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Interdisciplinary Competences and Their Status Role in the System of Higher Professional Education

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Abstract

The authors examine the role of interdisciplinary competences in the development of higher education on the basis of the analysis of their integrative nature, nature and characteristics. The role of monitoring and indicators in the assessment of students' knowledge obtained through the use of interdisciplinary competences is revealed. The importance of interdisciplinary models by identifying the stages of implementation of practice-oriented communicative approach in teaching is exposed. The problems of interdisciplinary competences are discussed in the context of forming tolerance and minimizing risk-taking in society. Against the backdrop of youth's problems the issue of educational reform is put forward and solved from the perspective of interdisciplinary, systematic, integrity. In the authors' opinion, the formation of multi-disciplinary competencies, which would have formed the basis of social tolerance, is relevant to present day.

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1. Introduction

The problem of formation of tolerant attitudes in society is one of the contemporary major ones and is directly related to the solution of the interdisciplinarity problem. Particularly important is the question of prevention of

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various kinds of extreme manifestations in stressful situations and social risks. The very social existence of large number of human communities at the present stage of historical development is characterized as the existence in the conditions of uncertainty or risk.

The process of linkage destruction between traditions and innovations, that defines the basis of public consent by legitimization of the "new" from the side of the "old" has been launched – we witness the deformation of mechanisms of conveyance of culture, and conveyance of education respectively. It would be wrong to think that risk-takingness is only characteristic for modern Western culture and society – on the contrary, this feature takes over the being of the whole modern world community to the same extent, as countries and cultures exciting become subject to the processes of globalization. The problem of interdisciplinary competences and their status role in education acutely and indispensably occurs in the period of higher education shift from regular to competency education. The thing is that multidisciplinary competences characterize the ability and willingness of students to apply their knowledge in their professional activities.

The ability and willingness to complexly apply the knowledge of several disciplines according to the requirement of professional activities defines the interdisciplinary competence. In addition to knowledge, competence should comprise the understanding of the communication between the different disciplines and the psychological readiness to apply the knowledge of the relevant related disciplines, the experience of application of discipline knowledge in the study of other disciplines, the use of knowledge of different disciplines in professional activities, the experience of integrative application of knowledge from various disciplines in professional activities, the credibility of the student in solving the problems of professional activity, the willingness and readiness to learn the discipline in order to obtain new knowledge in the process of studying other disciplines.

2. Research

The acquired experience of task solving provides a new quality – the ability to eliminate certain professional problems; if additional knowledge enhances our knowledge in the professional activity. In our view, interdisciplinary competences significantly enhance students' readiness for future work, and interdisciplinary communication in combination with the professional activity becomes the condition of education (Kvesko, et al., 2015).

For an objective assessment of the student's interdisciplinary competence one needs the monitoring and indicators that allow to evaluate his (the student's) ability to apply knowledge of other disciplines, if they are needed in professional activities. Tests can be the examples of the proposed tasks in the solution of which it is necessary to use the knowledge of several other disciplines, as well as tasks with elements of professional activity.

Students apply knowledge in other disciplines in solving the problem within a given discipline. Our study shows that this is a rather difficult process which takes place in several stages. At the first stage, the student connects the tasks with the discipline in the communicative practice. At the second one, s/he forms a multidisciplinary model of a descriptive nature with the help of the knowledge of the given discipline and other disciplines. Then, a study of this model takes place, through this we get new knowledge. At the fourth stage, we obtain the required complex knowledge. Finally, at the fifth stage there is a shift from knowledge to substantive work.

Interdisciplinary models are universal and are formed in the process of education in each discipline always using the knowledge from the border disciplines. If the knowledge of several disciplines relevant to interdisciplinary model are fully utilized, the university students at the beginning create a model as a supplement to the course of a particular discipline, then it is explored, the results are interpreted (Kvesko, et al., 2014). Next, other models of interdisciplinary character are formed and studied. Due to the integrative application of knowledge the study of this particular discipline occurs. During the creation of models the student develops interdisciplinary communication. Overall test task performance must be evaluated: to create an interdisciplinary model necessary discipline should be identified.

Competence of formation of such models; research requires the experience of application of knowledge by this survey, indicators are the evaluations of the acquired results. To perform the task one must first set the level of students' knowledge of disciplines, then knowledge of the problem and ways of assessing the competence of forming of interdisciplinary models, intelligent tools for acquiring the results of knowledge application.

