

# ТЕОРІЯ І МЕТОДОЛОГІЯ НЕПЕРЕРВНОЇ ОСВІТИ

## THEORY AND METHODOLOGY OF CONTINUOUS EDUCATION

УДК 37.013(075.8)

**Svitlana Sysoieva**

ORCID iD 0000-0003-2499-732X

EdD, Professor, Full member (Academician)  
of the National Academy of Educational Sciences of Ukraine,  
Academician-Secretary of the Department  
of General Pedagogy and Philosophy of Education,  
National Academy of Educational Sciences of Ukraine,  
52-a Sichovykh Striltsiv Str., 04053 Kyiv, Ukraine  
s.sysoieva@kubg.edu.ua

### INTERDISCIPLINARY STUDIES IN EDUCATION

*The article shows that the widening of the subject field of modern pedagogy requires research that goes beyond the boundaries of discipline and acquires the features of inter- and multidisciplinary; a new qualitative level of research in education can be provided on the principles of educology as a scientific direction of an integrated study of the field of education that focuses on objects and phenomena with a «rigid» and broad type of interdisciplinarity that goes beyond the established subject of pedagogy; the criterion for distinguishing pedagogical researches and studies in the field of educology (education sciences) is defined – «the type of interdisciplinary study».*

**Keywords:** *educology; interdisciplinary research; pedagogical research; type of the research interdisciplinarity.*

**Introduction.** Globalization and integration processes in the world, the formation and development of the information space, and, as a result, total informatization of all spheres of society and the emergence of fundamentally new forms of communication, have greatly influenced the process of formation of new scientific knowledge, technologicalization of scientific research, interaction of various scientific fields. In a globalized world, the necessary condition for overcoming the large-scale and complex problems facing humanity is the integration of efforts of specialists of various sciences in their solution, the expansion of the boundaries of disciplinary research, and the professional training of future specialists – ensuring «a high level of integration of professional knowledge in the background of an increasingly accelerated differentiation of educational disciplines» (Sysoieva S., 2012).

Thus, while conducting research, the importance and relevance of the interaction of representatives of different branches of scientific knowledge increases. «The fragmentation of scientific thought (and, therefore, and scientific institutions) on the subject of research, as required by the canons of non-classical science, have

led to the formation of a system of theories that describe certain slices of realities, but do not form a holistic» theoretical space «that would make decision-making impossible (economic, political or engineering) contrary to the vital interests of mankind» (Zagvoisky L., 2009). It should be emphasized that in the European Union at the interstate level the goals of integration of European science are formulated.

Problems of interdisciplinary research are covered by scholars of various fields of science, in particular V. Kremen (philosophy of education), V. Ognevyuk (education), L. Zagvoyskaya (economics), I. Matiash (archival studies), O. Afanasyeva, E. Vishnyakova (didactics of higher school) and others. This problem is to a large extent related to the humanities, in particular pedagogy, since the division of this branch of scientific knowledge into separate areas, a significant proportion of subjectivity in studies hamper the obtaining of a holistic outcome.

The **purpose of the paper** is to highlight the educational context of interdisciplinary research in the field of pedagogy.

**Presentation of the work.** Pedagogy does not belong to closed, purely branch disciplines, it develops in

all multidimensional relationships with other branches of scientific knowledge. The scope of its operation is practically unlimited, because teaching science affects the efficiency of not only all spheres of society, but also the formation of each individual citizen, level of education, upbringing, values, broadcast social and cultural experience between generations, development of intellectual potential of each country, the quality of its human resources in general.

At the same time, the development of modern pedagogy is increasingly based on research that goes beyond the boundaries of discipline and acquires the features of multidisciplinary, and, sometimes, multidisciplinary studies. Such a situation for the transition to a qualitatively new level of research in the field of education in accordance with the complex, rapidly changing realities of the globalized world is the need or extension of the subject of pedagogy, or the definition of the field of science education.

