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DIDACTIC FEATURES OF PEDAGOGICAL INTERACTION AS THE BASIS OF UNIVERSITY EDUCATION

Nina I. Kryukova[1], Anna N. Zakharova[2], Galina S. Dulina[2], Zulfiya F. Yusupova[3], Izabella D. Belonovskaya[4] and Julia N. Bogdanova[5]

The relevance of the study is conditioned by the change of university education's values and sustainable orientation on the development of students' need "to go beyond being studied," and the ability to educate themselves throughout their lives. The purpose of the article is to develop practical recommendations on optimization of pedagogical interaction of teachers and students at the university. The leading approach to the study is the personality-centered approach involving the formation of each student's experience of creativity and capacity for self-organization and self-realization. The study involved 500 teachers and 500 students who learned functions of seminars (explanatory - systematizing, control - evaluative, information - cognitive, educational - developmental, general cultural, practice - oriented) and justified demands for seminars (exchange of information, teacher's focus on enhancing of each student's cognitive activity, cooperation of students with the teacher, the students performance of the roles of discussion's participant, opponent, thinker). The main results of the study are to identify methods (organizational - procedural, productive - practical, verbal - logical) and criteria for co-creation of the teacher and students. The significance of the results obtained is that the seminars' functions found out enable to combine the entities of co-creation on the basis of general cognitive interest (seminars - discussions) and the ability to meet their own learning needs (seminars - research). Demands put forward for seminars enable to develop criteria for evaluating the performance at the seminars, find types and techniques of conducting the training dispute. Methods identified make it possible to create different patterns of interaction of teachers and students both vertically and horizontally; organize the work of the students in small groups, pairs; engage students in the study and production planning, collective - individual thinking activity on lectures and seminars. The identified criteria for co-creation provide for entities' single "target space", functional responsibilities and co-management, the development of communicative and reflexive abilities, needs' updating in creative work.

Keywords: pedagogical interaction, entity-entity relationship, the co-creation of teachers and students

INTRODUCTION

The relevance of the study is conditioned by the change of values of university education and sustainable focus on the development of students' needs "to go

[1] Doctor of Law, Professor, Head of the Department of Criminal Law Disciplines, Plekhanov Russian University of Economics, Moscow, Russia, *E-mail: ninari68@mail.ru.*

[2] PhD, Associate Professor of the Department of Social and Clinical Psychology, Chuvash State University, Cheboksary, Russia.

[3] PhD, Associate Professor of the Institute of Philology and Intercultural Communication, Kazan (Volga region) Federal University, Kazan, Russia.

[4] Doctor of Education, Professor of the Department of General and Professional Education, Orenburg State University, Orenburg, Russia.

[5] PhD, Associate Professor of the Department of Criminal Law Disciplines, Russian Academy of Lawyers and Notaries, Moscow, Russia.

