THE TRANSVERSAL CHARACTER OF POLYPARADIGMAL EDUCATIONAL SPACE

Purpose. Research on the main transversal characteristics of the polyparadigmal educational space.

Methodology. The scientific discourse of domestic and foreign scientists as for the given problem; historiographic method of continuum of educational space’s scientific concepts; technologies of the reflexive analysis of scientific community’s achievements and our own experience in the field of management of social environment and its structural systems; modeling of the process of transversal connections; methods of mathematical analysis for establishing real patterns of the transversal correlation or concepts conflict of polyparadigmal educational environment.

Findings. It is found that transversal characteristic of the polyparadigmal educational environment is its implicit methodology, which enriches it with new “composite” forms. This creates conditions under which the emergent factors and new phenomena arise in the field of educational paradigms. A scheme of author’s technology of the analysis of emergent zones of transversal interaction of educational paradigms is developed. The internal logics of paradigmality are briefly disclosed in the author’s scheme of transversal interaction of domestic polyparadigmal educational space. Content components of transversal interaction of the educational space’s paradigm are defined. The approximation of results for three years is carried out in the educational process of training of educational managers according to specialty “Management of educational establishment”.

Originality. For the first time, the concept “polyparadigmal educational space” has been proposed and introduced into scientific discourse; factors of dual transversal interaction of the educational paradigm have been defined and the scheme of transversal interaction of educational paradigms has been developed.

Practical value. The use of results raises the scientific discourse on the problem of methodology of polyparadigmality and transversality of the educational space. The developed technological schemes and models can be used in further scientific research and educational process in preparation of educational managers.

Keywords: polyparadigmal educational space, transversal mind, transversal skills, reflexive paradigm, competence paradigm, synergetic paradigm, axiological paradigm, guiding paradigm

Introduction. The author’s reflexion of the educational space of Ukraine made it possible to reveal a rather complex polyparadigmal situation of this social environment. We explain this by palliative nature of high education reform and management of it; adopting the EHEA standards and values; fluctuation influence of internal educational policy and state management; growing scientific and research needs and resources of the highly qualified subjects of the educational space.

The educational spaces (civilizations) are defined by the diversified internal structure which is determined by the needs of the society and dominant educational (pedagogical) ideas, concepts and paradigms.

The second third of the 20th century was marked by intensive introduction of scientific paradigms as for organization of educational environment of Ukraine. There was a dialectical change of such scientific concepts: algorithmization of educational activity, structural and logical preparation of didactic phenomena, activity approach, systematic approach, axiological approach, personality-oriented approach, competence approach, synergetic approach. At the same time none of these paradigms existed by itself because this is connected not only with professional and organizational processes but also with mentality of participants of the educational process and needs of society. Paradigms of the scientific space exist in conditions of constant connections, interconnections and interdependence, that is the subject of transversality. That is why we have the right to speak about the polyparadigmal and transversal nature of the national educational environment.

We have found that the main research on the problem of paradigmality of the educational space has, in general, descriptive character. This approach does not express the polyfunctionality of the phenomenon polyparadigmality by the complex transformation of “traditional” educational effect, the impact; its usage leads researchers to understand the rapid exhaustion of the problem (dead corner situation). To prevent this we turned to the resources of perspective transversal approach in socio-humanitarian sciences. In our opinion, transversality gives opportunity to express the potential and expected result of each of the paradigms which create a conceptual scientific domain of the educational space. Moreover, in our research, we strengthen the role of methodological modeling of multidimensionality of pedagogical, didactic, psychological and mental structures of each paradigm and emergent phenomena (phenomena) in the zones of their cooperation.

Literature review. The researchers of paradigmality (G. Kornetov, S. Ladyzhets, V. Ogneviuk, M. Romanenko, O. Subeto, S. Klepko, V. Kryzhko, O. Matis, O. Prikot, N. Sobol, O. Stankova, O. Starokozhko, V. Shpak and others).

