

Modern Teaching Methods in Higher Education from the Viewpoint of Students and Academic Staff

Ieva Margevica-Grinberga^{1*}, Agita Smitina²

¹ University of Latvia, Faculty of Education, Psychology and Art, Riga, Latvia

² Vidzeme University of Applied Sciences, Faculty of Society and Science, Valmiera, Latvia

*ievam@lu.lv

ABSTRACT

During this time of rapid and unpredictable changes in the labour market and society in general, as well as due to the current crisis caused by the Covid-19 pandemic, higher education faces many new challenges. Before the crisis, European Higher Education Area Ministers of Education had already set the development of new and inclusive approaches as a priority in 2018's Paris Communiqué in order to continuously improve the teaching and learning in higher education. They had also emphasized the necessity to ensure a student-centred approach regarding the diversification of pedagogical methods. The aim of the study is to explore higher education students' and academic staffs' opinions about modern teaching/learning methods in higher education. Having analyzed the obtained data, the authors conclude that higher education students and academic staff interpret the concept of modern methods and their application and topicality in the study process differently. Recommendations given by the authors of the study are concerned with intensive pedagogical improvement among the academic staff, the acquisition of different digital techniques and online tools.

Keywords

Higher education, Innovative teaching and learning, Active engagement, Teaching methods, Student-centred learning

Introduction

Results of several previous studies and the authors' practical experience gained from working in higher education reveal that in many cases there still exists a contradiction between students' learning needs and the methods used by academic staff in the study process. Taking into account the rapid development of digitalization and the change of student generations, an academic staff has to apply more and more diverse, innovative methods and tools that involve students and encourage them to take action both in the remote study process and under traditional in-person class conditions.

The necessity for transformation in higher education was a particular focus among the Conference of Ministers of Education EHEA (European Higher Education Area) in Paris in 2018 [1] about the further development of higher education in Europe. Reacting to the situation in which European countries face new challenges, new social changes (unemployment, social inequality, migration of labour force, political radicalisation), several trends of action have been defined. Essentially, higher education has to be able to provide knowledge and skills in contiguity with these new challenges in order to promote greater intercultural understanding. EHEA acknowledges the establishment of innovative learning processes in Europe and includes the

development of student-centred learning among the topics on the agenda for the next working period. According to the analysis provided by the report of European Students' Union's- "Bologna with Student Eyes 2018" [2], student-centered learning (SCL) has become recognized as an objective measure of quality among higher education institutions. This helps establish that SCL is not about satisfying the immediate demands of the student body, but about truly empowering students to become competent and autonomous learners for their whole lives, benefiting their personal learning and the quality of education across their institution (European Students' Union, 2018, [2]). The ESU study points out that, despite the fact that SCL envisages students' active participation in the study process and their becoming the co-creators of the study programmes, the quantitative data still show the problems in implementing this aspect.

The approach of innovative teaching and learning methods is one by which educators would like to motivate and inspire enthusiasm and engagement among students for lifelong learning. Many students fail to reach learning outcomes not because they lack sufficient knowledge or do not have well-developed learning skills but because the study process continues to use only traditional methods that do not involve students or motivate them to cooperate with each other.

There are still university researchers who are convinced that the key essence of learning is to transfer knowledge to students, using the traditional synchronous model of teaching [3]. In reality, however, students learn by doing, practicing and discussing. This fact is reinforced by the use of innovative teaching methodologies and learning environments. Thus, the main objective of an academic staff is to facilitate learning, to motivate, encourage and support students, inciting their inquisitiveness and research skills to attain their academic goals.

Recent research on learning methods, however, emphasises the need for a symmetrical and smooth integration of innovative and traditional teaching practices, creating a more complex approach to teaching and relinquishing the dichotomy between traditional and innovative teaching practices [4]. Furthermore, distance learning techniques are requiring a new blend of technology-based asynchronous teaching methods, which has the following advantages: student motivation, time flexibility and reducing overcrowded classrooms [3]. Other studies on student-centred methods also confirm these findings [3] and describe both the benefits and the various barriers to mixing these methods.

Several researchers of pedagogy [5, 6, 7, 8] enumerate different forms of innovative teaching/learning methods that can be adopted in the study process instead of the traditional lectures and group work; for example, short lectures, simulations, role-playing, portfolio development, incident process, flipping classrooms, visualisation, self-learning, gamification, crossover learning, computational thinking, etc. Dialogic teaching, problem-based learning (PBL) and other pedagogical techniques [4] are also mentioned as effective methods. The researchers also recommend technology-embedded teaching/learning methods, e.g., blogging, podcasts, quizzes, tasks on solving interactive problems, etc. [3].

