

specific disciplines, stable performance in their work; the formation of an ability and readiness to share professional experience in elaborating modern innovational technologies of teaching specific disciplines (to take an active part in the activity dedicated to increasing qualifications of other teachers); mastering techniques of advising and counseling teachers including those from other educational centers on problems of innovational activity of subject teachers;

3) an advisory support *in the formation of a teacher expert* – providence of subject teachers with advisory and informational services how to master skills of examining innovational activity in teaching specific disciplines; the formation of a system idea of an innovational activity in teaching and its role and place in the work of a school and in the system of secondary education of the Republic of Kazakhstan as a whole.

A subject teacher can discuss questions which arise in the process of innovational activity not only while communicating with a consultant, but during discussions, while participating in online-conferences and methodical seminars and workshops, while studying reviews and advice of colleagues in his/her own blog. In this regard, organizations of professional training and development of subject teachers must hold *training of teaching to take part online-conferences* concerning innovational activity in teaching specific disciplines, informing teachers of rules of participating in online-conferences and norms of network ethics. Besides that subject teachers are supposed to form a skill to hold discussions while participating in methodical seminars and workshops which will increase the level of methodical mastery of school teachers to organize and hold innovational activity in teaching specific disciplines through an exchange of views of colleagues on issues concerning innovational activity in teaching.

A special role in training subject teachers for the innovational activity must be given to the development of skills in creating and managing their own blogs, which serve the professional development of teachers neither through qualification and training courses nor through reading of methodical literature but through keeping a teacher's diary. Under certain conditions, a blog can become a place of the origin of an educational community of subject teachers and subsequently can be used for its informational support.

The assigned structural elements characterize a new system of retraining subject teachers for the innovational activity in the Republic of Kazakhstan.

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#### THE DIFFERENTIATION PHENOMENON STUDY METHODOLOGY IN THE CONTEXT OF THE STUDENTS' ECOLOGICAL – SOCIALLY EDUCATION CHALLENGE

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The students' ecological – socially education, as the pedagogical challenge, is needed the quite different and the various its sides study. The differentiation is acted, as one of them. In this connection, the general and the specific methodological positions establishment necessity is appeared. So, the filiation approach, having developed by us, in the context of the studying youth's and the young students' ecological – socially education challenge, is acted, by the general methodological basis of the study. The philosophy's initial categories, having presented in the filiation approach; the social ecology, the psychology, the pedagogics categories, just from their positions, having revealed the differentiation phenomenon, are acted, as the specific methodological bases.

Further, we shall reveal and expand each from the above – mentioned positions, and, first of all, the filiation approach. So, it should be reminded, that the filiation (e.g. the filiation < filialis – filial) is meant the relationship, the continuity, the development, the dismembering something in the continuity relationship. Hence, the filiation approach essence to some phenomena study, including and the pedagogical ones, is consisted in their consideration necessity just from three main positions: the systemacy, the development, and the independent existence. At the same time, each from all these positions, in its turn, is structured. So, the systemacy, as the system quality, as the basic elements, is included the relationship and the integration; the development – the continuity, and the progress; the independence – the dismembering, the disintegration, and the part (e.g. the structure). So, the study is carried out, in accordance with the filiation approach necessary requirements, exactly, by all these lines.

As far as the differentiation is concerned, it should be assumed to be revealed all its relationships (e.g. the quite possible and the actual ones) with the other approaches, as the general scientific, well as the scientific – specifically ones; with the students' ecological – socially education system; with its separate elements, with the pedagogical practice in *the framework of the first position*. So, it should be emphasized, that the first position's initial categories are acted the following ones: the universal and the general relationship, the interaction, the relation, the system, and the integration. So, it is meant, that the differentiation should be studied, from the point of view of the relationship, «the things' interaction» with the other elements,

depending on one phenomenon from the other one, in some relation (e.g. Spirkin F.G.); the integration, in result of which the activity's separate elements are united into the integration (e.g. Sheptulin A.P.); the integrated relationship, the integrity restoration, e.g. the whole system is formed, in G.A. Bachinsky's opinion [11; 4; 2].

