

The Role of Students' Classroom Independent Work in Higher Educational Institutions

Zhanna V. Smirnova^{1*}, Marina L. Gruzdeva¹, Zhanna V. Chaykina¹, Olga S. Terekhina¹,
Aleksandra A. Tolsteneva¹ and Natalya H. Frolova²

¹Kozma Minin Nizhny Novgorod State Pedagogical University, Nizhny Novgorod - 603950, Russian Federation; z.v.smirnova@mininuniver.ru, gru1234@yandex.ru, annachaykina@mail.ru, olga.terekhina.52@mail.ru, tolstenev25@yandex.ru

²Nizhny Novgorod branch of the National Research University Higher School of Economics, Nizhny Novgorod, Russian Federation; nfrolova@hse.ru

Abstract

Background/Objectives: The paper reveals the role of classroom independent work in education establishments. **Methods/Statistical Analysis:** The structure and content of independent work in higher educational institutions are represented. The significant criteria of students' independent work influence on shaping graduate's professional competence are identified. The main modern forms and methods of independent work are considered. **Findings:** The paper includes a research within the framework of polling of teachers and students. The purpose of using classroom independent work in training future specialists is revealed. Issues of independent work of K. Minin Nizhny Novgorod State Pedagogical University's students are considered. Personal data of teachers and students who took part in the experimental activity are analyzed. Requirements for intensification of independent work in higher educational institutions are examined. **Applications/Improvements:** Two main trends of educational process building based on independent work are considered.

Keywords: Classroom Independent Work, Forms and Methods of Independent Work, Independent Work, Modernization, Professional Activity Effectiveness, Revitalization

1. Introduction

The mission of higher education is personality formation of a specialist capable of creative thinking, self-development and innovation activities. This problem is solved not only by transferring knowledge from a teacher to a student. The method of student's acquiring of knowledge, using which he is able to define a problem, analyze ways to address that problem, find optimum result and prove its soundness, is of importance. Today the education reform involves a shift from the paradigm of learning to the paradigm of education. In this respect it should be noted that Students' Independent Work (SIW) is not

only an important form of educational process – it should become its basis.

The above-stated problems involve applying active methods for acquiring of knowledge in the process of education. In this context this means an increase in hours for independent work, which are aimed at forming students' creative approach to professional occupation¹.

Students' independent work refers to the complex of students' extracurricular and intracurricular independent activities in the presence and in the absence of teacher.

Independent work is carried out in the process of class hours: lectures, practical classes, laboratory works, seminars². Out-of-class independent work is working in library, at home, when doing creative tasks.

*Author for correspondence

2. Materials and Methods

When considering the issue of independent work of K. Minin Nizhny Novgorod State Pedagogical University's students we'll refer to out-of-class work. It should be noted that student's class work is active mastering of knowledge, understanding of material with the teacher's participation, this work is particularly typical for junior courses of studies. The background of arrangement of student's independent group work shows that continuity of disciplines appears to be extremely low at first years of study, there's no cross-disciplinary relation. The educational standard relating to student's provided study time is not met.

According to educational process organization by departments, the total time in hours is allocated for independent work and hours for each discipline are determined by the teacher within the curriculum. It causes a number of independent work arrangement problems: often dates for homework submission on different disciplines aren't synchronized, it leads to nonuniform distribution of independent work in time. These factors make students do works for form's sake (cribs, minimum time for performance of a task)³.

The research of the process of educating groups, which took part in the carried out experiment on classroom independent work, showed that non-independent preparation of courseworks, homework assignments becomes quite widespread. The student lost diligence for working, creative approach to running projects.

The department teachers of the university have faced the problem of efficient professional activity – motivation of students' independent work⁴.

Let's consider the solution of this problem through revitalization of independent work:

1. Practicality of the work on hand.

A student is given tasks for term papers, thesis work at junior courses of studies, so he could carry out independent work on the humanities and social and economic, natural science and general professional disciplines, which subsequently will be included in his qualifying paper.

2. Students' participation in creative activity.

Students take an active part in research activities, conferences held at the departments of Minin University and also in other Higher Education Institutions (HEI).

3. Intense pedagogics is an important motivational factor.

This method implies the use of active methods by the teacher in the educational process. These are business or situational forms of lessons, including the use of computers. Electronic educational environment⁵ Moodle of Minin University features the opportunity of using all active educational forms: holding seminars, essay lessons, etc.

4. The use of motivating factors for monitoring student's progress:

The use of a rating plan by disciplines, tests, examinations, calculation and graphic works in the Moodle system in the educational process. Under certain conditions these factors can provoke drive to competitiveness, which is a strong motivational factor of student's self-improvement in itself.