Research also shows that very important factors influencing the use of innovative methods include peer support, sharing of experiences and positive relationships between teachers [9]. The latest research on student opinion of innovations in education also shows that, on the one hand, students rated their own innovation competence as moderately high, but, on the other, they perceived a supportive learning environment for innovation competence only to a limited degree. This means that universities might need to focus more explicitly and structurally on the teaching and assessment of innovation competence [10]. Some previous studies have also found a link between teachers' core competencies and innovative

teaching performance. The findings indicate that teachers' education competency, social competency and technological competency are positively related to their innovative teaching performance [9].

The student-centred approach and various innovative teaching methods have already rapidly entered the life of higher education institutions [11, 6, 7]; therefore, it is necessary to analyse students' opinions about them. A study comparing the experiences of students enrolled in technology-based programmes with those in traditional and innovative courses shows that students enjoyed the flexibility of a more student-centred approach but struggled with understanding assessment and time management within self-directed transdisciplinary coursework [12]. Scaffolding students in these areas may help students make an easier transition toward more student-centred learning environments [6]. The data obtained from the University of Latvia annual questionnaires, 2018 [13] indicate that students recommend that academic staff apply more modern and diverse teaching/learning methods. This fully coincided with the willingness expressed by the academic staff to master innovative methods for working with students in higher education. Some researchers from different universities have also studied student feedback on courses that have introduced innovative methods [4, 12]. Comparing the perspective of students and faculty on remote innovative study methods, the researchers found that, from the students' perspective, the positives were that they developed more critical thinking, problem-solving skills, computer skills and technical skills, while the lecturers' perspective was that they better formulated course tasks, provided a variety of feedback, and when able to meet for in-class activities, they were more effective [3].

As stated above, research has shown that students rate their own innovation competence moderately highly, but perceive their learning environment to be supportive of innovation competence only to a limited degree. This means that universities might need to focus more explicitly and structurally on the teaching and assessment of innovation competence [10].

The latest study at the University of Latvia was performed as part of a project in the Study Development and Management Improvement Programme, «Ensuring better management at the University of Latvia [13]. The results reveal that all the academic staff who participated in the survey indicated that they require training and/or to be given examples of best practices in order to implement their courses at the intended level of quality. The educators ranked in order of importance: the willingness to master innovative

and effective methods in their work with students; methods of organising students' independent work; and the implementation of studies in the e-environment.

Methods

Taking into consideration the fast development of diverse innovative teaching/learning methods, the University of Latvia implemented an Erasmus+ project, "Entrance to Future Education" (EFE) (2017-2019) [14], emphasising modern, inspiring, interactive, active participation-oriented teaching/learning methods in higher education and organised professional development courses for the academic staff.

The authors of the article, based on the researchers' [15] findings on the optimal number of participants in the focus group discussion, formed groups so that they were optimal to receive different views and so that the groups were manageable and the discussion constructive.

During the project, the authors performed a qualitative study using seven focus group discussions with students and 4 focus group with lecturers as well 6 individuals, in-depth, semi-structured interviews (in person and by phone) with academic staff members (5 women, 1 man). Sixty-six students (40 women, 26 men) and thirty-eight academic staff members (25 women, 13 men) from different higher education institutions of Latvia, and from different faculties, participated in face-to-face focus group discussions. Student focus groups meetings were organised and in similar conditions. The number of participants per focus group ranged from 8 to 13 participants.

Focus groups with students were organized during the period from March to October 2018 but focus groups with the university faculty were organized from November 2018 to October 2019, every time

after completing the professional development sessions of the university academic staff that were organized in the frame of the EFE project. Focus group discussion sessions lasted for 72 (median) minutes.

Focus group discussions and in-depth interviews were chosen as the best methods for gathering qualitative data because they afford researchers the possibility of extending their knowledge of how students and academic staff perceive innovative and modern teaching/learning methods in higher education. Students and academic staff were asked questions both in the face-to-face focus group discussions and in-depth interviews about the nature of innovative teaching/learning, exciting teaching/learning methods, expectations from the teaching/learning process and the academic staff, the skills, and competencies to be developed during the study process. During the in-depth interviews, the academic staff were also asked to describe their experiences when trying out different interactive methods summarized in the project and to evaluate their applicability and modernity in the teaching/learning process. In-depth interviews were conducted on a one-to-one basis.

Open coding was used for the analysis of the qualitative interview data. Focus group discussions and interviews were transcribed; the coding of all categories according to themes that were described in the interview guidelines was performed, i.e., the research questions (Which methods do students and academic staff consider modern and innovative? What is the students' experience in using modern teaching/learning methods in the study process? Which methods do the academic staff prefer to use?) and themes that appeared in the respondents' answers. Table 1 presents themes and sub-themes of coding. The data in the study are presented in a qualitative summary.