The coexistence of paradigms, especially humanitarian, allows to make a conclusion that struggle and displacement of paradigm is not so widespread as T. Kuhn supposed, since paradigms, in general, have their own cultural and cognitive niches. As a result of the analysis, formulated principle of polyparadigmality in pedagogy is characterized by the following statements:

- admissibility of coexistence of several methodological systems, within which integrated and complete models of the educational process, expressed in the form of pedagogical theories, technologies and educational systems’ models are constructed;
- use of polyparadigmal approaches in the mission of socialization and personality’s creative life — the subject of education;
- introduction of the resources of situational paradigms of the educational space in ideological, methodological and cognitive levels;
- situational choice of scientific paradigms is defined by intellectual, motivational and subject-professional characteristics of a teacher;
transversal combination of different paradigm elements within the framework of certain methodology and technology of education.

The founder of theories of scientific revolutions T. Kuhn predicted the existence of the subject paradigms in the middle of each paradigm, each of which has its own specific set of ideas about purposes, content and processes of education and teaching. Paradigms do not always change one another. Sometimes they successfully co-exist and complement each other (axiological competence) for a certain period of time. The science of pedagogy is at the “preparadigmal stage”, since the presence of many equal paradigms, according to Kuhn, is equivalent to absence of paradigm and is typical for “early stage”.

Unsolved aspects of the problem. We have defined that scientific discourse as for methodology of transversal reflexion of polyparadigmal educational space has not formed yet, so we have determined a number of relevant problems:
- to define and substantiate the concept of polyparadigmality of educational space in the context of the phenomenon of its transversality;
- to outline the social and professional zones of conceptual action of scientific paradigms which are supported by the educational community at present time;
- to develop the author’s technology of modeling emergent formations in the educational polyparadigmal space;
- to develop the elementary technologies of determining the effective transversal synergies of the educational space to the level of management implementation.

Purpose.
1. To activate the scientific discourse on the problem of polyparadigmality of the educational space.
2. To formulate and introduce the author’s definition of the notion “polyparadigmal educational space” into the discourse and scientific use.
3. To identify the content components and emergent zones of scientific paradigms of the domestic educational space.
4. To work out the scheme of transversality of main paradigm components of modern educational space.
5. To establish the transversal character and conditionality of effective correlation or conflict of scientific paradigms and determine the ranks of these processes.

Methods. We have used the resources of scientific discourse of domestic and foreign scientists as for the given problem; historiographic method of the continuum of scientific concepts of the domestic educational space; our research uses technologies of reflexive analysis of the scientific community’s achievements and our own experience in the field of management of social environment and its structural systems; scientific discourse for expressing different approaches and visions of the given problem; isolation of the important fragment and isolation of the subject paradigms in the middle of each paradigm, each of which has its own specific set of ideas about purposes, content and processes of education and teaching.

We used the principle of “superimposition” by F. Guattari and Vienn school of thought as for methodology of transversal reflexion of polyparadigmal educational space which self-correct the purpose of the subject group. Ontologically, transversality appears as an intersection and even overlay of different fields of subjectivity of the educational space. The use of the definition of “imposition” by F. Guattari opens for us the space of the author’s methodological research of paradigmality. Challenges of education of the 21st century are reproduced in Jacques Dolor’s report (1996) and Rome club’s report “Come on!” (2017). The authors talk about the peculiarity of the transversal transition “from consideration of reality as a whole to dividing it into many small fragments”. The relevant is cultivation of the integral thinking but not restrict of the analytical thinking. A. Einstein and L. Infeld wrote that “All existence ideas in science were born in dramatic conflict between reality and our ways of understanding it”.

Goethe J. remarked: “They say that there is truth between two opposite thoughts”. In no case! Between them lies the problem...”.