Policymakers solve the problem of expanding the subject of pedagogy, overcoming the methodological multidimensionality in pedagogical research through the introduction of sub-disciplines of pedagogy, the circle of which is constantly expanding. The pedagogy in the Republic of Poland includes a significant number of subdisciplines, in particular the history of education, the philosophy of pedagogy, pedagogy of religion, pedagogy of culture, social pedagogy, pedagogy of resocialization, pedagogy of guardianship, prenatal pedagogy, pedagogy of the family, pedagogy of creativity, inclusive pedagogy, pedagogy of sport, sociology of education, adult education, fundamentals of educational law, economics of education, gender pedagogy, theory of education, alternative pedagogy, early pedagogy, management pedagogy, comparative pedagogy, media education, special education, health education, education work, pedevtolohiya, school pedagogy, psychology, education, general education, educational research methods. At the same time, such an expansion of the subject field of pedagogical science is not able to stop scientific discussions among Polish scientists regarding the subject and functions of modern general pedagogy.

Now we must take into account that the educational process is transformed in accordance with civilizational transformations. If we take into account that educational institutions and educational institutions operate in a market environment, their competitiveness, management technologies, business processes in education, and the achievement of quality standards of education are becoming increasingly relevant. At the same time, the study of such problems in the disciplinary boundaries of pedagogy faces significant difficulties that can not be overcome, applying exclusively the methodology of pedagogy. The same can be said of the processes taking place in the economy of education, sociology of education, educational policy, etc. Thus, educational phenomena and processes reflecting the integration

of various branches of science in the formation of new knowledge about education, the interaction of the sphere of education with other spheres of society, can be studied solely within the framework of inter- and multidisciplinary approaches, in particular on the principles of education.

In recent years, a new scientific direction of the integrated study of education – educology (Ognevyuk V., Sysoieva S., 2012) has been actively developing in Ukraine. The problems of the development of education, discussed by Ukrainian and Polish scientists at a scientific seminar in Warsaw (2011), were reflected in the collective monograph (Lewowicki T., Ogniewjuk W., Sysoewa S., 2011).

Educology acknowledges a priori that education in recent years has become radically different and qualitatively different from the previous traditional views. Educology examines education widely, namely: the process of external influence on the individual's mastering of generalized social experience and values; result, level of general culture and education of people; value (state, social, personal); a social institution that affects the state of consciousness of society; the socio-cultural phenomenon, the system of various educational institutions and educational institutions (Sysoieva S., 2012).

As you know, the basic approaches to conducting scientific research are classified according to the criterion of «measure of completeness of knowledge of the surrounding world». Among such approaches disciplinary, interdisciplinary, multidisciplinary and transdisciplinary are distinguished.

Research carried out within a disciplinary approach is a study conducted within a single scientific discipline, limited by its subject, subject, and research methodology. The main feature of disciplinary research is that the issues that are selected are explored using the methodology and scientific tools of a particular science. Disciplinary approach is used by specialists of a specific scientific field.

At the same time, the solution of complex problems of society and man requires interaction and convergence between different branches of scientific knowledge, disciplines and sub disciplines, and therefore require the involvement of representatives of different sciences in research to ensure integrity, comprehensiveness and comprehensiveness in solving the problem. This need contributes to the development of multidisciplinary and interdisciplinary research in recent years, and increased attention to interdisciplinary research (Multidisciplinary of scientific research).

Interdisciplinary research is a study that involves the interaction of various branches of scientific knowledge in the study of one and the same object of complex reality. The main features of interdisciplinary research can be attributed to: the combination of different branches of scientific knowledge; Use of methodology and language of more than one discipline

(two); analysis and interpretation of results from the position of «leading» discipline. It should be emphasized that the impetus for the development of interdisciplinary research in the world has been the emergence of disciplines and branches of knowledge, in which the level of interdisciplinarity was much higher than in others. The greatest dynamism and interdisciplinary potential are observed in the social sciences and the humanities, in which developed countries allocate significant amounts of funding, taking into account socio-political and economic reasons, in particular the development of a large-scale market for products and services, recognition of the leading criterion in the system of modern values is the indicator of «quality of life» (Classification of Papers in Multidisciplinary Journals).

Summarizing the work of the scholars, we can distinguish the following types of interdisciplinary: between the scientific branches, between the separate specialties of one and the same branch, between the separate specialties of different branches of science. Such types of interdisciplinarity are consistent with the classifications by J. Klein and R. Kening.

Interdisciplinarity, according to J. Klein, is divided into narrow and broad. About narrow interdisciplinarity is said when in the process of research integration of close to the methodology and paradigms of disciplines (for example, separate specialties of one and the same scientific branch) is carried out. Broad interdisciplinary approach involves the integration of methods, concepts and / or theories of sciences that have little compatibility (for example, different scientific disciplines, individual specialties of different branches of science). The forms of integration determine the search for points of contact between the established branches of scientific knowledge and restructuring - the separation of parts of disciplines for the formation of a new coherent whole (J. Klein).