beyond being studied," and the ability to educate themselves throughout their lives (Gabdulchakov, Kusainov & Kalimullin, 2016). This includes the innovative development of pedagogical processes, the set of which includes pedagogical interaction (Yashkova & Kalimullin, 2015; Kamasheva *et al.,* 2016; Shaidullina *et al.,* 2015a; Kalimullin & Dobrotvorskaya, 2016; Kalimullin, Yungblud & Khodyreva, 2016; Vasyagina & Kalimullin, 2015). As a philosophical category, the interaction reflects the entities' impact process on each other, their mutual conditionality (Grigoryan, 1982). Pedagogical interaction - is the activity of teachers and students, aimed at problem solving and providing for the interdependence of the personal qualities' development of interaction's entities (Schetinin, 1986; Dyachenko, 1991; Khairullin & Khuziakhmetov, 2016; Masalimova & Chibakov, 2016; Masalimova & Ivanov, 2016; Shaidullina *et al.,* 2015b; Kalimullin, Khodyreva & Koinova-Zoellner, 2016; Vlasova, Simonova & Soleymani, 2016). The famous Russian scientist wrote about the university education: "We, who are engaged in human education, are obliged to at least do not hurt him. But it is we are doing at times irreparable harm, drowning students' ability by cramming, substituting the wisdom with knowledge and skills with information. Unlike any other educational institution, the University aims to provide the mastery of scientific methods, not only their deep understanding, but ability to use them in practice "(Bim-Bad, 1999). It is found that the pedagogical interaction has several forms - cooperation, confrontation, neutrality. If the pedagogical process's entities contribute to mutual achieving their common goal, we can talk about cooperation (Azarov, 1985). But if one of the entities of the pedagogical process hinders the achievement of goals, then we can talk about the confrontation. In this case, the targets of pedagogical process's entities are diametrically opposed (Bim-Bad, 1996). Neutrality is a form of pedagogical interaction in which a relative balance is established and participants avoid the activity to achieve the goal (Andreev, 1988). The most effective form of pedagogical interaction is cooperation. Pedagogical collaboration involves finding by the teacher of optimal non-standard pedagogical solutions mediated by the features of entity-entity relations. This allows us to consider the pedagogical interaction as the foundation of modern university education (Gromkova, 1993). Pedagogical interaction, in the most productive form - cooperation envisages joint clarification of the goals and objectives of each training course as a whole, each of its component units, each lesson. The purpose of the article is to develop practical recommendations on optimization of pedagogical interaction in the process of university education.

RESEARCH METHODOLOGY

The leading approach to the study is the personality-centered approach to the organization of university education, providing for the formation of each student's experience of creativity and capacity for self-organization and self-realization

(Bondarevskaya, 1995). As a methodological basis for the study the personality-oriented approach allows us to consider a man, his active cognitive position as a value in itself, and pedagogical interaction as the basis of university education (Kossov, 1995; Yakimanskaya, 1995; Petrova *et al.*, 2016; Masalimova & Benin, 2016; Shaidullina *et al.*, 2015b). Personality-centered focus of university education is reflected in the orientation of the teacher on the set of self-processes (self-determination, self-actualization, self-fulfillment, self-estimation, self-education) which are dialectically interrelated with human freedom (Serikov, 1994). In the early 20th century Russian scientist S.I. Hessen (1995) wrote that in the teacher-student relationship should be the leading principle of freedom, which does not reject the notion of any authority, any notion of duty. Discipline is possible through freedom, freedom - through duty law. Human freedom, considers S.I. Hessen, is not only the necessity cognition, but there is even the selection of possibilities. Freedom is the creativity of the new, not existing in the world. Freedom is not an arbitrary choice between several already in finished form, although possible, ways. Freedom is the creation of a new special way, which did not exist previously.

Understanding the creative freedom as applied to pedagogy manifests itself in the fact that the teacher focuses on the method and its independent use. S.I. Hessen (1995) points out that the task of teaching - is to master the method. Every item of knowledge is transferred, not for itself, but for the sake of a deeper start lying behind what is taught. Particular attention S.I. Hessen pays to freedom of teaching and learning at the University, which is its "natural element". "To force a confession of one's scientific views is as impossible as it is using coercion to engage students in the flow of scientific creativity." Ideal University being is characterized by three principles: completeness of scientific knowledge, the freedom of teaching and learning, self-control (Hessen, 1995). During the research the following methods were used: theoretical (analysis, synthesis, generalization and systematization); sociological (observation, interviews, questionnaires, expert estimation).

RESULTS

The main results of the study are 1) methods of development of co-creation of the teacher and students (organizational- procedural, productive - practical, verbal - logical) and 2) the criteria and indicators of co-creation of the teacher and students.

