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THE PARADIGM SPACE OF POST-NON-CLASSICAL PEDAGOGICAL RESEARCH: PRIORITY METHODOLOGICAL STRATEGIES AND APPROACHES

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Abstract

The paper unfolds the content of the concepts methodological space of scientific research", "paradigm space of research", "paradigm approach", "conceptual-forming approach"; it presents the hierarchical structure of the paradigm space of post-non-classical pedagogy. On the basis of the content analysis of dissertations in pedagogy and in accordance with the levels of methodological reflection, the paper outlines methodological approaches which are considered to be dominant in post-non-classical pedagogy, i.e. they claim to a paradigm status ("paradigm approaches"). These approaches in the context of pedagogical research perform a conceptual-forming function. The attention of the scientific community is focused on the polyfunctionality of one and the same methodological approach, the multifunctionality of methodological approaches, the need to construct a system of methodological approaches in order to ensure their functional complementarity in the context of a specific pedagogical research which is characterized by the diversity of multilevel scientific and pedagogical tasks. It is claimed that the following approaches should be integrated into the system of methodological maintenance of pedagogical research: approaches which determine the technology of research; conceptual forming approach as the conceptual basis of the authorized pedagogical system; approaches that reflect psychological and pedagogical mechanisms of forming a specific quality in a learner; approaches that specify the technology of projecting authorized pedagogical systems. The author's typology of pedagogical concepts is presented.

Keywords: Methodological space, paradigm, paradigm approaches, paradigm space

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1. Introduction

The concepts of "methodological space", "paradigm space" are not unambiguously defined as well as not logically formalized in the methodology of science. In this regard, it is more correct to speak, for example, about *the concept of "paradigm space"* as a polysemantic formation: in the scientific community, the terms "paradigm context", "paradigm field", "polyparadigm space", "multidisciplinary research fields", "metaparadigm". In particular, Seviaryn (2020) notes that the metaparadigm sets a "paradigm context", a general mental, cultural and conceptual environment in which scientific research unfolds and new scientific knowledge is generated. Scientists focus on the variety of methodological tools, the lack of rigid methodological algorithms and criteria, the variability of research strategies, openness, interdisciplinarity and potential polyparadigmality of the humanities (pedagogical) sciences (Bermus, 2018; Clark et al., 2017; Clarke et al., 2019; Gómez Galán, 2018; Karpov, 2013; Knewstubb & Howard, 2017; Mercieca & Mercieca, 2013; Porus, 2010), on multifunctional paradigms, which are considered both as a normative-epistemological model of education research, and as an ontological model, i.e., a model of educational reality (Kolesnikova, 2019; Verbitsky, 2010).

In our view, in this context it is meaningful to use the term *"methodological space of science" (a specific scientific discipline) to designate the whole spectrum (including also methodological dominants) and functional boundaries of approaches, theories, concepts, methods, criteria that with varied levels of regularity are used in scientific research in this cultural and scientific context*. The methodological space of science is *poly- and interdisciplinary*. In particular, the methodological space of post-non-classical pedagogy is formed not only by pedagogical, but also by philosophical, general scientific, natural science specific, social and humanitarian approaches, theories, concepts, methods, quality criteria, which are used in pedagogical research with varying degrees of frequency. In the methodological space of post-non-classical pedagogical research, there function methodological approaches, principles, methods, quality criteria representing both *classical, non-classical* (pedagogical experiment; principles of validity, evidence, conceptual and terminological uniqueness) and *post-non-classical pedagogy* (polyparadigmality; complementarity of natural science, technological and humanitarian ideals; triangulation of approaches and methods; polyconceptuality; humanitarian examination of innovations, etc.).

Methodological tools integrated into the methodological space have different relevance, degree of influence, methodological functionality, heuristic potential, *methodological status* ("core", "periphery"). It is necessary to determine which approaches, theories, concepts, methods, criteria are priority in post-non-classical pedagogical research and have a "paradigm status". Hypothetically, the "paradigm space", which is formed by methodological dominants, is the actual core, the system-forming component of the methodological space.