The filiation approach's *second position* just to the studied phenomena is consisted in their consideration, in the context of the continuity, the development, the progress, the basis of which the motion is made up – it is one of the basic general scientific and the methodological categories. So, to the above – mentioned one, it should be added, that the present study, exactly, and is acted, as the one from the presentation development specific examples on the quite different and the various approaches application possibility, in particular, the differentiated one to the students' education realization, in the field of the interaction with the natural environment, the challenge solution at the theoretical level, and under the Institute of higher education, the College, and the University defined and the specified conditions.

The filiation approach's *third position*, which is assumed to be considered just in the differentiation phenomenon study, in the context of the students' ecological – socially education, is revealed in the following notions and the conceptions: the dismembering, the disintegration, the part, and the structure. So, the foregoing one has its principle and the essential significance, as the education ecological – socially phenomenon itself not only has been included into all these differently directed modern and the advanced processes, but and it also has become their result, it is being developed, at the expense of these processes' contradictory interweaving and the intertwining inside themselves. In connection with that, the students' ecological – socially education is presented itself, sufficiently, the Higher Education system's independent element, having united and integrated with it by the general target and the common goal – that is the professional and the expert – specialist, the citizen and the Russian patriot formation, who is quite able to be established the harmonious relationships with the natural environment. So, at the present day, the integration processes are being left sufficiently, strong in the education system, and the students' ecological – socially education is still only being branched and split off, having had only, in the potency, the wholly integrated and the independent system. Thus, the phenomena study within the framework of the filiation approach's notions and the conceptions *third block* is being provided for their structure, the quite separate parts, and also the disconnecting and the interposition processes study.

So, all the above – stated, in full measure and perfectly, is concerned and to the differentiated approach, which is assumed to be studied, in interconnection with the students' ecological – socially education, to be revealed all its possibilities just

in the students' responsible attitude to the nature, moreover, not only in the framework of the already selected occupation and the vocation, but with due regard for their proper and own interests, the inclinations, the guidelines, and the directives. So, in this connection, the necessity is being arisen in the thorough consideration also other methodological bases, as which the science categories are acted, in particular, the philosophy.

So, the quite different and the various sciences are performed, having revealed their study aspect, are performed by the differentiation category (e.g. from Latin – *differentia* – the division, the dismemberment, the whole exfoliation for the different and the various parts, the forms and the stages). So, the *philosophers* are comprehended the distinguishing moments emphasis on the single principle under the differentiation, having proceeded from the single starting point; this is one from the study principles on the further biological development. It should be mentioned, that the differentiation is connected with the individuation in the philosophy, under which it is meant the universal and the general division into the individuals and the persons, and into the peculiar, the special and the unique one. So, the individuation principle is acted, as the individuals and the persons, and the peculiar, the special and the unique one basis. The individuation notion is usually connected with both challenges by the philosophers: why this process is taken its place; why the unity is not the valid one remains undivided; what are the main reasons for its occurrence [6].

Besides, the differentiation is identified with the further deployment in the philosophical science. So, it is assumed the disclosure, the givenness and the presentation parts display, which in the result of this process are given the quite known independence, and they are able to be better distinguished from each other. The «deployment» term is quite often used, as the «development» term synonym in the modern philosophy, but only in those cases, when the process is being studied, in which the goal is absolutely absent, to which some sense or the meaning is not attributed, for example, the inclinations' deployment and etc. [9]. For all this, and such terms, as the «disintegration» one and the «dedifferentiation» one are used. So, the disintegration is always counteracted to the integration. On the whole, having summarized all his carried out studies, Paveltzig G., for example, reasonably emphasizes, that the objective differentiation dialectics is existed, which, in its turn, is connected with the integration and the disintegration dialectics. For all this, each relationship has its double nature: as in the direction of the assistance, well as in the direction of the opposition. That is why, and all the processes, having proceeded at the quite other levels, will have to be considered and to be taken into consideration [5].

So, it should to be noted, that, by the justly and the reasonable remark after Spirkin A.G., the dif-

ferentiation, side by side with the integration and the further improvement and the perfection, is the general and the common criterion of the progress. Moreover, the nature progress, as the paper's author writes, it is quite impossible to be presented, in the straight line form. In its further development, the nature «is not gone by the right march forward» (e.g. after A.I. Gertzen), that and it is being conditioned by the endless variety and the eternal diversity forms of the material bodies and the phenomena existence. Thus, the further development – this is not the straight line, and not the motion by the exclusive circle, but this is the spiral with the turns' endless series, the fanciful and the intricate combination of the forward motion with the movement in a circle. As the matter further development is being unfolded, and more and more the highly organized systems formation, the variety and the diversity objects quality is consistently being increased. Thus, the progress criteria is consisted in the further development possibilities expanding [11; 9].