Methods for co-creation development of the teacher and students

Pedagogical collaboration can be classified for various reasons: the number of participants (entities); subject (in the teaching-learning, the process of education, the process of practice, etc.); purpose (co-creation, reproductive activities); time (occasional, intermittent, continuous); organization (systematic, random); degrees of freedom (voluntary and involuntary); features of influence (direct, indirect, intentional, unintentional) (Pugacheva *et al.*, 2016a; Pugacheva *et al.*, 2016b;

Zakirova & Purik, 2016; Kayumova & Zakirova, 2016; Kalimullin, Vlasova & Sakhieva, 2016). The subject of our study is the co-creation of the teacher and students. Co-creation involves various schemes of interaction of entities vertically and horizontally: teacher - student, student - student, student group - student, and student group - the teacher (Merkin & Merkin, 1991; Senko, 1997). Allocation of these schemes is based on a conceptual idea that the entity of interaction - is not only an individual, but a group, a society, i.e., the total entity (Rudenskiy, 1997). Co-creation involves the joint activity of the teacher and students to address the educational problems on the basis of mutual understanding and mutual support (Kulyutkin, 1986). In the structure of pedagogical co-creation several components can be allocated: (a) the occurrence of pedagogical design and formulation by the teacher of teaching and educational tasks; (b) the selection of forms (classroom, extracurricular) and methods of solving them (the dispute, the project activity, and others.); (c) implementation of selected forms and methods; (d) analysis of the results and their critical evaluation.

Methods aimed at the development of co-creation of the teacher and the students can be divided into several groups. First - it is the organizational and procedural methods: the organization of students' work in small groups, pairs; determination by students the strategy of passing the training course enabling to choose their own educational path in subjects' study; organization of activities of the curator of the student group (Bukhvalov, 1993; Yepaneshnikov *et al.*, 2016). For example, the presence of curators allows building mobile and dynamic system of pedagogical co-creation, contributing to the formation and development of corporate culture. The tasks of the curator should include: the study of the individual student in order to create adequate attitudes and their timely correction; psychological and pedagogical counseling of student; help for freshmen to adapt to new social conditions for them and their changed personal status; work on group cohesion. The curator performing its tasks, in fact assumes a liaison function in the system of relations "teacher-student". The curator's impact on the development of pedagogical co-creation is determined by the degree of participation in the solution of educational problems of each student and the group as a whole, as well as the ability to find effective ways to impact on all entities of pedagogical interaction. Image of a curator largely determines the students' tactics in establishing the mutual confidential relations in pedagogical co-creation. The second group of methods - productive - practical: the involvement of students in the study and production planning, collective – individual thinking activity during lectures and seminars (Andreev, 1988; Lunev, Pugacheva & Stukolova, 2014a). Let us consider the latter method. Collectively - individual thinking activity allows functionally combine the entities of pedagogical co-creation on the basis of common cognitive interest and ability to meet their own education needs. The position of the teacher and students at the lecture and seminar is different. At the lectures professor by

developing his or her view, cause the student to criticism. At the seminars the professor acts as a critic of the study conducted by the student. Seminar (Latin seminarium - nursery) as a method of pedagogical interaction is used in universities of the XIX century. Currently, a host of varieties of seminars appear, each of which provides specific conditions for the manifestation of students' activity and development of pedagogical co-creation (Verbitsky, 1991). It is found that in the practice of university education the following types of seminars take place. First, in terms of subject matter, it is possible to allocate research seminars, with the purpose of in-depth study of systematic policy or certain important themes; scientific issues which is not interrelated with themes of lectures; seminars - debates, to discuss the research findings and practical solutions (Zinoviev, 1975). Second, from the point of view of the organization of collective-individual mental activity, frontal seminars can be distinguished, which are supposed to work with all the participants on the topic and issues; seminar with prepared presentations; combined seminar that combines the frontal work and the preparation of reports (Savin, 1987). It is found that the efficiency of seminars increases when provided the development of creative thinking, cognitive motivation and use of knowledge. Other tasks set by the teacher during the seminars - repetition and consolidation of knowledge and control - must be subordinated to this primary objective. It is found that during the seminars it is important to comment by the instructor of students' questions. Students need to be encouraged for intelligent questions. It is useful to discuss and the quality of questions.

