

Students' research activity as a contribution to modern university**DOI:** <http://doi.org/10.26758/8.1.30>

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Abstract

Objectives. The present article aims to analyze some aspects of student's training and the quality of lecturing as a specific basis for modern university support students' integration to research activities. The article focuses on how students assess the educational process, what is the quality of teaching, what part of the training is associated with the development of research activities among students; in what specific research activities students are participating. Special attention is paid to Ph.D. students as actors who have already made their choice for linking with research. Another important aspect of the analysis is the role of the family as an environment that stimulates and supports young people in their choices, preferences, and interests.

Material and methods. The paper is based on results obtained through quantitative as well as qualitative methods in the course of research projects carried out in 2013, 2015, and 2017 at South-West University (SWU). The main methods of obtaining information are focus groups and survey conducted with students from bachelor and master programs as well as with Ph.D. students in the Faculty of Philosophy, SWU.

Results and conclusions. The basic conclusion of the study is that the quality of education and the formation of creativity skills and student's research activity are related to the development of the modern university and the high level of education and training. Research activity forms many qualities that have both professional and social character and are important for the future realization of young people. The development of doctoral education is a prerequisite for the reproduction of the research potential of the university, so investments aimed at doctoral training are of great importance for the future of the university system and the stimulation of young people to develop their research workload.

Keywords: Ph.D. research activity; university; quality of education; departmental environment.

Introduction

Development of Bulgarian higher education is connected with improving various training aspects, research activities, and teaching methods. One of the aims of higher education is to stimulate individuals to form a positive attitude towards the study process and to improve one's qualification and flexibility. The expansion of higher education brought about a worldwide increase in the number of universities. This growth has led to the establishment of new models and methods of education, which, in turn, have created a few challenges related to the efficiency and quality of the offered education (Royal, 2011). The quality of higher education reflects the relationship between society and tertiary education institutions; it is also a combination of various scientific, social, cultural and economic factors, revealing the significance of market economy as a tool for controlling higher education (Furst-Bowe, 2011, p.5). In a constantly changing world, quality of education is a continuous course of action, which depends on the positive outcome from the relationship between various actors, i.e. lecturers, students, parents, state institutions, and private partners.

The university is the institution that provides unity of training and research and in this sense focuses its efforts on the formation of Ph.D. students such as social actors who ensure the continuity of scientific work and research activities. The issues related to doctoral training are particularly important and current today. They include the quality of doctoral studies, the qualifications of the supervisors, the skills of Ph.D. students, the development of teamwork and various forms of collaboration, the enhancement of publishing activities and the creation of research networks of Ph.D. students from different national and European universities. Ph.D. is based on high-quality bachelor's and master's degree education because only good theoretical and methodological preparation implies a high level of performance of the doctoral program. Moreover, it is the lecturers in the bachelor and master's programs who prepare the Ph.D. students. In this connection, it is the correlation between variables referring to teaching process and the learning experiences of students in the context of higher education. The study leans on the thesis that university system encompasses interrelated organizational practices and the very understanding of these relations is critical for achieving the desired results.

The present article aims at analyzing several important aspects of rationalizing university education as an environment of intellectual and research transmission as well as supporting the high quality of students and Ph.D. students training, formation skills for research work and stimulating a communicative environment in the department.

This article is an analysis of the students and their point of view on the current inclusion in different research activities.

Material and Methods

The analysis is based in the empirical plan on several sociological surveys, used quantitative and qualitative methods, and covers the period 2013 - 2017.

- The survey "Integration of social- psychological sciences in a globalized world" conducted in 2013 in South-West University (SWU) with team leader Prof. Valentina Milenkova. Two methods were used: structured interviews and focus groups. The sample was unrepresentative and included 290 students from various faculties of the university; the sample was made under an experimental design scheme. The other method used was a focus group. There were three focus groups carried out with students and Ph.D. students from Sociology, Psychology and Political Science specialties of SWU.

