

**18<sup>th</sup> PCSF 2018**  
**Professional Culture of the Specialist of the Future**

**USING IDEAS OF DELIBERATIVE DEMOCRACY IN HIGHER  
EDUCATION**

Konstantin P. Zakharov (a), Gulk Elena B. (b), Tatyana A. Baranova (c)\*

\*Corresponding author

(a) Peter the Great St. Petersburg Polytechnic University (SPbPU), Polytechnicheskaya 29, Saint Petersburg, 195251  
Russia, sladogor@gmail.com, 8(904)518 17 43

(b) Peter the Great St. Petersburg Polytechnic University (SPbPU), Polytechnicheskaya 29, Saint Petersburg, 195251  
Russia, super.pedagog2012@yandex.ru, 8(911) 999 36 23

(c) Peter the Great St. Petersburg Polytechnic University (SPbPU), Polytechnicheskaya 29, Saint Petersburg, 195251  
Russia, baranova.ta@flspbpu.ru, 8(921) 756 95 29

***Abstract***

The paper considers peculiarities of the educational process at the high school. This process is based on fundamental principles of deliberative democracy, which aim is to create conditions for comprehensive spontaneous communication between learners at the level of primary communication links by using techniques of associative dialogue, organization of peer-to-peer learning in small groups, producing the academic work in the written form. The approach of deliberative democracy to the design of academic activities of post-graduate students is focused on increasing efficiency of the educational process, stimulating self-development and personal growth of study-program enrolees. While carrying out the research we involved the students into the consistent academic community to create the conditions for productive cooperation for reaching the goals of the educational process. The outcomes of teaching experiment revealed that the cooperative academic environment based on principles of deliberative democracy enables students to implement the time labour costs approach in their studies, schedule their self-study work, contribute to the personal growth of their peers, strive for individual achievement. The outcome of our study is to provide guidelines for teachers to develop the process of education on principles of deliberative democracy.

© 2018 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Deliberative democracy, democratization of education, Didactics in higher education, peer review, small groups, time labour costs.



## **1. Introduction**

An urgent problem of the modern didactics in higher education is democratization of education, related to the transition to deliberative democracy (Makarova, 2012; Razinkina et al., 2018). The word “deliberation” implies consideration, thinking, contemplation, reflection, cogitation, discussion, dialogue, weighing up, carefulness. Habermas (2006) considers dialogue as a means of communication within the framework of universal communication society. Communication is a prerequisite of this unity, in spite of its internal differences and contradictions; it determines the ability of the society to create and to develop. The concept of deliberative democracy is based on principles of comprehensive spontaneous communication at the level of primary communication links (Uglov, 2011); it is considered in terms of social structure of society (Sukharev, 2008; Khazin, 2016; Kalashnikov, 2007).

## **2. Problem Statement**

Development of the educational process by using the principles of deliberative democracy implies the following: creating conditions to improve primary communication between learners; providing learners with interpersonal arrangements; careful thinking over the content of a course.

Implementation of these principles requires new organization of education: education in small groups, appointment of the coordinator for every group, using techniques of associative dialogue (Zakharov, Kasyanik, & Gulk, 2015), targeted at intense communication between learners during studying new material, student peer review. Responsibilities of the coordinator include: 1) coordinate interaction between team members; 2) keep records of time labour costs of all group members; 3) inform the teacher of all time labour costs; 4) be an intermediary between learners and the teacher.

## **3. Research Questions**

New approaches to building the educational process require its restructuring, which assumes the change of the structuring dominant. Frontal teaching, which has dominated today’s educational process, turns into working in pairs, but not in closed pairs, - in dynamic pairs, whose members regularly change. The core teaching is interaction in pairs. The increase in elements of the structure in group communication leads to the decrease in the significance of every element in the structure. Consequently, it forms the following correlation: the more elements in the structure, the less significant each element is in the structure. On the contrary, the fewer elements in the structure, the more significant each element is in the structure. Forming small groups, using techniques of deliberative dialogue (communication in changing pairs), we enhance significance of each student (postgraduate student).