The study involved 500 teachers, 500 students of Kazan Federal University. The survey of students shows that most seminars are characterized by "boredom, formalism, lack of discussions, disputes" (37%); 29% of respondents note that seminars "do not require making independent problem solving" and "the material is not beyond the scope of the curriculum" (34%). Students identified a number of problems of seminars: (a) a formed stereotype of conducting seminars - "question-answer"; (b) the inability of the teacher to offer a non-traditional form of organization of the seminar; (c) the students' inability to realize themselves; (d) students' low educational interest and the lack of full readiness of the group for seminars; (e) the student's status is reflected in the traditional role-playing positions of a listener, observer, responding to teacher questions, the reporter, consumer of knowledge. As the main requirements for seminars, students put forward the following: (a) the need to organize information exchange within the seminar, the opportunity to speak to everyone, learn something, remember something, depending on the personal motives of arrival to the seminar (in the figurative expression of one of the students: "I am in comfort"); (b) teacher's focus on the activation and inclusion of all in the activity; (c) co-operation, communication with the teacher; (d) the execution of the participants' roles of the discussion - 17%, the criticism of the opponent - 10%, thinker - 5%.

The survey of teachers and students enabled to find out seminars' functions: 1) explanatory - systematizing (explanation, repetition, consolidation of the lecture material; systematization of knowledge); 2) control - evaluative (test of knowledge, assessment of students' independent work and identification of the level of each student's knowledge); 3) Information - cognitive (expanding horizons; the completion of the missing knowledge, the development of scientific vocabulary, familiarity with the literature); 4) educational - developing (the possibility of self-realization, self-expression, the formation of interest in the subject matter, the development of educational needs); 5) general cultural (development of skills of free communication with the audience, logical presentation of the material, its accessibility and clarity; the development of communication skills, teamwork, cooperation, positioning of themselves as the entities of the educational process); 6) practice-oriented (use of knowledge to solve practical problems; the desire of the students "to express themselves in front of the teacher").

On the basis of the result of the survey of teachers and students the criteria for assessing performance at the seminars are identified: 1) the interest, enthusiasm of the speaker - 42%; 2) richness, specificity, availability - 27%; 3) the cognitive value of the information content - 18%; 4) brevity, accuracy, consistency, ability to keep within the allotted time - 41%; 5) the rate of speech, diction, fluency in the language, retelling, rather than reading - 26%; 6) communicating with the audience, the ability to attract attention - 17%; 7) oratory, speech culture - 15%; 8) the ability beautifully to express the information without including the words-parasites - 8%; 9) artistry, humor, wit - 4%.

The third group of methods - verbal - logical: debates, discussions (Pavlova, 1988; Klarin, 1995; Lunev, Pugacheva & Stukolova, 2014b; Zamaletdinov *et al.*, 2016). The dispute is a contest, participants of which defend only their own opinion. Disputing parties prove to each other the correctness of their knowledge or the right to a certain activity. The debate ends when one of the parties has proved the truth, the appropriateness of their knowledge about the subject matter of the dispute and the other side agreed with it. On the one hand, the argument of pedagogical interaction's entities is a finding understanding of knowledge, source of expansion and deepening of information. The argument develops the idea, awakens man's creative approach to reality, and makes us doubt, often in that what is firmly anchored in the system of knowledge. But, on the other hand, the dispute may be the source of the spread of negative information, the beginning of the conflict, if the student's role is infringed. Of course, the debate as a kind of pedagogical interaction is not intended to impose a view to solve the problem by force, i.e., relations of the dispute do not escalate into active opposition. But there cannot be a conflict without dispute.

Types of dispute of pedagogical interaction's subjects are revealed. Firstly, from the point of view of the subject, there are three kinds of dispute. First, when

one of the entities has actually correct knowledge, can give the correct answer on the subject of the dispute and prove it. Another entity does not possess such information. Therefore, the dispute boils down to handling sources of information or other elements of evidence. This kind of dispute is due to the fact that one entity has accurate information about the subject matter of the dispute, but still enters into it, although it is clear in advance the outcome; and the other, without having exact knowledge, shows a clear stubbornness. The second kind of dispute occurs when all entities have significant identical knowledge and can prove it. The dispute of this kind occurs most often when the parties of the dispute have failed to understand each other due to a variety of reasons (different level of intelligence, obscure for the other side the proof methods) Such disputes as it may seem paradoxical, could lead to a prolonged misunderstanding, which can lead to conflict. The third kind of dispute occurs when none of the subjects have reliable information and the correct answer on the subject of the dispute. Such disputes may be protracted, stormy. They often lead to disappointment of one or all the entities, when their incompetence is revealed.