- A survey „Cultural universals in the academic environment” was carried out in 2015 at SWU with students and Ph.D. students from Social study specialties: Sociology, Political Sciences, and Psychology; there were conducted 5 focus groups. Team leader of the project was Prof. Valentina Milenkova.

- A survey in 2017 carried out under the project “The Role of Ph.D. students in the modern research process: towards creating highly qualified and proactive staff” in the Faculty of Philosophy at the South-West University with team leader Prof. Boris Manov. The study aimed at showing the place of Ph.D. students in the contemporary research process, as well as the improvement and support of their academic work by their thesis supervisor, department, and the family. In the process of the survey, 51 Ph.D. students from all majors of the Faculty of Philosophy (Psychology, Sociology, Political Science, and Philosophy) were questioned anonymously. The age range was from 24 to 66 years of age. The number of women was 36, and men were 15, which raises the problem of feminization of Ph.D. studies as a degree in the educational and academic training of researchers.

Apart from Ph.D. students, 130 B.A. and M.A. students from all majors of the Faculty of Philosophy were also questioned. B.A. students were 53, and M.A. students were 77. The research team added the opinions shared by B.A. and M.A. students to the information obtained about Ph.D. students because it was important to study the readiness of B.A. and M.A. students from the teaching programs of the faculty to engage in research activities; whether they had been involved in such activities; do they wish to continue their education in a Ph.D. program; do they receive support from their milieu – colleagues, friends, and family.

The main methods of information gathering were focus groups and survey conducted with graduate students, bachelor and master students in the Faculty of Philosophy, SWU.

Results

We have assumed that the high quality of doctoral training depends on the high quality of bachelor's and master's degree education. In this respect, in the quantitative study of 2013, we put the following question to the students: - How do you evaluate the study process and the quality of teaching?

The assessment in education is a two-way process between two sets of actors: 1) lecturers and students and 2) students and lecturers. Assessment of students' achievements should be impartial, without involving sympathy or antipathy; it brings into focus the real students' abilities and personalities (Brown, 1994). The final mark is a result of accumulation and interpretation of gathered information, results or skills; as a consequence, the assessment reveals the degree of correspondence between achievements and established standards. The assessment in education gives a clear notion of teaching and learning practices and their effectiveness. From this point of view, it is vital for the evaluation system to be reformed and renewed, to improve the old methods and to implement new ones.

The evaluation is a complex method which gives information about: 1) level of knowledge of the learning groups; 2) the progress of educational milieu – the professionalism of lecturers, the organization of classes; and 3) the set goals which need to be achieved. The object of evaluation is the whole system in the different aspects of its functioning – practices, experience, innovations, policies, and reforms. Evaluation does not have only controlling functions; it also has an encouraging and prognostic role, since its meaning is to reveal student's potential. Generally, students' achievements are a function of: 1) personal and social characteristics (gender, age, social origin) and 2) the educational environment (organization of the study process, lecturers' qualification and skills). Measuring resources (human, financial, social) and results give information

on the effectiveness of the system. A frequent analysis of the educational environment and student's attainments outlines good possibilities for optimization of results.

An important part of the evaluation is the feedback. The lecturers assess student's knowledge, the way of thinking, ideas and skills according to certain standards. However, any grade has not only an informative facet but it must also involve a two-way communication.

Students' evaluation of teacher performance is one of the most controversial techniques used to identify the effectiveness of teachers (Nightingale, 1996). Aleamoni (1981) offers the following arguments to support the use of students' ratings on teachers' performance:

- Students are the main source of information about the learning environment, including teachers' ability to motivate students for continuing learning, empathy or the degree of the two-sided communication between instructors and students.
- Students are the logical evaluators of quality, effectiveness and satisfaction from course content, methods of teaching, textbooks, homework, and the degree of trainees' interest.
- Student ratings encourage communication between trainees and instructors.