We structure the educational process so that every learner could implement his/her meaningful transactions through communicating with other participants of our academic community. What is of special importance is the content (the meaning) of communication that will result into a collaborative product.

## **4. Purpose of the Study**

Culturology has long known the fact that the culture with the most surviving potential is the open culture, based on the exchange (e.g. texts) with other cultures. In humanitarian systems culture bearers are

defined as people who exchange products of their work. The product of the academic work is the written text of the following types – abstract, report, review, essay, assessment sheet. These are central pivots for communication, interaction and new product development.

In this connection our purpose is to make the process of producing the academic work efficient, time-consuming and contributing to self-development of post-graduate students.

Abstracts are written for scientific papers on the subject of postgraduate research theses, which reflects various didactic aspects. In order to have the abstract approved, it has to be peer-reviewed by other postgraduate students. A reviewer estimates (by a 5-point scale) how the abstract meets the requirements (up to 25 points) – 1) the main idea (core statement) of the author, argumentation; 2) which questions are touched upon in the paper (questions can be open, closed, but they have to be complex, coherent and logical); 3) why, in your opinion, it is worth reading this paper, why it can be important for our study course; 4) preferred quote; 5) what is your personal interest, which is in line with your experience.

Abstracts are reviewed and the reviews have to contain judgements on how the author complies with requirements and how the author is ranked.

Reviews are fulfilled to estimate a methodological plan of a study class (curriculum).

The essay genre reflects postgraduate student’s experience before starting the course. The essays are reviewed twice and assessed in accordance with a 10-point scale.

An assessment sheet is filled in by a postgraduate student (part of an assessment sheet, filled in by both a postgraduate, as self-assessment, and by experts, with further discussion, is presented in Table 1). Each of 13 sections are estimated by a 6-point scale.

**Table 01.** Structure of class description (methodological plan)

<b>Structure of class description</b> [how the received product (text) reflects the following positions]:
1) Methodology selection (literature review)
2) For whom? Title, age, quantity of learners
3) What is learnt? Summary of the class issues
4) The class role within the academic framework (subject, study bloc, module, course)
5) Purposes and objectives –didactic (playful)
6) Facilities – equipment: study / play materials
7) Class planning: scheduling, stages, deadlines
8) Organizational forms of academic work
9) Assessment, testing, progress checks
10) Result interpretation (reflection)
11) Anticipated results
12) Message to organizers (strengths, weaknesses, risks)
13) General conclusions

Thus, we fixed 5 pivotal points of mutual interest (growth points). Every postgraduate student has to read a scientific paper and has to write text-1 (abstract), can have his/her work reviewed (no more than 3 reviews), has to compose an essay (text-2) and has to have it reviewed, has to write his own review (text-3), has to make a methodological plan of a tutorial (text-4) and to gain the assessment from other postgraduate students, has to write his/her own expert assessment for methodological works of peer students (text – 5). This is an ideal situation for students' self-study work as a variant part of the curriculum (only text-1, text-5 are included in the invariant part of students' self-study work). Every postgraduate student can create 2-3 texts on their own, and 2-4 texts as a response to the text of peer students, with whom he/she has to communicate with. In our case the maximum number of postgraduate students is 50, the total number of such texts is  $50 \times 12 = 600$  (on the whole, 333 texts were created, which is more than a half of the total number).

Actually, we created conditions for implementing meaningful transactions based on the written text and related arrangements.

We structure the educational process in such a way as to encourage every participant to implement his/her maximum meaningful transactions with other members of the academic community.

We found out the following relationship: the more intense communication the learner has with other academic subjects, the more significant role he/she has, and the higher the learner is ranked in studying the subject.

Having established the interaction between learners, we hereby create conditions for comprehensive diverse communication in an academic group, enhancing dialogicality of the educational process, stimulating involvement and cognitive skills of learners. Hence the academic group becomes a self-study community (Senge, 2011).