The other sciences, having proceeded from the philosophical presentation on the differentiation and having operated with this concept, are concretized it, in accordance with its study's object. For example, *the sociologists* single out the social differentiation, under which they comprehend the emergence process in the activity quite new types society. So, this process is connected with the productive forces, the public distribution, and the labor division further development, in result of which the following changes are appeared in the social position of the social groups' series. At present, the differentiation is connected with the society's informatization, the new technologies, having raised the production efficiency [7; 13].

Now, the differentiation category is being developed not only by the humanities sciences. It, moreover, is operated and by the natural scientific field of knowledge. So, the *geographers – scientists and the scholars* consider the differentiation, as the process, at which the territorial structure complexity of some geographical formation is being increased, its differentiation is being raised and widened; the tangible compartmentalization is in the territorial aspect. In conjugation with the differentiation category, the *geographers* are used the «mosaic structure» terms, in relation to the landscape, the reverse process – «the leveling» [1]. So, the modern geographical science is exactly the influence result upon it by the both opposite processes – e.g. as the integration, well as the differentiation (e.g. Maksakovsky V.P.) [8].

*The biological science* is based upon the differentiation general scientific definition, and it is revealed it, as the system dismemberment, originally integrated or having been from the identical and the same elements, into more or less isolated differently qualitative parts. So, the differentiation is connected with the given system functions widening and the intensification, the division them among its parts.

This is made the system's work more efficient, on the whole, under condition of the integration corresponding mechanisms further development. Thus, the biologists single out the phylogenetic and the morphological differentiation. In addition, they operate on and the «differentiation» notion, having assumed the differences emergence between the homogeneous cells and the tissues, their changing during the individual further development, having resulted in the specialized cells, the organs, and the tissues [3].

Thus, in our study, the defined and the specified interest is presented the differentiation consideration *in the ecological sciences*. So, in their time, Marx K., and Engels F., having revealed the society interaction peculiarities with the nature, have not limited themselves to the consideration only the interaction processes. The last one, in their opinion, is inseparably connected with the disintegration. The scientists and the scholars have noted, that in the material production, in the human labor, it is carried out, as the unity, well as the human struggle with the nature, it is realized, as the integration, well as the disintegration processes, in which, in the end, the forms variety and the diversity reasons, the integration and the disintegration types, the differentiation and the dedifferentiation kinds inside the society have been concluded [9; 5]. Eventually, the differentiation processes have already covered and the modern ecology, for that Reimers N.F. rightly indicates. So, it has been presented in the following way: today, the most common and the general ecological challenges are included into the general ecology, but their part – into the mathematical, or the theoretical ecology. So, the ecology branches have been emerged and have been formed with quite varying and the unequal completeness, and they are distinguished and are quite differed by their volumes. All the new ones and their branches are emerged, and they are formed [10].

Having kept with the above – stated, N.M. Mamedov's ideas and his concepts, having singled out the differentiation principle, as one from the formation main principles of the ecological education system. So, it is permitted to be delimited and to be studies the quite different and the various processes in the ecological education, to be distinguished it from the educational system ecologization process. At the same time, N.M. Mamedov notes also the organic relation and the symbiotic relationship necessity of this principle with the other one, not less the significant one – the integration principle. So, their both application in the optimal combination between each other and also with the other principles will be permitted to be raised some challenge study results reliability, in particular, in the ecological and the ecological – socially education system [12].

Thus, the modern period of the scientific knowledge further development is characterized by the main interconnected and the interrelated tenden-

cies presence: as the integration and the disintegration, well as the differentiation and the dedifferentiation. All these tendencies practically are covered not only the science, but and the quite other activity's spheres, in particular, the educational sphere. In accordance with the present study's goals and the tasks, the necessity is emerged and is formed, in the differentiation processes thorough consideration in the ecological – social education system, at the quite different and the various its stages.

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