Finally, the task to monitor the student's abilities should be sequentially pass through all these stages. Evaluating the fecundity of the task fulfilment on the selected scale will be an objective assessment of both knowledge and interdisciplinary competence of the student.

The authors try to build all the elements of the educational process through the creation of an educational program based on the competence approach to teaching (Deshpande, 2010). Education, whose basis is competences, corresponds to paradigmatic learning. In the history of psychology such a method of teaching, teaching technology, as well as more particular one, directly close to the educational process, program the algorithm for problem solving, challenges, situations, technologically and personally oriented and professionally active.

Through the prism of the main categories and methods of teaching we believe that the purpose, content, forms, methods, training courses should be considered possible if this integration takes place under the conditions of relatively separated categories. So, towards the concept of "purpose" and the corresponding result of the application of this concept we utilize the knowledge of cultural nature, as well as cognitive, based on the integration of competence (Nelsen, 2005).

Relating to the "contents" of the education system, based on competence of integration, one can figure out, in relation to the organization of educational process, the situation, the problem, the technology, the algorithm, the personal orientation and activity; to the "means" – the system, the structure.

For the study based on the competence approach the methodological analysis of such difficult phenomenon as the organization of education is important.

In pedagogical science and practice the significance of axiological and semantic in the personality-oriented process of education, based on the competence of integration of disciplines, enhances practice orientation of training, significantly strengthening its content (Sleuwaegena & Boiardia, 2014). But only from the perspective of multiparadigmality one can cover the prerequisites and incentives of the process that corresponds to the actual phase of modern development of higher education.

Forming tolerant attitudes as such, and especially the formation and maintenance of them in risk-taking situations is an important social task. We define, first of all, the concept of "tolerant attitudes." We understand them as interpersonal and social relationships of tolerance to legitimized forms of aggression – that is, to those social manifestation of personality or some groups that lie on the border between the expected and totally unacceptable social behaviour.

Tolerance can be interpreted not only and not so much as a social (and hence external) norm, but above all – as the norm of morality, based on self-control as reflexive correlation of the action performed to the existing value system in society. Solution of the problem of tolerant attitudes formation is possible if the consistent implementation of a number of methodological principles is provided. To these principles, we refer interdisciplinary, systematic, integrity, and historicism.

Principles of interdisciplinary and systemic character as a base for the systemic and later – the synergistic approaches, emerged in the mid-twentieth century, enables to effectively study the behaviour of complex natural and social systems, considering the processes of their genesis, development and transformation. Application of these principles in the social and humanitarian studies is due to the complexity of the structure of modern society and the character of the interactions within it, and thus the complexity of the problems posed in the course of social development.

So, the problem we are considering actualizes such issues studied by social science as the social structure of society, social interaction in his individual and group aspect, the nature of social relations and ways of their regulation, the role of civil society institutions in the processes of self-organization of social systems and many others.

3. Discussion

The principle of consistency is substantively close to the principle of integrity, which requires taking the factors determining its genesis and development into the fullest possible account while considering any phenomenon. In accordance with the principle of historicism the consideration of social behaviour and social processes should be performed taking into account the historical orientation of socio-cultural dynamics: the attitude to the traditions, the

nature of innovations and their perception in the public opinion, changing of socio-economic and socio-political situation, historical dynamics and trends in the development of public institutions and certain social groups based on it. The aim of the study is to identify the social and anthropological factors of risk-taking as the reasons for intolerance in the society, the determination of the basic directions of tolerant attitudes' formation in a risk-taking situation, as well as means of implementation of these directions, covering the scope of both institutional and extra-institutional regulation of public relations.

In addition, in the societies that have taken the path of modernization, the risk is not only a consequence of this process, but acquires the attribute of self-reproduction, serving as an unavoidable characteristic of human activity in conditions of uncertainty. This common feature of all modernizing societies is complemented by specific features, determined by social and cultural differences.

It is obvious that when it comes to the social risk-taking situation, society could be hypothetically considered as the actor on the whole. But within any society there are many different social groups that have their own special interests, as well as specific ways of social behaviour representing these interests. The behaviour of certain groups may be significantly different from the behaviour of others. In view of this, it would be appropriate to consider some groups in society as social subjects and reveal the specifics of their behaviour in the conditions of risk. Distinguishing of groups in society can be done by various grounds: social status, professional qualification and educational levels, attitude to religion and religious affiliation, residence in a particular area, etc.