Special importance is attached to such a format of education in postgraduate study, when learners acquire not only professional skills, but develop research and pedagogical competencies. The above-mentioned implies research on integrating the principles of deliberative democracy into the process of training postgraduate students particularly up-to-date.

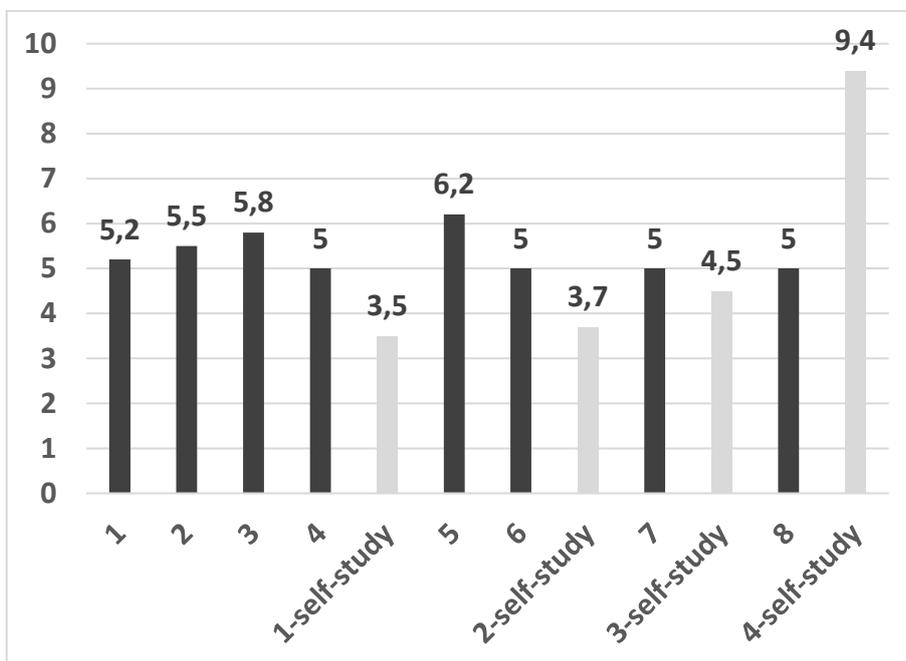
Studying efficiency of training postgraduate students at the engineering university, we determined theoretical and methodological approaches to the educational process by using the learner-centered approach to building humanitarian systems (Gusinsky & Turchaninova, 2003; Guzeev, 2006) and principles of deliberative democracy. Taking into account such approaches, we developed the course "Pedagogy of higher education" for postgraduate students at the engineering university and tested the course experimentally.

## **5. Research Methods**

The research methods we use are the following: theoretical – overview of psychological and pedagogical literature; empirical – questionnaires, performance analysis, expert assessment, testing; methods of data processing – mathematical statistics methods.

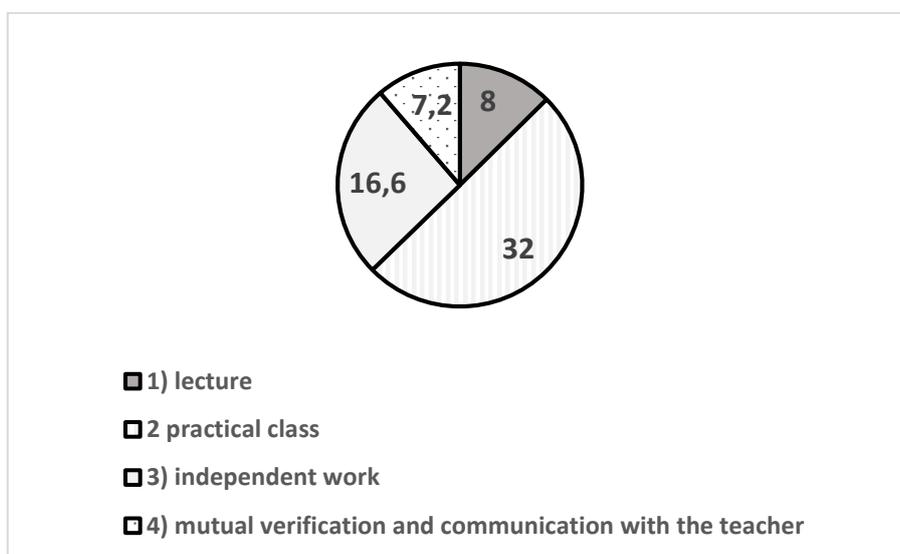
Planning the educational process, we used ranking accumulation system, based on time labor costs. All the time postgraduate students spent on studying some course was counted and the data were