Organization of that educational form of students' independent work in HEI involves creation of conditions of students' activity, independence and responsibility not only in class but also out of class in the course of carrying out all kinds of educational activities developed by a teacher.

Currently according to higher professional education standards, half student's time budget – 27 hours per week at the average for the period of studies – falls at out-of-class work. This time can be entirely used for students' independent work. In addition, most of the time allocated for class lessons also includes independent work. Thus, there's enough time for independent work in the educational process, the question is how to use that time in an efficient way⁶.

We consider two main trends of educational process building based on independent work.

The first is strengthening of students' independent work's role in the process of class lessons, while department teachers develop and introduce new forms and methods of class lessons organization into practice.

The second involves an increase in students' activity by all kinds of independent work: preparation and writing of papers, reports, essays and others written works on given topics, doing various homework assignments, individual tasks designed for students' independence and initiative development, preparation of term projects and works, preparation for taking part in scientific conferences, shows, student Olympics, etc.

Development of a complex of methodological support of the educational process is one of the most important factors of students' independent work efficiency in HEI.

These developments allow the teacher to organize subject-specific teaching⁷.

The use of electronic educational environment Moodle makes it possible to monitor independent work efficiency.

There are the following types of knowledge check:

- initial check of students' knowledge and skills when starting to study a new discipline;

- ongoing monitoring, i.e. regular tracking of the level of learning material at lectures, practical and laboratory classes;

- intermediate check upon completion of each section or module of the course;

- self-check carried out by a student in the course of studying a discipline when preparing to examinations.

- final check on a discipline in the form of test or examination.

First of all, rating systems, which are used in many HEI, as well as in Minin University, are worth mentioning. The use of rating system allows more paced student's work in the course of academic term.

The ever-growing use of automated learning systems and monitoring systems in the educational process is important to note. They allow the student to study one or another discipline and check his level of learning at the same time⁸.

3. Results and Discussion

In accordance with the plan for introducing students' independent work in the educational process, polling of teaching staff and students who take part in the modernization project was carried out. The polling is provided at the initial stage of introducing class independent work and at the stage of project completion.

Identifying the significance of students' class independent work in the learning process was the polling purpose at the first stage.

Respondent teachers (20 persons) were offered 19 questions covering different aspects of organization and planning of class independent work in the educational process.

All questions were divided into 4 modules that characterize specific parameters:

1. Quality of students' independent work in educational process organization;
2. Students' attitude to independent work;
3. Carrying out of independent work by students;

4. Influence of teachers' personal characteristics on the organization of students' independent work.

In respect to the question that determines the forms of independent work organization, respondents were offered to choose several options. The majority of participants chose the individual form of students' learning regarding independent work and 5% of teachers suggested to combine all forms of independent work organization⁹. The result is the following:

- Individual – 75% of teachers;
- Group – 65% of teachers;
- Collective – 10% of teachers;
- Other (to gain points) – 5% of teachers.

When answering the question 85% of teachers stated that educational information focused on in-depth study of individual questions of educational material should be provided for students' independent work. 55% of teachers also put an emphasis on students' independent work when carrying out project researches.

Regarding the question about the use of different resources when preparing students' independent work organization, 80% of teachers work in the Internet and 65% work in electronic system Moodle. However, only 20% work with lending library stock of the university for preparing and searching for necessary information.

The general result of answers to the question is the following:

- Work with library stock in reading room – 25% of teachers;
- – 25% of teachers;
- Work with lending library stock – 20% of teachers;
- Work in electronic library systems – 55% of teachers;
- Work in electronic system Moodle – 65% of teachers;
- Work with teachers' blogs – 10% of teachers;
- Work in the Internet – 80% of teachers.

Teachers replied to the question "What kinds of tasks for students regarding independent work you consider the most efficient?" as follows: carrying out of project tasks that imitate professional occupation and carrying out of case tasks.

Concerning the question of the use of specialized classrooms, almost all respondents answered that they're ready to give classes in computer classrooms. The presence of computer classrooms gives evidence of improvement and expansion of university computer facilities.

The next question was "What promotes improvement of students' independent work's efficiency". Proposed answers characterize modern requirement for students' independent work organization. The general result of answers determines what improves students' independent work's efficiency most: establishing a specialized classroom fund for independent work organization – 50% and enhancement of information and methodological support of disciplines focused on students' independent work organization – 40%. In the course of polling 15% of teachers advanced proposals for efficiency improvement: development of efficient rating plan, money incentive for teachers. In regard to the question of optimization of schedule of classes, the following proposals were made: "it's necessary to make a difference between practical (including laboratory) classes and classroom independent work. It, in particular, will allow solving the problem of restricted number of specialized classrooms. Often students do not need special facilities (computers, Internet connection, library stock) during common practical (laboratory) classes, while they're necessary when doing independent work. We also need to clearly distinguish between these activities in the schedule of classes".