Table 1. Themes and codes of student and academic staff focus group discussion and in-depth interview data

Themes and codes		
	Students	Academic staff
Theme 1 Modern and innovative methods		
Code 1	creative methods	group works
Code 2	game elements	presentations
Code 3	practical works	peer learning
Theme 2 Experience using modern teaching/learning methods		
Code 4	lectures	students' previous experience
Code 5	infrequent feedback	lack of information
Theme 3 Preferred methods		
Code 6	active involvement	finding appropriate methods
Code 7	attitude of the academic staff	students' needs, interests

To assess the quality of the study, the criteria set by Lincoln and Guba [16] were used: credibility, transferability, dependability, confirmability (See Table 2 below). The authors of this article performed the open coding in two stages.

Table 2. Strategies used to ensure the reliability of the study

Criteria	Strategy	Description
Credibility	Prolonged engagement	The authors of the study delivered sessions to course participants during which they were observed and later involved in the study. Open and trustworthy relations were established among the programme participants and the authors of the study which allowed them to get acquainted with the participants' experience and understand their background context. Participants were encouraged to support their statements with examples. Both authors of the study were present in the focus group discussions and interviews; they divided the responsibilities, i.e., one guided the interviews, the other acted as an observer.
	Observation	During the study the programme participants were purposefully observed; their statements were written down. This allowed for a narrowing of the study focus. The researchers constantly read and reread the data, analysed them, theorized about them and revised the concepts accordingly.
	Triangulation	Different sources of data and data collection methods were used. Data were obtained from the regular surveys of students and academic at the University of Latvia, the data obtained during the project, and the data from the previous studies. Each author performed the open coding separately in order to ascertain the appropriateness of data interpretation. Focus-group discussions and in-depth interviews were analysed by researchers independently, after which the interpretations were compared.
	Approbation of the obtained data	The obtained data, categories and their interpretation and conclusions were discussed with the study participants who were the source of the initial data to make sure that the researchers had accurately perceived and interpreted what the respondents had said.
Transferability	Description of the context	The study describes the context of higher education in Latvia.
Dependability and Confirmability	Audit trail	Stages of the study have been planned and described from the beginning of the study till the end.

Findings

The results are presented in the four themes covered during the focus group discussion and

interviews: 1) attitude; 2) modern teaching and learning methods; 3) support; 4) 21st century skills. The analysis of the obtained data allows the authors of this study to conclude that students and academic staff interpret contemporary methods and their applicability and topicality in the teaching/learning process differently. The participants of the focus group discussions emphasized the importance of addressing the views about teaching-learning process that students formed before the studies at higher education institutions. The challenge for academic staff is the choice of methods corresponding to students' varied prior learning experience, needs and interests. The academic staff named insufficient information about the use and introduction of innovative methods, as well as the lack of mutual exchange of opinions and sharing of experiences with colleagues about the topicalities in the tertiary didactics as problem issues. In turn, students in focus group discussions stressed that the academic staff should think about providing feedback and highlighted the importance of considering aspects of more intensive engagement for students; they also emphasised the issue of attitude and assessment, i.e., how the lecturer should communicate with students.

Examples from students' responses about importance of attitude:

"Lecturer is welcoming the students with the attitude – "Wow, students!" Everyone could recall one lecturer who came to the first lecture, sat down on the table and showed Star Wars and Harry Potter. Even if after that she never did anything like this, the impression remained. You can feel comfortable with her. Even if it's a serious topic, we really like it." (S:15)

"It is important that the teacher is interested in working with every student." (S:4)

For student's engagement referred to the study process quality (e.g., be involved in planning study process and developing learning outcomes, discussing about tasks, tools and methods used in the study process). During the focus group discussions most of students realized the importance of co-responsibility in the study process:

"Lecturers rarely "go" with us through the learning outcomes of the course and discuss them. But there are also positive examples where we can choose different ways to learn and demonstrate our knowledge. Then, as a student, you feel much more responsible about the study process. And as a result, both – high motivation to get involved and better study results." (S:43)

Speaking about modern learning methods, some students indicate that attitude and ardour will be

essential for engaging students in the study process with enthusiasm and interest:

"All lecturers are so serious. Speaking without emotions ... for that reason I'm not able to concentrate, I'm losing my attention even if I try. I can also read it in the book. The lecturer says: "I'm too lazy to do it", and comes to a lecture with that attitude, just talking about the presentation. And we, too, have no interest and motivation to do anything." (S:2)

Students assessed also the lecturer's own interest and passion for the subject, ability to mix theory with practical application, practical tasks and real-life experience as very significant.