The domestic researcher of the phenomenon of transversality of the educational space L. Gorbunova emphasizes that art of the innovative thinking is the art of life which provides not only the correct using of logics, rules of deduction and induction, but also the art of argumentation, the ability to conduct open and constructive dialogue in which the new senses and knowledge configuration are born. Our plural reality, as L. Gorbunova emphasizes, requires transitions between different systems of meanings and constellations of rationalities. This can be realized in the complex transversal thinking. It provides what is needed for after-postmodern forms of life: overcoming closed borders, transition from one system to another, simultaneously taking into account multidirectional efforts and skills to look beyond the paradigm partitions [1].

Penetrating in the essence of the problem, reviling the obvious and unknown, transversal thinking goes beyond the discipline, considers the interconnections between different aspects of the problem and takes into account different views and opinions. Recognition of implicit entanglements and explicit transitions helps to avoid despotism and repression in thinking and anarchy because thinking in transversal mood overcomes positions of absolute heterogeneity and incomensurability. The notion of complex thinking and transversal mind has considerably heuristic potential in modern conditions of existing of different positions [1]. M. Kuzmin noted that one of the managerial problems in the society whose mentality is common but heterogeneous can be absence of conceptual continuity of management, its discreteness, which is defined by following factors. First, it is inability to disclose the interconnection and interdependence of the problem of mental heterogeneity. Second, it is reactivity in response to the demands of different subcultural groups. In accordance with the purposes of the research, we propose a scheme of the authors’ technology of the analysis of emergent zones in the transversal interaction of educational paradigms.

We used the principle of “superimposition” by F. Guattari and Vienna rings technology.

- Fig. 1. Graphical model of emergence of zones of transversal interaction of educational paradigms
In the diagram we can visualize the phenomenon of gene-
sis of emergent zones of different level under conditions of
transversal interaction. At the same time we have made sure
that the larger the number of paradigms in the educational
space is and longer the time of their interaction is, the more
expressed and demanded their emergent results become. For
the discourse of transversal character of the polyparadigmati-
ality of the educational space and its management, we have defined
the key concepts of transversality which actually form this
phenomenon and create the landscape of the educational
space. Philosopher Rene Descartes noted: “Define the mean-
ing of words and you will save humanity from half of its mis-
takes”.

According to the character of the research, these concepts are:
“transversal mind”, “lateral thinking”, “transversal reflec-
tion”, “transversal competences”, and “transversals”.

In Welsh’s view, mind, unlike rationality, is not an ability
to provide the first principles of some primary order. He pro-
poses some spheres of consciousness and forms of rationality.
It is not something static and principle-oriented. On the con-
trary, it is dynamic and its activity is revealed in transitions.
In this sense Welsh says about “transversal mind” [1]. The notion
“transversal mind” has not found its hermeneutical solution yet and it is interpreted in many variants. German philosopher
Welsh describes it as a leitmotif of the new thinking, saying
that transversality becomes a “focus of reflexion” in condi-
tions when multiplicity becomes the entity and when it is ne-
cessary to identify not only the plurality but also connections.
According to V. Welsh, transversality is a form of life but not a
form of reflexion. Transversal mind is not a new mind but new
understanding of the mind. Welsh persistently demands from
the transversal mind to reconstruct any relation between diver-
gent paradigms. The use of transversal rationality, in his opin-
on, is caused by the coexistence of different paradigms and conceptions, as different forms of connections which can real-
ize the educational rationality.