ranked. This is presented in Figure 1. All the postgraduate students spent their time on studying the course steadily.



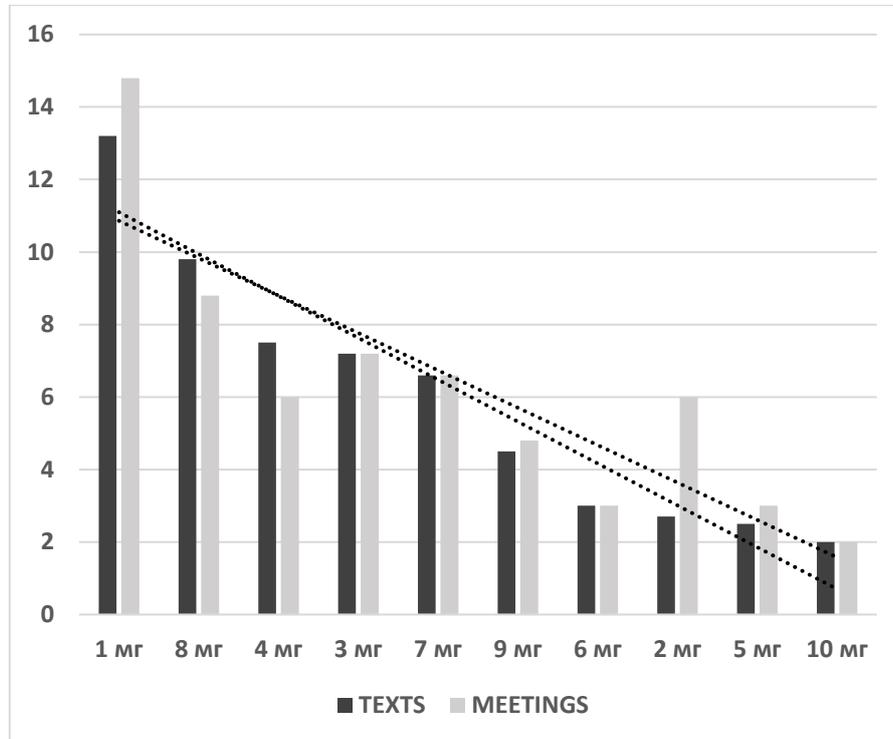
**Figure 01.** Time labor costs per a postgraduate student for 8 academic weeks (contact hours and self-study)

We used such an assessment system before, but this result is considerably better. As a whole, the course amounts to 2 credits (76 academic hours), among which 12 hours of the course is scheduled for examination. The pie chart shows that, on average, each postgraduate student spent on studying the course 63.8 hours, among which – 1) 8 hours are spent on lectures; 2) 32 hours are spent on tutorials; 3) 16.6 hours are spent on self-study and 4) 7.2 hours are spent on peer-reviewing and consultations with a lecturer/instructor. The above-stated information is presented in Figure 2.



**Figure 02.** Average time spread for each postgraduate student studying the course [lectures, tutorials, self-study, peer-reviewing and consultations with a lecturer]

Figure 3 presents information that reflects the ratio between created texts and implemented transactions in each group of students. Obviously, almost every text implies communication, hereby the number of texts equals the number of transactions. Only members of the 2<sup>nd</sup> group showed communication in excess of the created texts (peer-reviews).