Some answers from students:

"It was important to me that everything we did was practical and up-to-date" (S:74)

"We went to the market and did an observation. I had to do something practical rather than just sitting in a lecture." (S:81)

Students indicate also the methods mentioned in the literature [6] as innovative methods, such as different kinds of games and the use of their elements, diverse online tools, methods of giving constructive feedback directed towards improvement and role play.

Some quotes from the summary of students' focus group discussions:

"I like creative work. To draw, to make. For example, we had to choose a topic and make a social advertisement. We wrote about the air in schools." (S:49)

"I like: 1. compulsory practice, 2. creative exercises, 3. a lot of practical work." (S:63)

"Provocation. Provocative questions, ideas." (S:15)

"Visiting different places. We travel regularly somewhere - to the places where potential work could be done, where our graduates work, or a person from the government delivered a lecture. It is very motivating to study if you see you can be there as well." (S:23)

Student's opinion raised an important issue regarding digital tools that academic staff might use to encourage students to engage in the study process and provide immediate feedback:

"Introducing an electronic system for students' questions — a lecturer is talking, and students' questions appear on the screen, and afterwards, the teacher answers the questions or students discuss them. I immediately see a lively discussion. Because often students forget that their words have power. Because always when imagining yourself saying something, you can start doubting. Somehow, students should feel free and encouraged to ask questions and discuss." (S:46)

Educators (n=38), for their part, consider group work and presentations to be effective and

modern teaching/learning methods in pedagogy process, which students perceive as the everyday working process. The academic staff is also aware of the rapid increase of digital skills; however, only some of the participants of the discussion used different digital tools for the interactive teaching/learning process in the real study process, using the computer more for preparing presentations. The effective teaching/learning methods mentioned in other research, e.g., blogging, podcasts, quizzes, tasks on solving interactive problems, etc. [3] have been touched upon very little. Although the research questions were not specifically directed towards digital methods, it is possible to conclude that diverse digital methods have been used relatively seldom in higher education institutions in Latvia.

The academic staff in focus group discussions emphasized the importance of mutual support, obtaining information about different teaching/learning methods from colleagues and improving their qualifications through different courses and professional development programmes offered by their university. A quote from the interview:

“The best way to learn something is to teach it to someone else. It helps to focus and learn what is most important.” (T:17)

Probably, the explicit necessity of receiving colleagues' support, and the lack of this support, is the factor that most hinders a more rapid development of digital skills, because the key factor that influences the use of innovative methods both in the digital environment and the traditional classroom is the colleagues' mutual support, sharing of experience and positive relationships [9]. Students, too, state that both digital and direct teaching/learning methods in many cases are uniform and not contemporary at all. For instance, a student recounted:

“Most boring lectures are if a lecturer is telling only a theory — with or without a Power Point presentation or if a lecturer is reading the theory, for example, from the book or from slides, and it happened really often.” (S:19)

Speaking about a modern and innovative approach to studies, the academic staff stressed creativity and diversity:

“Contemporary students are requesting more effort and creativity from a professor. The methods that motivate and engage should offer an opportunity to look from a different angle, show digital skills and guide them to pay attention to details they would not recognise.” (T:1)

After trying out the methods summarized in the project in their courses, the academic staff approved the possibility of using these methods. When discussing and analyzing different themes, they emphasized that it was very important to develop students' diverse competencies through these games and methods:

“The method allows students to release creative thinking, visualize ideas, develop them, as well as critically but supportively evaluate the accomplishments. Design thinking exercises allow students to be creative, think outside the box, get more qualitative and interesting results.” (T:50)

“They really liked it. I mean, the methods reach resources they are not even aware of possessing. Students start to believe they have knowledge on the subject and skills, their creativity is revealed. As for me, the methods allow me to gain insights into their attitudes, engagement, decide on materials they prefer during classes. I can understand students better and provide better education.” (T:38)

The aspect of skills and competencies is also essential to students' viewpoints. Nearly all students confirmed that all of Skills of 21st Century (developed by World Economic Forum, 2016 [17]) are developed directly or indirectly. Students admit that, for example, ICT literacy is developed depending on the study programme. More programmes should include skills which are essential for employment in 21st Century - critical thinking, problem solving, decision making, creativity and innovation; however, they mention that it has already been "programmed" in the study process itself. It can be assumed that these findings about the development of competence were similar to the conclusions drawn by Khairnar [3] about remote innovative study methods from the students' and academic staff's viewpoints.