“Today, we consider the mind – from the positions of plu-
rality – as the ability to combine forms of rationality and to
enable transitions between them”. The transversal mind is
used, according to Welsh, when the ordinary, subject-oriented
mind is not sufficient to express certain specific issues.
So, we have defined that transversal mind is a mental sub-
stance of paradigm groups of the educational space. The lat-
eral thinking is a tool for realization of this substance in its
multifaceted nature (E. Bono, L. Gorbunova, A. Patrusheva). It is
specific information processing directed to changing of the
existing stereotype model of perception of reality, creating new
alternative approaches to solving the certain problem [2]. Syn-
onymous for this term are effective, productive, non-standard
and non-lenier thinking. The main purpose of lateral thinking,
according to E. Bono, is generating new ideas and moving
away from old fixed stereotypes and ideas, making changes but
not searching the evidence, achieving the heuristic moment
(when unlikely direction of thought leads to a new, more effec-
tive idea). The main tasks of the lateral thinking, in his opin-
on, are follows: to come not so much to the right as to the ef-
fective solution of the problem; to get rid of cliché models, rebuild stereotyped schemes. E. Bono determined the main
principles of lateral thinking: 1) awareness of ideas which pre-
vail and are stereotyped; 2) search of different approaches to
phomena and problems; 3) release from the rigid control of
logical thinking; 4) use of case; 5) understanding that any
point of view on something is just one of many possible points of
view; 6) postponement of evaluation, judgment; 7) genera-
tion of new approaches.

During the study we have identified significant features of the
“affinity” of ideas of lateral and scenario thinking. Transversal management is able to “rise above the ver-
sions” of value hierarchies and historical memory. In this case
it will be not passive tolerance but active use of specific mental
potential of individual sociocultural groups.

We agree with M. Kuzmin’s opinion that transversal man-
agement in mentally heterogeneous society is able to provide
stability in it not only by declaring consent but also by rational
procedures which include in itself taking into consideration
the diversity of interests and mental and cultural potential of
certain groups which are the part of society, anticipation of
consequence of managerial ideas in plural mental environ-
ment, analysis and prevention of possible conflicts. Transver-
sal skills are multipurpose and applied and used in a great number of different roles in the sphere of Na-
tional framework of qualifications and mental requirements of
European civilization. Transversal skills and abilities in terms of
European educational space are understood as correspond-
ing to kinds of activity and professions different from those in
which any person is or has ever been engaged. In a broader
sense, these are those skills and abilities which have been ob-
tained in one context or for solving one task or problem and
can be used in another context [3]. N. Sobol has defined five
main groups of “transversal skills and abilities” (competen-
cies) – technical, analytical, organizational, interpersonal in-
teraction and self-development [4].

In modern sociocultural conditions the necessity is actual-
ized to expand the subject-oriented and special competences of
the teacher and manager of education by means of the sys-
tem of so-called transversal competencies. These competen-
tes are universal or essential; they are based on generalization
of knowledge and skills, abilities and relations. Possession of
transversal competences allows being situationally creative;
transversal educational space the democratic processes and
processes of participation in them of educational subjects,
based on respect of human rights, human dignity, adoption of
divergent vision of problems; being successful in intercultural
dialogue. Formation of these transversal competences of the
teacher and manager will develop educational subjects’ skills
necessary for common life in democratic society.

The development of transversal competences can be pro-
vided, first, through “learning by action”, which allows creat-
ing in the educational process and involving subjects to solving
of problem situations, which model social problems of life in
society. At the same time these competences cannot be formed
with the help of “individual teaching”. In pedagogical educa-
tion and advanced training should be strengthened by so-
called collective strategy of teaching and learning, which in-
cludes teaching in collaboration, methods of work in team,
collective (group) methods. This strategy is more effective for
forming of social, cultural, ethnic, political and other knowl-
dge and skills which are in the basis of transversal competen-
tes [5]. In our research we take the view that transversal
system of education is the system of education with functions of
educational environment and connections, which intersect
and change their configuration, creating not linear chain but
network clusters of different scale developed for professional
improvement [6]. We consider it necessary to outline briefly
the content of paradigms of the domestic educational space.