The program of tolerant attitudes formation in the field of education, of course, should be comprehensive and interdisciplinary. Youth, with its inherent freshness and sharpness of mind, is most suitable for this innovative function. The twentieth century is a time of loss of absolute values-founded cultural centre.

Inability to fully realize their creative potential because of the above-mentioned reasons leads to the diversion of energy in the marginal field of culture, where, as noted, "the current desacralization of the actual" as negation of socially accepted rules and norms. This desacralization in the context of the youth revolution of the twentieth century, takes a completely new, previously unprecedented form – the form of youth countercultures. With all the differences of youth countercultures, they share a common metaphysical basis – the protest is always directed against the power of the older age groups.

The risk-taking feature of this youth it manifested precisely in the intermediateness of its status and it is reflected in the extreme features of consciousness. We can assume that the risk-taking nature of youth when applied to risk-taking social conditions can give rise to an active self-isolation of young people into groups and movements, opposed to the existing social order, and there is also a danger extremist actions against different groups, marked as "aliens" (or "enemies".)

The result of negative factors is the concentration of a large number of young people in the field of leisure, which to a certain extent eliminates social-status restrictions and serves in fact as the only form of their basic needs' realization – self-determination, self-expression and self-affirmation. The solution of the extremism problem preventing and the formation of tolerant attitudes within the youth seems possible only if the state policy is aimed at the gradual resolving of socio-economic problems of not only young people, but all the groups in Russian society. The latter is a key moment, as young people, because of the transitive, forming character of their subjectivity, can enter a variety of social groups: students, workers, soldiers, members of young families, etc. within quite short periods of time.

Without reformation of the entire education system, especially its methodological bases, it is impossible to solve the major problems of the youth. Strictly speaking, the quality of the solutions to these problems will determine the level of extremality of the youth's consciousness and the degree of the young people's tolerance.

The validity of this approach to the problem is substantiated by the conclusions of sociologists that in the motivational sphere of youth movements' participants ideological motives related to the violation of social justice occupy a significant place.

Ideology, along with the socio-economic component, plays an essential role in the formation of tolerant attitudes. Forming of tolerant attitudes should be part of an integrated system of young people's education and upbringing. Unfortunately, in the post-perestroika period there happened a nearly complete elimination of the upbringing component from the educational process. The task of forming tolerant relations in the ethno-national sphere under the conditions of social uncertainty and risk means cooperation of the society and the state in the following areas:

- formulation of a focused, consistent and systematic policy in the sphere of regulation of inter-ethnic relations, which would integrate the best of Russian culture and modern multiculturalism policy and prevent their inherent errors;
- formation of a truly constitutional state as the basis for the harmonious coexistence of different peoples and cultures;
- consideration of Russia's multiethnicity in the culture and art policy: inclusion of Russian peoples' traditional cultures into TV programs, celebrations, festivals, competitions of various levels;
- public control (public expertise institute) over artistic production in order to prevent trafficking in radical-nationalistic movies, books, etc. that contribute to fuelling national discord;
- consideration of Russia's multiethnicity in educational policy: more complete and representative information about national cultures and their prominent representatives in the school, college and university curricula;
- interdisciplinary approach to curriculum building.

Critical comprehension of the processes taking place around is recognized by the world community as the foundation of tolerance. The basis for the formation of tolerant attitudes among young people should be the social activities promoting the formation of positively directed civil, ethnic and national, religious and other forms of identities of young people.

Consequently, it is the revival and development of national cultures, the peaceful coexistence of different faiths, active movement "from below" in terms of construction of society as based on consent and acceptance of the others co-existence is the main key to the formation of tolerance in young people and society as a whole. Ethno-national communities must be considered as social subjects.

4. Conclusion

The use of the model of education activities in the learning process has significant advantages: before the traditional model of the educational process organization will create the conditions of education through the analytical knowledge, it is necessary to overcome the reefs, which are in its use. The realism of simulated situations and difficulties encountered by the student may confuse his distinct notions of problem solving, and also harm the educational process.

All this imposes new requirements for the implementation of the interdisciplinary competence-based educational process: the teacher must be the leader, at the same time the analyst and the expert who give solution to the problems discussed in the classroom both in a certain situation and analytically.

Another problem of the educational process, which is organized with the elements of the competence-based discipline integration, is in the strengthening of the motivational component of the educational process. Practice shows a higher level of teacher and students' interaction aided by active education technologies, active role playing methods.

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