The main idea of evaluation is rewarding and enhancing the development of the evaluated professionals: to know how students react to their grades; whether students take the grades into account; to what extent students strive to widen their knowledge, qualification, etc.

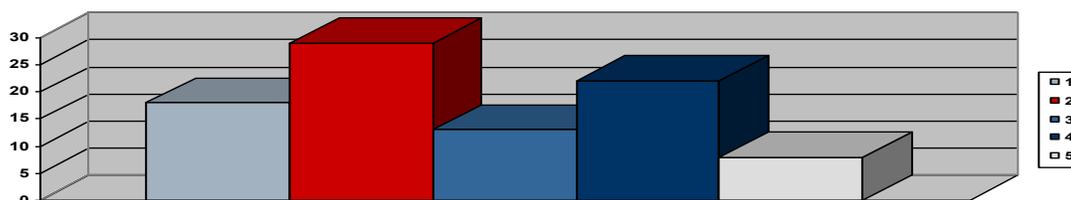
The criteria for education are based on a set of core values and concepts, which are interrelated, and those include visionary leadership, learning-centered education, and systems perspective (Furst-Bowe, 2011, p.3). In the conducted survey in 2013, the students were asked to evaluate diverse characteristics of "teachers' professionalism and qualification", such as: level of systematic organization of the study content; teachers' erudition and creativeness; quality of handouts, teaching methods and interaction during the lectures; level of dialogue with the audience; level of communication with students; fairness and neutrality in giving assessment marks (a quality system is in place at the university, and students at the end of each school year evaluate their teaching staff, their training and the teaching and assessment methods) etc.

The mentioned aspects in measuring professionalism among university teachers' have been elaborated a scale appraised by the students under a five-degree scale (from "completely agree" to "completely disagree"). The students shared the following answers:

1. Completely agree (18%)
2. Agree (29%)
3. Indifferent (13%)
4. Disagree (22%)
5. Completely disagree (8%)

It is noticed by the results that most of the respondents (47%) highly evaluated teaching skills and involvement of their university teachers (Graph 1).

Graph 1. Student evaluation of the level of professionalism of university lecturers



By demonstrating a critical approach towards the teaching process, the students from South-West University (SWU) have overtly offered their stance and motivation to raise their personal demands towards teachers' performance and skills. Approximately 1/3 of the inquired students declared that lecturers are not unbiased in assessment and do not treat all students equally. According to some of the respondents, the lecturers are not prone to interactive teaching and learning methods; also, the study revealed that teachers do not maintain an open dialogue with students. This shows that the requirements of the teachers themselves need to be increased to their work, to increase reflexivity and to consider a more diverse and creative approach.

As a continuation of the topic of the professors' professionalism are also the results of Study of the Institute for Economic Studies, Bulgarian Academy of Sciences (Zareva et al, 2014). The study analyzes the state of higher education and the quality of training that is being maintained. The interdisciplinary study (2012–2013) reveals that 31% of the academic staff gives a poor mark to Bulgarian higher education. In contrast, 80.6 % of the students define Bulgarian tertiary education as 'good', 'very good' and 'excellent'.

Only 51% of university teachers believe that Bulgarian higher education is competitive in Europe. More critical in this respect are teachers from private universities. Possible remedies for solving the problems in this sphere, in respondents' opinion, are:

- Achieving an optimal balance between state governance and the autonomy of the HEIs
- Upgrading financial and regulatory framework of higher education
- Linking education with the strategic priorities for economic development and strengthening the link higher education institutions – employers
- Encouragement of business enterprises to invest in universities through receiving tax relieves and other stimuli (change in normative framework is needed)
- Contractual relations between universities and employers (or the Chamber of commerce), state administration, scientific institutions, foreign HEIs and foreign organizations
- Introducing tougher criteria for selection of students
- Enhancing internal and external control over the HEIs; enhancing the knowledge, skills and motivation of both faculty and students
- Updating and upgrading technology, learning content and methods for training
- Funding for capable students
- Synchronization of training programs with practice (Zareva et al., 2014, p.123).