**Competence paradigm** (the 90s of the 20th century). Based
on definitions of scientists (V. Alitmov, T. Baybar, O. Babenko,
N. Bibik, O. Vashuleko, A. Grabovoy, I. Gudzak, I. Zim-
nyaya, T. Isaeva, N. Koval, O. Lokshina, O. Onoprienko,
O. Ovcharuk, I. Ovchinnikova, K. Ponomareva, O. Prischeva,
O. Pometun and others) we can generalize, agreeing with
G. Selevko’s opinion that competence paradigm in education
means gradual reorientation of dominant educational para-
digm with prevailing knowledge translation, forming skills,
creating conditions of mastering the competences which de-
note potential, ability of graduate to survive and sustainable
life in conditions of modern multi-aspect social and political,
market and economic, informational and communicative sat-
uration of space.

The main conditions for reforming the system of education
on the basis of competence paradigm are optimization of the
content of education, developed on the competence base; in-

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The introduction of personality-oriented approach to organization of educational process, on the basis of which it is possible to take into account professional needs and abilities of subjects, stimulate their desire to mastering the socially and professionally important competences, to seek to realize the individual trajectory of the development (social lift).

**Axiological paradigm** (the 70s of the 20th century – until now). (I. Zyzun, I. Bekh, N. Tkacheva, N. Kravechenko, V. Kryzhko, D. Drvinchuk). Axiological bases have become the property of philosophy of education, eduology, state management and pedagogical management.

We understand the axiological paradigm as a mechanism of constituting a person as the highest value of being; development and introduction of philosophical, social and sectoral moral and legal schemes of guarantees of inevitability of human value under any circumstances.

**Reflexive paradigm** (the 80s of the 20th century – until now). The key ideas of reflexive paradigm are methodology of system, activity, axiological, competence and other approaches. This paradigm is cross-cutting, pervading any conception of the educational space and is present everywhere. The resources of the reflexive paradigm are inexhaustible by their nature. They arise in consciousness, subconscious of the person, participant of the managerial process and they have both rational and irrational as suited the situation. The importance of reflection in the educational process is due to the potential of its influence on the process of self-education and self-development. Being included into the structure of pedagogical interaction, reflection determines the personal orientation of education, promotes its individualization and the fullest disclosure of the personal thinking potential of participants of the educational process.

**Synergetic paradigm** (the 21st century). Scientists B. Belousov, M. Danilov, O. Zhabotinsky, T. Illina, F. Kirilov, N. Kuzmina, Yu. Klimontovich, G. Nikilis and others have made a significant contribution to the scientific realization of the synergetic approach. The founders of synergetics – G. Haken and I. Prigozhin insisted on the legitimacy and necessity of using the new science methodology to the analysis of processes of the development of the most complex class of open, non-linear, dynamic systems – sociocultural, since the very existence is their development. According to S. Vitvitska, the synergetic approach reflects the interdisciplinary analysis of scientific ideas, methods and models of system behavior, revealing their potential in thinking about the world and man. In this context, in the process of studying the higher school pedagogy the problems of interdisciplinary dialogue are considered. Peculiarities of social, cognitive and communicative situations are identified and compared with scientific points of view [7].

We consider synergetic paradigm as “relatively rigid framework of methodological principles”, which is used now in the reforming of educational systems, in particular in Ukraine (Encyclopedia of Education edited by V. Kremen, 2008).

The synergetic paradigm has revealed new dialectic principles of interaction of opposite beginnings such as: ordering and chaos, constancy and variability, predictability and unpredictability of future, good and evil and others. The synergetics has revealed two main forms of the development of complex systems – bifurcation and evolution; in the latter, bifurcation liquidation only certain elements of systems is realized while saving those positive features which will play the progressive role in the future. On the basis of synergetic paradigm, as is noted in the Encyclopedia of Education (2008), it is possible to optimize the solution of the main task of the modern education, forming of personality which could better combine individual interests with all general public interests. However, although synergetic ideas are increasingly spread in the modern and educational space, they have not been adopted by UNESCO yet (it has already been noted that it has recognized the absence of the educational concepts which would be up to date), not by leaders of science and education of any country.