Based on the results of carried out research on introducing students' classroom independent work in the educational process one should pay attention to the following issues and make a number of proposal to the plan of activities.

1. To draw administration's attention to the teachers' organization of independent work in terms of its conformity with the work programme plans.
2. To recommend teachers to revise the content of independent work on disciplines they teach for the purpose of shaping positive student's attitude to it.
3. To provide a system of measures held by academic association with teachers of educational park and aimed at improvement of students' independent work organization quality.
4. To revitalize student's participation in seminars, conferences.
5. In case of early appraising on a discipline to recommend taking into account the extent and quality of independent work a student done.
6. To consider the possibility to create an elective or short-time courses to teach students skills of independent work.

Respondent students were offered to answer 17 questions covering different aspects of organization and

planning of class independent work in the educational process.

Groups T-13-1, T-13-2, IP-13-1, IO-13-2 took part in student polling. IO-13-2, T-13-1 are experimental groups. Classroom independent work within the framework of studied disciplines of the 2nd term of 2016 was being introduced in the educational process of experimental groups' students (33 persons), while students of common groups (39 persons) weren't enthusiastic about innovations and did their best to leave the university as soon as possible.

We'd like to mention a number of questions, which, in our opinion, are of relevant nature in respect to classroom independent work.

In respect to the question that covers incentives for students to independent work, respondents were offered to give several answers. The result is the following:

- interest to gained knowledge – 40% of students;
- information value for future professional occupation – 42% of students;
- interesting forms of tasks for independent work – 24% of students;
- fulfillment of tasks to pass a test or be admitted to examination according to point rating system – 62,5% of students;
- Other (to gain scores) 1% of students;
- No specific incentives – 0% of students.

Fulfillment of tasks to pass a test or be admitted to examination according to point rating system gives the stronger impetus to the students. In addition, interest to gained knowledge, information value for future professional occupation also incite students to do independent work.

In respect to the independent work organization question, students distinguished group form – 61%, however a part of students want to study following the individual form of study. It should be also noted that 7% of students do not carry out independent work at all.

Following the polling results concerning educational information for individual study, the students chose all options, only 10% of respondents were unable to choose an answer.

The question that determined what resources of information educational environment a student use was a multiple choice question. The results are the following:

- Work with library stock in reading room – 24%;
- Work with lending library stock – 22%;
- Work in electronic library systems – 39%;
- Work in electronic system Moodle – 61%;

- Work with teachers' blogs – 58%;
- Work in the Internet – 86%;
- Other – 0%.

In accordance with polling findings students chose tests as the most optimum task for independent work.

Choosing specialized classrooms for independent work, students decided on reading room – 65% and computer classroom – 67%.

In respect to the question on the improvement of independent work organization quality, the students chose a criterion of teachers' attention to independent work organization, gain in feedback between a teacher and a student - 57%.

4. Conclusion

Thus, the carried out research of classroom independent work organization in the HEI is positive. Specific ways and forms of students' independent work organization in the context of academic curriculum, level of students' training and other factors are determined in the process of teacher's creative activity and student's creative approach to individual study.

5. References

1. Federal target program of education development for 2011-2015. Available from: <http://innovation.gov.ru/sites/default/files/documents/2014/17702/3466.pdf>. Date accessed: 19/12/2015.
2. Sedykh EP. Conceptual bases of project management education system. In the World of Scientific Discoveries. 2013 Nov; 7(43):22–31.
3. Sedykh EP, Strategic management of educational activities at the university. European Social Science Journal. 2013; 11(38):43–8.
4. Smirnova ZV, Bushueva VV. The training of specialists in higher educational institutions in the conditions of modernization of education. The International Scientific and Practical Conference Scientific Research From Theory to Practice, CNS Interactive Plus : Cheboksary. 2015. p. 169–72.
5. Smirnova ZV. Improving the quality of education in vocational education. The International Correspondence Scientific-Practical Conference of Science and Education in the XXI Century, AR-Consult : Moscow. 2015 Jun. p. 141–2.
6. Han M. Study on the model for character education and the operation of virtue training in character development education for university students. Indian Journal of Science and Technology. 2015 Apr; 8(S7):448–51.
7. Smirnova ZV. Preparation of training masters in the structure of engineering-pedagogical high school. Volga State Engineering and Pedagogical Academy: Nizhny Novgorod, 2005.
8. Smirnova ZV, Mukhin MV. Role of webinars in training specialists in the sphere of housing and communal services: Effectiveness of training experience of specialists in the sphere of housing and communal services. Mininsk University Bulletin. 2015.
9. Chanchina AV. Teaching process of professional educational institution. Publishing House, Dekom : Nizhny Novgorod, 2010 Apr.