2. Problem Statement

In pedagogy, the methodology of pedagogy, the concepts "paradigm", "methodological space", "paradigm space", "paradigm approach", "polyparadigm space" have not been uniquely defined.

The spectrum and hierarchy of "paradigm" approaches that dominate in post-non-classical pedagogical research have not been determined.

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3. Research Questions

3.1. What unites and distinguishes the concepts “methodological space of research” and “paradigm space of research”, “paradigm approach” and “conceptual-forming approach”?

3.2. What methodological approaches dominate in post-non-classical pedagogical research?

3.3. What elements does the system of methodological maintenance of post-non-classical pedagogical research include?

4. Purpose of the Study

Determine the content of the concepts “paradigm space”, “paradigm approach”, “conceptual approach”, the spectrum and hierarchy of “paradigm” approaches that are used in post-non-classical pedagogical research.

5. Research Methods

1.1. Comparative reflection of scientific texts (monographs, scientific articles) in order to determine the essential features of the concept “methodological space”, “paradigm space”, the specifics of the paradigm space of post-non-classical pedagogical research.

1.2. Content analysis and methodological reflection of monographs, scientific articles, doctoral dissertations in pedagogy in order to determine the spectrum of “paradigm approaches” and their hierarchy.

6. Findings

The paradigm space of the research which forms prioritised approaches, theories, conceptions is a component (“core element”, “subsystem”) of methodological space. In particular, philosophers (Starzhinsky, 2018; Zelenko, 2017) highlight that the paradigm space of philosophy is formed by the approaches and concepts that dominate in post-non-classical philosophical research. Accordingly, the paradigm space of post-non-classical pedagogy includes methodological tools that dominate in post-non-classical pedagogical research and claim a paradigm status.

In our view, “paradigm approaches” are methodological approaches that are priority in the paradigm space of a specific scientific discipline in a certain cultural and historical period. “Paradigm status” can have not only be attributed to philosophical and methodological approaches, but also to special scientific theories and concepts that perform a methodological function in the context of the research. It is paradigm approaches, theories, and concepts that form the paradigm space.

Content analysis of doctoral dissertations in pedagogy (over 100) showed the following:

• the axiological field of modern pedagogical research is formed by the following philosophical approaches (concepts): axiological (39%), philosophical and anthropological (27%), phenomenological (16%), hermeneutic (12%), which confirms the tendency towards the humanization of pedagogy;

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• priority general scientific approaches that are used in pedagogical research are: systemic (91%), activity-based (36%), synergistic (31%), interdisciplinary (17%);

• in pedagogical research, conceptual ideas, conceptual apparatus, approaches, methods of natural science and technical disciplines are used: information technology (16%), qualitological (10%), software and design (8%); statistical and mathematical methods are used in 90% of pedagogical studies;

• the dominant social and humanitarian approaches in pedagogical research are: cultural (75%), historical and genetic (12%), subjective (11%), acmeological (10%);

• priority pedagogical approaches are: personal development (56%), competence (40%), humanistic (25%), environmental (13%), humanitarian (10%), subjective (10%).

Methodological approaches perform a number of functions: scientific and ideological, axiological (ideological and methodological attitudes of the researcher), conceptualization function (conceptual vision of the research object), technologization function, and predetermine the logic and technology of research (Serikov, 2017). No methodological approach can be a universal methodological means of solving the entire spectrum of scientific problems, even in the context of a specific research. At the stage of designing a methodological research strategy, the scientist must ensure the functional complementarity of the methodological tools, determine the hierarchical and functional connections between the approaches, a conceptual-forming approach, and dominant research methods. From our point of view, the following approaches should be integrated into the system of methodological support of pedagogical research:

• approaches defining the research technology (logic, methods) – systemic, model, interdisciplinary, scientometric, genetic, etc.;

