класифікації закономірностей відповідно до специфіки і логіки їх прояву в навчальному процесі. Наголошується на врахуванні закономірностей як важливих чинників, що певною мірою обумовлюють результати навчання. Наведено основні причини врахування закономірностей викладачем під час планування, організації та рефлексивного аналізу навчального процесу. Висловлюється думка про те, що вдосконалення рівня теоретичної підготовки викладача та розуміння особливостей компонентів дидактичної системи сприяє послідовності й продуманості здійснення навчального процесу.

Ключові слова: закономірність, навчальний процес, філософія, педагогіка, педагогічний досвід.