The globalization is increasingly demanding the ability to learn and acquire new skills rapidly and to adapt to new challenges and situations. The most important skill in professional aspect at the moment is the “booming” and quickly developed computer industry that is why computer skills are advisable. In general, the students believe that they have to develop and improve their personal skills during the whole life.

The University as an institution for research skills formation

The characteristics of the successful professional should be adequate to the requirements of the social situation. The increased significance of research work and research skills (Giddens, 2009) stems from their close reference to future professionalism and social status. In this regard, university education has been attaining a crucial role in the developing of research-centered training of students. One of the most important questions is whether research attitudes are inherited or acquired and formed in the process of learning and development. Obviously, the answer to this question is a complex symbiosis of biological and genetic qualities on the one hand and of created abilities and

skills on the other hand. Young people participating in the discussions have expressed the view that personal talents and predispositions have to be taken into account, the role of the family as a factor in the formation of research qualities is crucial, but also the educational institutions have a significant impact in the process. In this connection, the role of the university as an institution, which forms the research skills of the students, is growing.

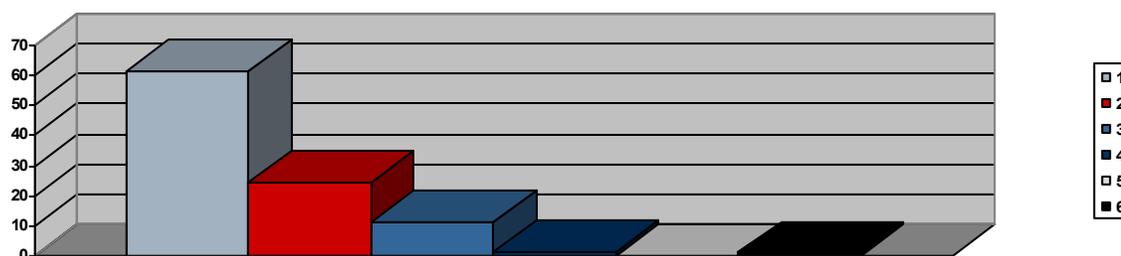
In five focus groups conducted in 2015 at the South-West University under the project „Cultural universals in the academic environment”, students shared that important skills the researcher should possess are:

- Intellectual capabilities;
- Self-improvement;
- Creativity;
- Thoroughness;
- Inspiration.

Participants in the group discussions focused on the creativity as an important skill; they say, "The researcher is the person who has to offer solutions, get out of difficulties, and deal with complex situations". In this sense, creativity becomes the decisive ability of the modern researcher. Educational institutions are largely responsible for developing this skill.

In addition the students participating in the survey (carried out in 2013) declared that: "*Education has to develop creative attitudes*": 86.0% of the respondents expressed *agreement* with that statement: 1 - fully agree 61.5%; 2 - agree: 24.5%; 3 - neither agree, nor disagree: 11.5%; 4 - disagree: 1.5%; 5 - fully disagree: 0%; 6 - don't know 1% (Graph. 2).

Graph. 2 Education has to develop creative attitudes



Formation of creativity is related to the study contents that are taught in university, to the specific rules and values in organizational aspect, to the contacts and sub-cultures, which university develops and draws individuals into different relations; university forms the research skills through the basic agents of its impact – professors and lecturers. All those components accumulate definite experience in themselves and they become bearers of particular purpose and engagement devoted to shaping in accordance with the social pattern which determines them. That is important, because through the inclusion of students into research activities:

- a) increases the acquired qualification and professional skills;
- b) gets students near to laboratories and the processes of constructing knowledge;
- c) contributes to acquiring competence through their inclusion into diverse activities (“learning by doing”);
- d) creates attitude towards learning and adoption of new possibilities.