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**The guiding paradigm.** There is a new approach to defining the character of these problems and controversies. They are non-paradigmal. The sources of non-paradigmal problems are: obscurity, ambiguity, lack of knowledge, groundlessness, inconsistency of scientific position, inability to explain the phenomenon, phenomenon of the process. The innovative non-traditional ways of educational reality’s cognition which are not included into conventional conceptual schemes, problem situations and standards of their solving are non-paradigmal. They require new approaches and methods of scientific search. The guidance in education is a creative extraparadigmal activity of the subject (subjects) of the educational system to expand its theoretical and applied field on the basis of unique author’s vision of conscious perspectives which lie beyond the existing normative reality [8].

When selecting components which are included in the “new” paradigm of the educational space we are guided by the following criteria: 1) the selected component must be present in all paradigms; 2) the system connection between components must be traced quite accurately as for educational environment; 3) the component must be representative and reflect the specifics of the axiological paradigm in a necessary manner; 4) some components of the new paradigm can nominally correspond to the parts of disciplinary matrix but they cannot be a direct analogy of the latter; 5) the components must have specific connotations due to the peculiarity of the educational space.

The new paradigm of education should be oriented to the forming of the needs in continuous acquisition and updating of knowledge in all subjects of the educational process, improvement of skills and abilities, their conscious fixing and trans formation in competence – a set of interrelated qualities of personality: knowledge, skills, abilities, value orientation required by an
individual for creative, productive interaction with other people, with specific objects and processes of the surrounding world.

Here is the author’s definition of “polyparadigmal educational space” – a mentally, socially and scientifically defined system of educational ideas, concepts, phenomena, visions, structures and institutions, activity of which is based on the appropriate using of the potential and resources of various paradigmatic visions of the progressive development.

Polyparadigmality provides the existence of various scientific and organizational and structural models of modern education and its management.

During the research we have developed a scheme of transversal interaction of the domestic polyparadigmal educational space (Fig. 2).

Strengthening the social responsibility of the educational space management.

The analysis of this scheme allowed us to define the content components of paradigm and factors of emergency of transversal interparadigm influence of results (Table 1).

The problems of concerted “existence” and conflicts (contradictions) of scientific paradigms in the space of higher education of Ukraine are included in the tasks of our research work. For this purpose, we used the research studies of professional groups of scientists of Berdiansk State Pedagogical University, Melitopol State Pedagogical University named after B. Khmelnytsky, Luhansk State Pedagogical University named after T. Shevchenko, Zaporizhzhia National University and Kirovograd State Pedagogical University named after V. Vynnychenko. The methodological and paradigmatic orientations of their scientific publications were analyzed. We analyzed scientific works by V. Kipenya, O. Savchenko, V. Ogneviuk, T. Desyatova, N. Tkacheva, V. Grineva, N. Gavrish, O. Pla-