Secondly, in terms of goals, we can distinguish three types of dispute: apodictic, eristic and sophistic. Apodictic argument boils down to finding the right answer. In addition the means to achieve the goal are the laws and the rules of logic. The consistency of reasoning, reliability and completeness of reasoning underlie apodictic argument. In such disputes the disputing parties are interested in the knowledge of the truth and sincerely seek it. Apodictically dispute arises when there is a problem. It is to such disputes to the greatest extent is related the statement that truth is born in disputes. Eristic controversy involves concepts such as “reasoning”, “evidence” and «credibility.” The arguments may be subdivided into (a) demonstrative but not convincing; (b) convincing, but not demonstrative; (c) demonstrative and convincing. Victory in dispute can be achieved using any of these arguments; it depends on the personal qualities of the debaters, competence, social attitudes. However, in eristic controversy a principle position of the debaters is assumed, their desire to achieve their goals, without deceiving the other side. Sophistical argument to a greater extent reflects the essence of person, which is in a relationship with other people often pursue its personal (or group goals), disregarding the interests of the other party. In such disputes intentionally the requirements of the law of identity are violated through the use of the double meaning of the utterance, intentionally errors are made of the “main argument”, etc.

Methods of conducting the dispute are clarified, as a method of pedagogical interaction. Firstly, it is a technique of deliberate distortion of starting points: 1) proof, in which there is no possibility to make an impartial opinion on the subject matter of the dispute. Such a proof leads to a sense of anger, pity, ridicule, panic,

etc.; 2) to discredit the opponent's personality, in which, instead of challenging his opinion on the subject matter of the dispute, personal qualities are discussed; 3) rabulistika, which consists in the fact that one of the entities deliberately distorts the meaning of the utterance of another, deftly covering it. The second group of methods is designed, having lulled the vigilance of another subject, to impose predetermined conclusions: flattery; substitution of discussion the truth statements (statements) weighing its usefulness; "Linguistic cosmetics", which allows the same thought to be expressed in different ways. The third group of methods is based on a mixture of fact and opinion: a reference to the authority; striving to present the statement of another entity as nonsense or his personal opinion. The fourth group of techniques aimed at the victory or failure of the dispute: "stick technique," based on intimidation of another entity; "Trojan horse" when debaters take the contending side of their opponent, to distort his position, bringing them up to the point of absurdity. The fifth group of methods is to block, to block access to information for the other party, which itself possesses: silence; false; half-truth is closely linked with the lie.

Criteria and indicators of co-creation of the teacher and students

The survey of teachers and students enabled to find out the criteria and indicators of co-creation (see. Table 1).

TABLE 1: CRITERIA AND INDICATORS OF CO-CREATION OF THE TEACHER AND STUDENTS

	Criteria	*Indicators*
1.	joint activities	1. Spatial and temporal co-presence of co-creation's entities. 2. Having a single target (a single "target area"). 3. Co-management activities. 4. The separation of functions between entities. 5. The emergence of interpersonal relations.
2.	Creative direction of joint activity	1. The solving of the unknown (partially known) problem. 2. "subjectivity" of creativity - a novelty for the entities of joint activity.
3.	The interdependence of entities' development	1. Development of communicative, reflexive abilities. 2. Update of the need for self-realization, creativity.
4.	Dynamics "self-processes" and "mutual processes"	1. Activating of the "self-processes" - self-determination, self-education, self-cognition, self-control, self-estimation, self-government. 2. Activating of "mutual processes" - mutual understanding, mutual support, mutually consolidation, mutual learning, mutual control, mutual estimation

Table 1 show that the co-creation of the teacher and students requires willingness to entity-entity interaction and dialogue.