According to the students involved in the focus groups, research is related to the development of intellectual skills and qualifications; so students should become more active and interested in training; to apply in practice the matter for instruction at lectures and seminars, to learn new things and turn into a corrective of lecturers' work, through pose the questions and asking for additional specifications.

Creativity and research activity implies complex personal development as from the point of view of obtaining specific skills and competence, as well as concerning qualities necessary for the construction of general attitude towards knowledge and research. Here are some of the qualities, promoted by research activities:

- Criticism and self-reflection.
- Openness to changes.
- Aptitude towards perfection.
- Ambition and active approach
- Teamwork.

It can be noticed that creativity as an aspect of research ability is associated mainly with activities bearing in them the store of a specialized teaching activity, understood as part of professional occupation with research. At the same time, however, along with that conception, shared among students, one has to bear in mind that the research activity is formed through routine and everyday training practices at classrooms and auditoriums as well, which is connected with assigning specific tasks at lectures, seminars, and exercises, literary studies on a definite topic, elaboration of term papers, making presentations, writing of reports and of essays.

Another way to formation research abilities in a university environment is *teamwork* i. e. "the possibility to discuss different things with the other young people during the classes", "the appearance in front of the other students", "field work". It was observed that the majority of students find attractive the social aspects of university work, namely possibilities for discussions, for establishing of contacts, so that sociability might be considered one of the motivations for including students in different leadership activities.

At every one of the indicated activities, implemented within the framework of training and assigned to students by their lecturers a specific research effort, connected with theoretical and exploratory work, with coordination of the team and distribution of the engagements of every one of the members, making of generalizations and presenting the results from theoretical and/or practical work are presumed. Those are all the important everyday efforts, which are necessary, and the students perceive them as various aspects of training.

That is why it is important to accentuate on the fact that the formation of research abilities is connected with the quality of education, the preparation of lecturers themselves, their participation in different scientific nets, with lecturers and students readiness to work together.

Ph.D. students

The topic for the formation of research activity was also developed by the project carried out in 2017 in which we asked PH.D. students: How the university should develop research skills? Shared opinions pointed at:

- Inclusion in research projects;
- Participation in conferences and roundtables;
- Writing articles on different topics;
- Elaboration of creative presentations;

All that means that the departments are primarily responsible for the way they develop the students' skills. In this context is the issue of the autonomy of Ph.D. students to make decisions relating to their work. It was discussed the choosing the title of the Ph.D. thesis. The topic is of significant importance because it assures that the research potential of the scholar is developed through it. All Ph.D. students who participated in the survey in the Faculty of Philosophy in 2017 confirmed that the topic of their theses and their academic interests coincide. Also, a half of the Ph.D. students shared that their Ph.D. thesis is a continuation of their Master's thesis. This means that there exist succession and continuity in the research work undertaken. This is a prerequisite for deepening the interests in the respective research area but it also means that there is a process of discussing and consideration of the views and plans of the Ph.D. students with respect to support and co-operation from the staff within the various departments in the Faculty of Philosophy.

The attitudes of colleagues and the overall milieu, in which Ph.D. students' training and formation as researchers take place, is significant for the complete research work. In this context, a special role is played by the supervisor who is the direct tutor and advisor of the Ph.D. student, with whom all basic ideas of the thesis are being discussed, and who follows the progress of the research work. 91.5% of the surveyed Ph.D. students in 2017 have stated that they receive full support from their supervisor.

Regarding support from the department, 91.5% expressed the opinion that they receive support from the department in which their Ph.D. training takes place.

In this sense, we can summarize that Ph.D. students at the Faculty of Philosophy, SWU in the current moment have the support, co-operation for work and achieving their goals. This cooperation comes from both the colleagues and the educational institution itself as an intellectual milieu and incentives for research work.

The Role of the family

One of the important topics studied during the survey of 2017 was connected to the support received by the Ph.D. students from their family, and friends. The family has a strong impact on dispositions towards life, future, self-image, and work. It creates a specific environment and the total set of conditions related to understanding and care (Coleman 1988).