| No | Duality of paradigms | Content component of the paradigm                                                                 | Factors of emergency of transversal influence                                                                 |
|----|----------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 1  | Reflexive – Axiological | Target activity and development. Moral purpose of management                                      | The choice of effective management strategy and providing of the humanity of its realization                      |
| 2  | Axiological – Reflexive | Moral purpose of management. Target activity and development                                       | Monitoring of values of educational management with the aim of their stabilization or managed transformation |
| 3  | Reflexive – Guiding   | Target activity and development. Generation and implementation of changes                        | Strategies of educational policy and management as for providing graduality and inevitability of managerial changes of educational paradigm |
| 4  | Guiding – Reflexive   | Generation and implementation of changes. Target activity and development                           | Social and legal motivation of subjects of educational paradigm regarding the choice of new strategies of the development |
| 5  | Reflexive – Synergetic| Target activity and development. Constructiveness of management activity                         | The socially cautionary nature of management’s mission to changes of educational paradigm                        |
| 6  | Synergetic – Reflexive| Constructiveness of management activity. Target activity and development                          | Cooperation of influence of stakeholder groups on management strategy of changes                               |
| 7  | Reflexive – Competency| Target activity and development. Social responsibility of management activity                   | Expert and evaluative monitoring of the management mission of influence on changes of educational paradigm       |
| 8  | Competency – Reflexive| Social responsibility of management activity. Target activity and development                   | Personalization of resources of management strategy of changes of educational paradigm                           |
| 9  | Axiological – Synergetic| Moral purpose of management. Constructiveness of management activity                             | Adaptability of educational paradigm’s values in the period of social and transformer turbulence                |
| 10 | Synergetic – Axiological| Constructiveness of management activity. Moral purpose of management                             | Management mission of generation of humane technologies of “soft power” as for subjects of educational paradigm |
| 11 | Axiological – Competency| Moral purpose of management. Social responsibility of management activity                      | Approval the human-centric strategy of management as for the development of resources of educational paradigm subjects |
| 12 | Competency – Axiological| Social responsibility of management activity. Moral purpose of management                         | The development of professional resources and value orientation of educational paradigm subjects                  |
| 13 | Axiological – Guiding  | Moral purpose of management. Generating and implementation of changes                             | Provision of the priority of mental values and standards in management of the educational paradigm                |
| 14 | Guiding – Axiological | Generating and implementation of changes. Moral purpose of management                             | Managerial motivation of “agents of changes” as for their humanistic mission in the educational paradigm          |
| 15 | Synergetic – Guiding  | Constructiveness of management activity. Generation and implementation of changes               | Provision of continuum succession of ideas of changes of the national system of the educational paradigm        |
| 16 | Guiding – Synergetic  | Generation and implementation of changes. Constructiveness of management activity              | Adoption of non-paradigmatic and irrational ideas of changes in methodologies, technologies of the educational paradigm and its structure |
| 17 | Synergetic – Competency| Constructiveness of management activity. Social responsibility of management activity           | Forming of complex organizational systems of management of the educational paradigm                             |
| 18 | Competency – Synergetic| Social responsibility of management activity. Constructiveness of management activity           | The development of management competences by complex synergetic systems in the educational paradigm               |
| 19 | Competency – Guiding  | Social responsibility of management activity. Generation and implementation of changes          | The effective activity in the development of systems of organizational and managerial engineering                |
| 20 | Guiding – Competency  | Generation and implementation of changes. Social responsibility of management activity          | The implementation of definite levels of the effective guiding activity as for the development of the educational paradigm |

Table 1
Coordinated existence: 1) axiological paradigm — 0.9; 2) reflexive paradigm — 0.7; 3) guiding paradigm — 0.7; 4) competence paradigm — 0.6; 5) synergetic paradigm — 0.5. Accordingly, conflict: 1) synergetic paradigm — 0.5; 2) Competence paradigm — 0.4; 3) reflexive paradigm — 0.3; 4) guiding paradigm — 0.3; 5) axiological paradigm — 0.1.

We have defined the natural process of the constant flow of professional interests of scientific and pedagogical staff from the resources of one paradigm to another. It was recorded that the absolute majority of managers perceive the fact of real co-existing of scientific paradigms defined by us in the space of higher education of Ukraine as a pragmatic reality and they are not oriented towards attempts to replace or to remove them in their own research studies.

We made an attempt of mathematically grounding of coordinated non-conflict correlation of transversal directions of paradigms of the educational space defined by us. 92 heads of educational establishments took part in the experiment (work experience of at least 5 years) and 90 graduate masters in specialty 073 Management (Management of Educational Establishments). The first category of respondents revealed the initial and sufficient level of organization of the scientific work; graduate masters are at initial level of understanding the problem of polyparadigmalism and they are full of romantic ideas at the level “high po”. According to Mana Whitney’s criterion we accept the null hypothesis according to which in the management of polyparadigmal educational space (schools, lyceums, universities) the main expectations of the phenomenon of transversality connected with its humanization and value-semantic adaptation to social fluctuations and turbulence; problems of insufficient social responsibility for results of transversal character of functioning of the polyparadigmal educational space; enhancing the creative potential of education subjects and tolerance in evaluating the positions of other paradigmal groups.