• a conceptual-forming approach that sets value parameters, target and content priorities, i.e., conceptual foundations, of the author's pedagogical system (either sociocentric, or culture-centric, or anthropocentric; or subjective, or personally developing, etc.);

• approaches reflecting the psychological and pedagogical mechanisms of formation (development) in the target group of a certain quality, property (subject-activity, "task-based", situational-environmental, contextual-competence, cognitive-style, personal development, dialogical, imitation-play, creative-design, research, etc.);

• approaches that concretize the technology of designing educational systems – structural-functional, predictive, program-target, expert-reflexive, ontodidactic, qualitological, qualimetric, cluster, etc.

The "paradigm approach" in the context of a specific research forms the subject of research (perspective of the research object), the initial theoretical (conceptual) position of the education specialist-researcher, sets the conceptual vision of the educational phenomenon. A conceptual-forming approach is an approach (often having a paradigm status) that serves as the methodological basis of a pedagogical concept in a specific study. The results of our research show that cultural (75%), personality development (56%), competence (40%) approaches are most often used as the conceptual-forming approaches in post-non-classical pedagogy.

A number of methodological approaches are integrated frameworks and are essentially meta-approaches. For example, the technological approach is the complementarity of the systemic, informational,

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qualitological, qualimetric, program-targeted, etc. approaches; humanitarian is the meta-approach to axiological, hermeneutic, cultural, subjective, etc. Pedagogical research is characterized by a tendency to integrate methodological approaches, for example, situational-environmental, contextual-competence.

At the same time, one and the same methodological approach can perform several methodological functions in the study. The systems approach can determine the technology of research ("research as a system"), but it can also perform an ontological function ("education as a system").

A modern education specialist-researcher is in a situation of choosing the methodological foundations of his own research due to the variety of methodological means, in a situation of potential polyparadigmality (Stepanov, 2020). Potential polyparadigmality is the potential variability (alternativeness) of methodological foundations, methodological strategies and approaches to solving a specific scientific and pedagogical problem. For the paradigm space of pedagogy, the functioning of alternative (competing) methodological means is natural, polyparadigmality is immanent. Potential polyparadigmality is primarily due to cultural and scientific diversity and subjective and axiological factors. The reflexive independence, subjectivity of the education specialist-researcher is clearly manifested precisely in the situation of potential polyparadigmality, which requires the methodological self-determination of the researcher.

Scientific and methodological diversity, variability of methodological approaches determines the situation of potential polyconceptuality (Seviaryn, 2020; Snopkova, 2020), potential diversity of educational concepts (concepts of heuristic education; concepts of liberal arts education; concepts of inclusive education, etc.). In accordance with the specifics of the scientific and pedagogical tasks, various types of pedagogical concepts are devised: concepts of ontological and axiological types, coupled with philosophical and pedagogical reflection, defining the essence of education in the context of culture, its multicultural foundations, existential meanings and humanitarian goals; concepts of the ontodidactic type that determine the architectonics of the content of education; concepts of a normative-prognostic type, based on interdisciplinary models of the "man of the future", containing potential strategies and projects for the development of education, taking into account cultural trends; concepts of a technological type, focusing on the activity-procedural mechanisms of education, the quality of education (factors, criteria, technologies).

Polyparadigmality, polyconceptuality provide multidimensionality, complementarity, integrity of education cognition.

7. Conclusion

The paradigm space of post-non-classical science is *open, dynamic, heterogeneous, polyparadigm, hierarchically structured*. The paradigm space of post-non-classical pedagogy is constituted by "paradigm approaches"– philosophical, general scientific, natural-scientific, social-humanitarian, pedagogical approaches that dominate in post-non-classical pedagogical research as methodological standards, methodological foundations of pedagogical concepts and technologies and, therefore, have a paradigm status. The core of the paradigm space of post-non-classical pedagogical research is made up of *cultural, personality-developing and competence-based approaches*, which, in the context of post-non-classical pedagogical research, perform a conceptual-forming function.

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