Family background can also result in contextual differences that may affect achievement and motivation. All Ph. D. students in the surveys of 2017 declare that they have support from their families which itself turns into an important element of the ongoing work on the thesis connected to the co-operation of the family in an emotional, social, and economic plan directed to the future development of the Ph.D. students.

Young people's opinion in the survey revealed a clear relationship between family/ parent support and student achievements. In other words, parents who are actively involved in their children's education and provide a stimulating learning environment at home can help their children develop feelings of competence, control, curiosity, and positive attitudes about academics.

It is necessary to emphasize that "significant others" have a special place in the personal formation. These are:

- The family, as financial and emotional support. Family background can also result in contextual differences that may affect achievements and success.
- The role of the teachers and the educational environment and their impact and the formation of habits and skills.
- The influence of friends and informal environment as a source of support and information.

- The role of the institution – with the emphasis on the formal side as organizing courses and training.

The “middle class” families are more likely to raise their children to choose and focus on the exact sphere in education, and also of the importance of education in general. As a result, the respondents have demonstrated one very positive attitude towards research and education. It seems like students that came from poor regions are more motivated to study and to engage in research work, because this will help them to “escape” from the “village” or “small town” and to find a better job in the big cities.

According to the respondents, “*Every skill has a positive influence*”. Social skills such as “self-confidence”, “self-direction” and “risk-taking” are also increasingly important, because people are expected to be able to behave much more autonomously. “*Learning how to learn*”, “*to adapt*”, “*to change*” and “*to make sense of the vast information flows*” are now generic skills that everyone should acquire: “*It is important to be able to communicate with people and to understand others*”. What is important to the respondents lies in the opportunities to develop, participate in life, and find a good environment to be successful.

Some of the young females set the topic for the role of a woman: whether she wants to find a better and well-paid job and she could have the ability to combine professional realization and motherhood. It turns out that gender and the role of motherhood and the relationship with the children remains an eternal theme and can become a problem for the young families and the professional choice of women.

Discussion and Conclusions

One of the substantial conclusions of the article is that the quality of education, the professionalism of the teachers, the methods of evaluation are not sufficiently appreciated by the students, both nationally and locally. It can be said that the formation of different skills related to the realization of young people is a very responsible process that takes place in the educational system. Furthermore, the development of creative skills for research and activity is always the result of various efforts. In the course of this article, the issue of the attitude of young people towards research, participation, maintenance of sustainable interest in science was discussed. The selection of young people who have a creative attitude, curiosity, interest in the new, thoroughness and author's approach is of great importance. Equally important, however, is the problem of ethics in science. The organization of continuous control and further training and education of young researchers and Ph.D. students in the spirit of scientific ethics is essential.

Challenges to university education in view of providing research skills to young people are connected with:

- Curricula and study programmes, which have to stimulate more creativity and individual approach, and to correspond to person-centered pedagogy.
- Curricula have to show higher mobility and to include more free-chosen disciplines.
- The opening of universities towards older generations, which might turn the universities into real “life-long learning institutions”. It is necessary in connection with that distance training forms to be developed further on.
- The activation of project work at universities level as well as an accent on assigning different creative tasks to students in the process of training.

University education is an environment of intellectual interaction; it has a central role in delivering key skills to students, as it is research-centered and focused on attaining knowledge and qualification.

To summarize, the future of the Bulgarian higher education is expected to refer to developing of prioritized academic disciplines and relevant learning content, as well as to target career orientation and investment in scientific research and innovation.

Ph.D. programs in the Bulgarian conditions are an important factor for the formation of academic staff. They are a period of several years during which Ph.D. students develop their research skills connected to analyticism, creative thinking, sharing ideas, discussions, conducting empirical work. It is namely this period, which is important for the future research work, and a more active and responsible attitude is needed in an institutional plan to the development of Ph.D. students because the future of science depends on their qualities and responsibilities.

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