The main indicators for calculating were paradigm content components of Table 1 (Table 2)

The results confirmed our assumption (null hypothesis) with high probability, the difference in levels of defined samples is insignificant and is within the predictability.

Conclusions. We do not absolutize the results of our research. They may change under certain conditions: changes in social order (requirements) to the results of educational management; the authors’ unique or guiding understanding of sources of reverse paradigm by individual manager or institution; correlation influence of scientific and pedagogical and management research studies of the globalized educational space; situational need in the management of education; phenomenal or creative thought activity of subjects of education. It was defined that the idea of transversality in educational management is now at “academic” level and has not become methodological or technological basis for the level of practical management of education yet. The transversal character of the polyparadigmal educational environment is its implicit methodology which not only makes the existence of selected scientific concepts possible but also enriches this environment with new “composite” forms. There occurs a process of partial transformation of each paradigm adapting them to imperative and situational changes of the educational space. This creates conditions under which the emergent factors and new phenomena in the development of the educational paradigm appear.

Introduced by us, the concept “polyparadigmal educational space” will become the object of scientific discourse. The scheme of the authors’ technologies of the analysis of emergent zones in transversal interaction of the educational paradigm is already directed to the technological arsenal of education creative managers. For three years, the successful approbation of our ideas has been carried out in the educational process of training of educational managers according to specialty “Management of Educational Establishment”. The internal logic of paradigmaticity is briefly disclosed in the authors’ scheme of transversal interaction of the domestic polyparadigmal educational space. The determined content components of transversal interaction of educational space paradigms can be recommended for predictive research activity of managers of educational establishments with the aim of defining the real emergent zones and acquiring competencies of “guides of changes”.

We see the prospects of the further work in the development of research technological models of defining dynamic connections of scientific paradigm of the educational space, with possibility of their adaptation to individual characteristics and resources of the educational subjects (managers and guides).

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Трансверсальний характер поліпарадигмального освітнього простору

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Мета. Дослідження основних трансверсальних характеристик поліпарадигмального освітнього простору.

Методика. Науковий дискурс вітчизняних і зарубіжних науковців щодо обраної проблематики; істориографічний метод континуум наукових концептів освітнього простору; технології рефлексивного аналізу здобутків наукової спільноти та власного досвіду в галузі управління соціальним середовищем і його структурними системами; методи математичного аналізу для встановлення реальних закономірностей трансверсальної кореляції чи конфліктності концептів поліпарадигмального освітнього простору.

Результати. Нами встановлено, що трансверсальний характер поліпарадигмального освітнього середовища є його імпліцитною методологією, яка збагачує його новими «композитними» формами. При цьому виникають емерджентні фактори та нові феномени. Встановлено вплив комплексного, глибокого трансверсального взаємодії образованих парадигм на викладачів освіти.

Наукова новизна. Вперше запропоновано та використано для моделювання трансверсальної взаємодії образованих парадигм методологічні конструкції, які не відображають вищевий методологічний контекст. Створено алгоритм використання моделей емерджентних зон трансверсальної взаємодії, який відображає переход від поліпарадигмального дослідження до реалізації емерджентних систем. Впроваджено нову концептуальну модель трансверсального простору, що допомагає відображати трансверсальну взаємодію науковців у різних сферах досліджень та наукових дискусіях.

Ключові слова: поліпарадигмальний освітній простір, трансверсальний простір, трансверсальні навички, рефлексивна парадигма, компетентність, синергетична парадигма, аксіологічна парадигма.