Results, conclusions and recommendations

The results of the present study emphasise the existing dilemma between innovative and traditional teaching styles [4] and the fact that the traditional teaching model is still present in higher education, which is confirmed by other researchers [3]. The latest studies on learning methods emphasise that there is a need for reciprocal, symmetrical and fluent integration of innovative and traditional teaching practice, forming a more complex approach to teaching, and to relinquishing the dichotomy between traditional and innovative teaching practices [4, 18].

Having analysed the obtained data, the authors conclude that higher education students and academic staff interpret the concept of modern methods and their application and topicality in the study process differently.

The challenge for academic staff is to choose methods appropriate for students' varied prior learning experience, needs and interests. The academic staff interviewed pointed to insufficient information about the use and introduction of innovative methods, as well as the mutual exchange of thoughts and lack of sharing experience with colleagues about pedagogical topics. Students, for their part, emphasised in focus group discussions that the academic staff should think more about giving feedback and engaging more intensively with students; students also stressed the issues of attitude and assessment. Students mentioned the following as innovative methods: different kinds of games and the use of their elements, the use of different online tools, development-oriented and constructive feedback methods. Lecturers, for their part, consider group work and making presentations to be effective and modern learning methods. These conclusions are consistent with other studies where it was discovered that, from students' perspectives, positives were that students developed more critical thinking, problem-solving skills, digital and technological skills, while the perspective of the academic staff was that they better formulated their course objectives, provided more diverse feedback and that having face-to-face (in-class) meetings was more effective than the alternative [3].

Despite the increase in the numbers of students in university lecture rooms, educators are searching for alternative lecturing methods that involve students in the acquisition of the study content and improvement of their competencies. Academic staffs are encouraged to integrate methods in their lectures that include creativity, interactivity and technology and enable active student participation, engagement, interaction with the lecturer and study-mates and taking responsibility for their own studies. The concept of student

engagement "refers to the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or are being taught, which extends to the level of motivation they have to learn and progress in their education. [...] [The concept of "student engagement" is predicated on the belief that learning improves when students are inquisitive, interested, or inspired. Stronger student engagement or improved student engagement are common instructional objectives expressed by educators" [19].

Research have revealed the link between a university academic staff's core competencies and innovative teaching performance. Also, previous findings indicate that academic staff's education competency, social competency and technological competency are positively related to their innovative teaching performance [49 the use of innovative methods [9, 12]

The organisation's climate of innovation and attitude to innovative teaching [20] are also considered to be important factors for creating teachers' positive attitude to using different digital tools as well as the introduction of other technological innovations in the study process. Researchers in the United States emphasise five innovative and effective teaching methods that have proven their effectiveness in engineering sciences — flipped classrooms, gamification, design thinking/case studies, self-directed learning and social media study [11]

The student-centred approach and different innovative teaching/learning methods have rapidly become part of life in higher education institutions; therefore, it is necessary to analyse students' opinion about them. Researchers [21, 22] from different higher education institutions have studied students' feedback on courses that had introduced innovative methods. A study from 2018, which compares the experience students from technology programmes gained from traditional and innovative courses, shows that students enjoyed the flexibility of a more student-centred approach but struggled with understanding the assessment and time management within self-directed transdisciplinary coursework. Scaffolding students in these areas may help students make an easier transition to more student-centred learning [22].

The data obtained from the study show the existing gap between students' and teachers' views on modern teaching methods.

The data confirm the students' major need for interactive and modern teaching methods, while teachers' experiences of learning different methods are influenced by colleagues' support, knowledge-sharing possibilities, and an organisation's innovation climate.

Recommendations given by the authors of the study are concerned with intensive pedagogical improvement among the academic staff, the acquisition of different digital techniques and online tools and the development of platforms for teaching/learning methods in higher education institutions.

To solve the above-described challenges, the Career Development Centre, University of Latvia, in cooperation with foreign partners UC Leuven-Limburg (Belgium), Media & Learning Association (Belgium) and Humanitarian and Economic University in Lodz (Poland) has commenced the Erasmus+ project, "Entrance to future education" with the aim of summarising the teaching/learning methods in higher education that develop the 21st century skills and competencies required in the labour market and that allow students to feel involved and motivated in the teaching/learning process.

The project resulted in establishing an internet platform that offers the summarised methods and which is available to everyone. The project also carried out a study about academic staff and students' opinions on topical teaching/learning methods and developed the professional competence development program for university academic staff (16 hours), "Student-centred learning methods for improving 21st century skills".

Practical benefits of the study were realized also, in the form of a teacher further-education programme, "Modern innovative methods in the work of a university teacher". The results of this study will be used to improve the offer of the professional competence development program for the academic staff.

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