**Figure 03.** Number of texts and transactions in 10 groups for the course (per one postgraduate student)  
 [texts; communication; linear (texts); linear (communication)]

## 6. Findings

It is advisable for teachers, lecturers and instructors, who would like to use principles of deliberative democracy, to follow the guidelines:

1. Read publications on methodology of learner-centered education, sustainability of humanitarian systems and fundamentals of deliberative democracy. It is essential for goal-setting, or for creating academic community.
2. Develop a ranking accumulation system for a particular course to assess student performance, based on time labor costs and expert estimation on behalf of a lecturer, or a student in charge. This ranking system has to allow for coefficients of each activity. Ranking is conducted every week.
3. Think over restructuring organisational forms of education in order to enhance significance and number of meaningful transactions. Such forms include interactive forms of education, especially associative dialogue techniques.
4. Make a decision about the pivotal point of communication with students. We call it a point of common interest, mutual growth. This includes texts, graphs, charts, tables, labs, projects etc.,

- created by students individually, in pairs or in small groups. The main prerequisite is to work out requirements and assessment criteria.
5. At the first meeting it is advisable to discuss with students the format of communication, anticipated results, forms of assessment, types of information environment. This is important for integrating principles of deliberative democracy, with common values and attitudes for collaborative learning determined at the meeting.
  6. Divide students into small groups (no more than 5 people) and select a coordinator, whose responsibilities include time coordination of all transactions inside and outside the group. The lecturer (teacher) communicates with group members via the coordinator.
  7. Schedule time, fixed for lectures and tutorials, for mutual discussions of performance results. Collaborative learning is a vital component for successful integration of deliberative democracy principles into education.
  8. Final reflection on compulsory part of self-study. This stage welcomes public speaking, presentations, tasks involved all the students, reports in foreign languages, public discussions, workshops.

## 7. Conclusion

Finally, taking into account the principles of deliberative democracy and learner-centered methodology, we managed to develop the educational process at the engineering university based on the following benefits: 1) scheduling the self-study work of students smoothly and steadily within the course; 2) improving student performance ranking for those students who experience interpersonal cooperation; 3) enhancing the quality of education; 4) developing students' universal competencies (communication, teamwork, leadership, self-organization and personal development).

## References

- Gusinsky, E.N., & Turchaninova, Y.I. (2003). *Introduction to the philosophy of education: tutorial for students of pedagogical majors*. Moscow: Logos.
- Guzeev, V.V. (2006). *Foundations of educational technology: didactic tools*. Moscow: Sentyabr.
- Habermas, J. (2006). *Moral consciousness and communicative action*. St. Petersburg: Nauka.
- Kalashnikov, M. (2007). *Future humanity*. Moscow: ACT Astrel.
- Khazin, M. (2016). *Stairway to the sky: dialogues about power, career and world elite*. Moscow: Ripoll Classic.
- Makarova, N. S. (2012). *Transformation of didactics in higher education: study guide*. Moscow: Flinta Publishing.
- Razinkina, E., Pankova, L., Trostinskaya, I., Pozdeeva, E., Evseeva, L., & Tanova, A. (2018). Student satisfaction as an element of education quality monitoring in innovative higher education institution. *E3S Web of Conferences*, 33, 87-93. doi:10.1051/jbandc030432018.
- Senge, P.M. (2011). *The fifth discipline: the art and practice of the learning organization*. Moscow: Olymp-Business.
- Sukharev, M.V. (2008). *Evolutionary management of socio-economic*. Petrozavodsk: KarSC RAS.
- Uglov, D.V. (2011). *Discourse of social justice as a factor of forming the society of deliberative democracy*. Tambov: Pershin P. V. Publishing.
- Zakharov, K.P., Kasyanik, P.M., & Gulk, E.B. (2015). Collaborative Learning Techniques for Developing Communicative Competencies in Large Classes of Engineering University Students.

In *Proceedings of 2015 International Conference on Interactive Collaborative Learning 2015 Conference* (pp. 970-974) Florence, Italy, USA: Institute of Electrical and Electronics Engineers Inc, DOI: 10.1109/ICL.2015.7318159