Regarding the types of interdisciplinarity, for educational research, the most successful, in our opinion, is the distinction between «soft» and «hard» types of interdisciplinarity (R. Kening), since it is the «type of interdisciplinarity» that can be considered as a criterion for the delineation of pedagogical research and Studies on education (education science).

Pedagogical research in its essence always differs by the soft type of interdisciplinary, since the research of purely pedagogical phenomena and processes requires «narrow» interdisciplinarity: in such studies, the integration of close to the methodology and paradigms of scientific disciplines. Studies on education (education studies) can always be attributed to the «rigid» type of interdisciplinarity, since such studies have a «broad» interdisciplinarity: methods, concepts and / or theories of sciences that have little compatibility (philosophy of education, history of education, Cultural education education, education management, educational policy and educational law, economics of education, sociology of education, etc.).

Analysis of fundamental research on actual problems of social sciences and humanities NAPN Ukraine (Main directions of research on pedagogical and psychological sciences in Ukraine, 2013) showed that of the 643 problems identified for the study, 227 (35,3%), are problems with a rigid type of interdisciplinarity. To a large extent, this applies to the following areas of research: the theory and methodology of pedagogy – 43,3%; Philosophy of education – 38,4%; Professional pedagogy – 40,9%; Continuing education – 100%; Adult education – 69,2%; Theoretical and methodological foundations of higher education – 43,7%; Content, forms and technologies of higher education – 42,3%; Pedagogical education – 38,7%; Social pedagogy – 46,6%; Quality of education, management of education development – 44%.

Thus, research into the modern educational field can not be carried out solely on the basis of the methodology of pedagogy. Increasingly, in the study of the functioning of the sphere of education, educational phenomena and processes, there is a need for the involvement of methods and the cognitive field of other branches of science.

In addition to the natural development of science itself US researchers (Report to Congress on Interdisciplinary Research at the National Science Foundation, 2008) include the following factors:

- Targeted research programs, the amount of funding that significantly exceeds the cost of non-specific fundamental and applied work.
- Institutional support: the issue of interdisciplinarity is discussed at the level of academic science, since the academic sector is a leader in interdisciplinary research, the emergence of new areas of knowledge, and so on. According to the assessment of the National Academy of Sciences of the USA, the greatest progress in creating conditions and conducting multidisciplinary research has been achieved in industrial and specialized state (national laboratories, special institutes, etc.) research structures. Unlike the academic sector, the activity of sectoral laboratories is mainly aimed at solving applied scientific tasks that require interdisciplinary approaches. The orientation towards practical results ensures a high level of cooperation and cooperation among specialists of various branches of scientific knowledge.
- The constant growth of the level of contacts between industry and academic science: the creation in the leading countries of the world of university scientists of small and medium-high-tech companies working for industrial corporations, encouraging internships and exchanges between academia and industry, as well as tripartite co-operation between state research structures, academic science and industry.
- Educational policy to promote inter-and multidisciplinary research.
- As far as the European Union is concerned, the main support for interdisciplinary research is provided by large target programs (LipidomicNet: A new EU

project gets underway, 2008) through the creation of specialized centers where personal (and not «virtual») contacts of scientists are realized, which is important for the formation of inter- and multi-disciplinary teams, the exchange of ideas and methods (Leung Y. F., 2003). For example, in solving problems related to the development of clean energy, a promising step in stimulating interdisciplinary research is the formation of «horizontal» interinstitutional relations, including international ones, and the creation of joint research programs and structures by higher education institutions and other research structures (OECD Science, Technology and Industry Outlook, 2014).

**Conclusions.** The development of modern education requires research that goes beyond the boundaries of discipline and acquires the features of inter- and multidisciplinary. A qualitatively new level of such research can be provided on the principles of education, methodologically aimed at the

study of objects and phenomena with a «rigid» type of interdisciplinary, which go beyond the established subject of pedagogy. The criterion for distinguishing pedagogical researches and studies in the field of education (education science) can be considered as the type of interdisciplinary study, respectively, «soft» or «rigid», which defines narrow or broad interdisciplinary.