DISCUSSIONS

Analysis of the literature shows that the problem of pedagogical interaction's development is the subject of many studies. First of all, it is necessary to allocate research on the pedagogical interaction's classification (Zinoviev, 1975; Savin, 1987; Dyachenko, 1991; Kossov, 1995; Shaidullina *et al.*, 2015a; Kalimullin & Islamova, 2016; Vlasova, Masalimova & Alamanov, 2016). On the entities of cooperation there are the following types: "person-person", "student-student", "student-teacher", "teacher -teacher" and "team-team." By way of interaction the following types are allocated: direct (direct), indirect (mediated by the reference entity, the characters of books, movies, etc.), parallel (influence through the collective). By the type of communication in the process of interaction there are: interaction "on equal terms" (entity-entity relations), "guidance" (object relations). Depending on the content (the object) of interaction there are spiritual (communication, exchange of spiritual values, information) and practical (the exchange of physical, material goods, objects). In terms of regimentation there is formal interaction characterized by rigid links between the entities and the relative stability over time, and informal, based on personal character with a strong emotion. Various classifications of interactions suggest multifaceted and multidimensional nature of this process.

Scientists consider the co-creation as a principle, the law of creative activity (Smirnov, 1995); the union of two "pedagogies" - "cooperation" and "development" (Krayevski, 1997); a special type of education involving the use of productive practices, independent solution of cognitive tasks in an unobtrusive means of the teacher in case of need (Bukhvalov, 1993). There are studies where the concepts "co-creation" and "cooperation" are considered to be conjugated (Kan-Kalik & Nikandrov, 1990). The peculiarity of pedagogical creativity is that it is always co-creativity. It is closely associated with the work of the entire team of teachers and every student (Zasobina & Mohammed, 1997). The authors refer to different versions of pedagogical co-creation, where the position of the teacher is realized in different ways. For example, when the co-creation in the pedagogical process reminds acting and acts as the stage action; when the position of "teacher" is presented by the role of "conductor", and the third position is conventionally called a "mirror" in which constantly the slightest nuances of creative activity of students are reflected. We believe that only in the case of entity-entity interaction pedagogical creativity is realized as a co-creation. Creativity is the prerogative of a free personality, capable of self-development. It is more correct to say that creativity is a way of "personal" existence which is opposed to the impersonal existence, which in its extreme "purified" form kills a person. This resulted in the goal of our research.

CONCLUSION AND RECOMMENDATIONS

Practical recommendations for the optimization of pedagogical interaction of teachers and students at the University are as follows. Firstly, the effectiveness of

pedagogical interaction of teachers and students will increase with the application of organizational - procedural, productive - practical, verbal - logical methods enabling to (a) create different schemes of interaction of teachers and students both vertically and horizontally; (b) organize the work of the students in small groups, pairs; (c) to engage students in the study and production planning, collective -individual thinking activity during lectures and seminars. Second, the impact of pedagogical cooperation of teachers and students will increase under the condition of realization by seminars of a set of functions (explanatory - systematizing, control - evaluative, information - cognitive, educational - developmental, general cultural, practice - oriented). Third, the importance of co-creation of the teacher and students will increase by uniting of co-creation's entities on the basis of common cognitive interest and the ability to meet their own learning needs (organization of seminars - discussions, seminars - studies, training disputes). Fourth, improvement of pedagogical interaction is achieved with a set of requirements for the organization of seminars: (a) information exchange, (b) teacher's focus at enhancing the cognitive activity of each student, (c) the cooperation of students with the teacher, (d) the execution by the students of the role of the discussion's participant, an opponent, the thinker. Fifth, the impact of co-creation's development of the teacher and students is increased in conditions of formation of a single "target area" of entities, distribution of functional responsibilities and co-management, development of communication and reflective abilities, up-dating of needs in creativity. Sixth, the effectiveness of pedagogical interaction is increased in case of discussion at the seminars of conditions of students' social success, their readiness for self-organization and self-realization. The study results allow outlining prospects for further research of the problems that are associated with the development of special programs of optimization of pedagogical interaction of teachers and students at the university. Paper Submissions may be useful for university professors; Staff of continuous professional training and retraining centers in the selection and structuring of the content for professional development of the teaching staff of universities.

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