The stimulation of interdisciplinary research in education should take place through educational programs, the creation of various centers and the establishment of inter-institutional contacts, as well as the development of a financial policy to support such research, the creation of mechanisms for coordinating and supporting interdisciplinary projects in the field of education at the national and supranational levels. The leader in interdisciplinary research, according to most forecasts, will be social and humanitarian sciences as well as life sciences.

### References

- Zahvoiska L. (2009). Mizhdystsyplinarni doslidzhennia v konteksti postneklasichnoi ekonomiky [Interdisciplinary research in the context of post-nonclassical economics]. Vidpovidalna ekonomika: naukovopopuliarnyi almanakh, 1, 48–56 (ukr).
- Matiash I. B. (2011). Mizhdystsyplinarni zviyazky arkhivoznavstva [Interdisciplinary connections of archival studies]. Arkhivy Ukrainy, 1(272), 33–64 (ukr).
- Mul'tidisciplinarnost' nauchnyh issledovaniy [Multidisciplinarity of scientific research]. (n.d.). Available at: <http://protown.ru/information/hide/4457.html> (eng).
- Ohneviuk V., Sysoieva S. (2012). Osvitolohiia – naukovyi napriam intehrovanoho doslidzhennia sfery osvity [Educology – scientific direction of integrated study of the sphere of education]. Ridna shkola, 4–5 (988–989), 44–51 (ukr).
- Osnovni napriamy doslidzhen z pedahohichnykh i psykholohichnykh nauk v Ukraini [Main directions of research on pedagogical and psychological sciences in Ukraine]. Informatsiine vydannia Natsionalnoi akademii pedahohichnykh nauk Ukrainy. Kyiv: VP «Pedahohichna dumka» (ukr).
- Sysoieva S. (2012). Sfera osvity yak ob'iekt doslidzhennia [The field of education as an object of research]. Osvitolohiya, 1, 22–29 (ukr).
- Cheremnyh S. V., Semenov I. O., Ruchkin B. C. (2001). Strukturnyj analiz sistem: IDEF-tehnologii [Structural analysis of systems: IDEF-technology]. Moscow: Finansy i statistika (rus).
- Classification of Papers in Multidisciplinary Journals. ScienceWatch.com. Available at: <http://sciencewatch.com/about/met/classpampmultijour/> (eng).
- Lipidomic Net: A new EU project gets underway. Cordis (2008, August). Available at: [http://cordis.europa.eu/fetch?CALLER=EN\\_NEWS&ACTION=D&DOC=1&CAT=NEWS&QUERY=011c24ac96bc:9fd3:68d75e0d&RCN=29775](http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&DOC=1&CAT=NEWS&QUERY=011c24ac96bc:9fd3:68d75e0d&RCN=29775) (eng).
- OECD Science, Technology and Industry Outlook (2014) (eng).
- Całocioweujęcia edukacji – ku spotkaniu z oświatologią (2011). T. Lewowicki, W. Ogniewjuk, S. Sysoewa (Red.). Warszawa: Wyższa Szkoła Pedagogiczna ZPN (pol).
- Leung Y. F. (2003, January). The Essence of Interdisciplinary Research – Mindset Matters. Science Careers. Available at: [http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2003\\_01\\_31/noDOI.17989095503419373115](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2003_01_31/noDOI.17989095503419373115) (eng).
- Report to Congress on Interdisciplinary Research at the National Science Foundation (2008, August), 1–2 (eng).

### Література

- Загвойська Л. Міждисциплінарні дослідження в контексті постнекласичної економіки / Л. Загвойська // Відповідальна економіка : науково-популярний альманах. – 2009. – Вип. 1. – С. 48–56.
- Матяш І. Б. Міждисциплінарні зв'язки архівознавства / І. Б. Матяш // Архіви України. – 2011. – № 1(272). – С. 33–64.
- Мультидисциплинарность научных исследований [Електронний ресурс]. – Режим доступу: <http://protown.ru/information/hide/4457.html> (дата звернення: 29.08.2017). – Назва з екрана.

4. Огнев'юк В. Освітologia – науковий напрям інтегрованого дослідження сфери освіти / В. Огнев'юк, С. Сисоева // Рідна школа. – 2012. – № 4–5 (988–989). – С. 44–51.
5. Основні напрями досліджень з педагогічних і психологічних наук в Україні / Інформаційне видання Національної академії педагогічних наук України. – Київ : ВП «Педагогічна думка». – 2013. – 47 с.
6. Сисоева С. Сфера освіти як об'єкт дослідження / С. Сисоева // Освітologia. – 2012. – Вип. I. – С. 22–29.
7. Черемных С. В. Структурный анализ систем: IDEF-технологии / С. В. Черемных, И. О. Семенов, В. С. Ручкин. – Москва : Финансы и статистика, 2001. – 208 с.
8. Classification of Papers in Multidisciplinary Journals. ScienceWatch.com [Electronic resource]. – Available at: <http://sciencewatch.com/about/met/classpapmultijour/> (application date: 29.08.2017). – Screen name.
9. Lipidomic Net: A new EU project gets underway [Electronic resource] // Cordis, 2008, August 21. – Available at: [http://cordis.europa.eu/fetch?CALLER=EN\\_NEWS&ACTION=D&DOC=1&CAT=NEWS&QUERY=011c24ac96bc9fd3:68d75e0d&RCN=29775](http://cordis.europa.eu/fetch?CALLER=EN_NEWS&ACTION=D&DOC=1&CAT=NEWS&QUERY=011c24ac96bc9fd3:68d75e0d&RCN=29775) (application date: 29.08.2017). – Screen name.
10. OECD Science, Technology and Industry Outlook. – 2014. – 480 p.
11. Całocioweujęcia edukacji – ku spotkaniu z oświatologią / Red. T. Lewowicki, W. Ogniewjuk, S. Sysoewa. – Warszawa : Wyższa Szkoła Pedagogiczna ZPN, 2011. – 242 s.
12. Leung Y. F. The Essence of Interdisciplinary Research – Mindset Matters [Electronic resource] / Y. F. Leung // Science Careers. – 2003, January 31. – Available at: [http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2003\\_01\\_31/noDOI.17989095503419373115](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2003_01_31/noDOI.17989095503419373115) (application date: 29.08.2017). – Screen name.
13. Report to Congress on Interdisciplinary Research at the National Science Foundation. – 2008, August 13. – P. 1–2.

#### МЕЖДИСЦИПЛИНАРНЫЕ ИССЛЕДОВАНИЯ В ОБРАЗОВАНИИ

Сисоева Светлана, доктор педагогических наук, профессор, действительный член (академик) НАПН Украины, академик-секретарь отделения общей педагогики и философии образования НАПН Украины, ул. Сечевых Стрельцов, 52-а, 04053 г. Киев, Украина, s.sysoieva@kubg.edu.ua

*В статье показано, что расширение предметного поля современной педагогики требует исследований, которые выходят за пределы дисциплинарных и приобретают признаки меж- и мультидисциплинарности; новый качественный уровень исследований в области образования можно обеспечить на основе освитологии как научного направления интегрированного исследования сферы образования, которое сосредоточивает внимание на объектах и явлениях с «жестким» и широким типом междисциплинарности, которые выходят за пределы устоявшегося предмета педагогики; определен критерий разграничения педагогических исследований и исследований в области освитологии (науки об образовании) - «тип междисциплинарности исследования».*

**Ключевые слова:** междисциплинарное исследование; освитология; педагогическое исследование; тип междисциплинарности исследования.

#### МІЖДИСЦИПЛІНАРНІ ДОСЛІДЖЕННЯ В ОСВІТІ

Сисоева Світлана, доктор педагогічних наук, професор, дійсний член (академік) НАПН України, академік-секретар Відділення загальної педагогіки та філософії освіти НАПН України, вул. Січових Стрільців, 52-а, 04053 м. Київ, Україна, s.sysoieva@kubg.edu.ua

*У статті показано, що розширення предметного поля сучасної педагогіки вимагає досліджень, які виходять за межі дисциплінарних і набувають ознак між- та мультидисциплінарності; новий якісний рівень досліджень в галузі освіти можливо забезпечити на засадах освітologii як наукового напрямку інтегрованого дослідження сфери освіти, що зосереджує увагу на об'єктах та явищах з «жорстким» та широким типом міждисциплінарності, які виходять за межі усталеного предмета педагогіки; визначено критерій розмежування педагогічних досліджень й досліджень в галузі освітologii (наук про освіту) – «тип міждисциплінарності дослідження».*

**Ключові слова:** міждисциплінарне дослідження; освітologia; педагогічне дослідження; тип міждисциплінарності дослідження.

Стаття надійшла до редакції 01.09.2017

Прийнято до друку 05.10.2017