

## STRATEGY FOR USING INTERACTIVE TEACHING METHODS IN UNIVERSITY EDUCATION AND THEIR SUITABILITY/APPROPRIATENESS LEVEL FOR COURSES

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### ABSTRACT

The main purpose of writing this article is to examine modern innovations in higher education, which is the main part of the education system, to determine the rules for using them in lecture and seminar classes, and to determine the use of a more appropriate, appropriate interactive method for each lesson. For this, the comparative research method was used as a basis, the national and world higher education systems were examined, and their mutual, comparative study was carried out. As a result of this mutual-comparative study, many work forms and work methods were identified, the conditions for their use were clarified, and they were systematized for use in lecture and seminar classes. Of course, these work methods are quite extensive and numerous, writing about them requires a larger article, but we tried to mention the most widely used work methods in this article as much as possible. As a result, we can note that, indeed, the world education system is rapidly adapting to changes, requiring the application of each new work form and work method. From this perspective, every teacher working in the higher education system and institutions must approach their work responsibly, follow the innovations taking place in the global education system, and implement them.

**Keywords: higher education, work methods, work forms, lecture, seminar**

### Introduction

In the modern world, the organization of lectures and seminars in the higher education system has an important place in academic status, since the value given to higher education in the changing, developing modern world reality is extremely high, and systematicity in this field is one of the most demanded issues. This topic, namely the rules for organizing lectures and seminars in higher education, determining the compatibility of the forms and methods of work used in them, has an important place in the modern world. This importance in the academic field leads to this topic becoming even more relevant, one of the prominent issues in the world education system. The relevance of the topic leads to its research and more serious development. The increasing number of trainings and increasing demands in this field every day are an indication that this work is being widely studied all over the world, so the international trainings and courses we have joined once again prove that large-scale research is being conducted on the topic in the world higher education system. What we learn as a result of these trainings and courses causes us to keep up with these innovations, to be constantly in search of the current topic, and to expand the field of research. The motivation for us to take a more serious interest in the work is mainly the extremely interesting and attractive nature of the topic and the impact created by international trainings.

### Aim

The main goal of the research is to adapt the lectures and seminars at the higher education institution we work at to the modern world higher education system and keep up with them. Since it is not the responsibility of the teaching profession to be unaware of innovations in the developing world, or not to apply them, we, like every teacher, try to be aware of these changes and apply them to our lessons.

### Significance

The importance of the study is that higher education is one of the most important parts of the education system in general, and modernization and renewal in this area are one of the main issues. Being aware of the forms and methods of work applied by the modern education system in university education plays an important role. Considering this importance, significance, we also tried to conduct some research in this area and clarify the issues that are important to us.

### Theoretical Framework

In the modern era, the importance of education has become increasingly relevant and necessary. Therefore, one of the main issues teachers must consider today is the adaptation and integration of education with the demands of the modern age and technology. Since the expectations and demands of the new generation from education are largely aligned with an era of rapid technological and artificial intelligence advancements, educational methods worldwide have begun to evolve to meet the demands of the modern age. University education, a fundamental component of general education, has also focused on change and development in line with these new demands. Because the conventional, traditional education system and methods are no longer effective or acceptable in today's universities, the higher education strategy has been forced to adapt to the demands of the era. Therefore, we can see that Azerbaijani universities have also begun to change, adapt, and develop themselves in this direction. As university teachers, we are also part of this process of change and development, and we strive to follow the demands of the new era, thoroughly understand them, and then apply them in our education, structuring our lessons accordingly. Since university courses generally consist of lectures and seminars (student feedback), we have begun to structure the course format based on new teaching and learning methods. For this, it is essential to meticulously define Learning Outcomes. Just as every course generally has Learning Outcomes, the topics of the courses also have Learning Outcomes, and these outcomes are written in accordance with the Learning Domains. The actions of the outcomes are determined according to the Cognitive Domain, the Affective Domain, and the Psychomotor Domain so that they are measurable. Lectures generally begin with Icebreaker activities. Icebreaker activities are designed to be different from the daily course topics; the main intention is to draw students' attention to the new lesson and to eliminate tension both among themselves and with the teacher. These activities could be music, an aphorism, a painting, and students voice their own opinions about what is presented. Many examples of icebreakers can be given. Examples of icebreakers: If you could know the answer to a question for sure today, what question would you ask?, What is a small habit that has made a big difference in your life?, If you could go back to a moment in the past and tell yourself one sentence, what would you say?, Three words that best describe you?, etc. Ardından dersin esas konusu ve maksadı, ders sonunda elde edilecek olan öğrenim çıktıları söylenir. Bunun ardından dersin günlük konusu neyse ona uygun olarak motivasyon belirlenir. Motivasyon mutlaka konu ile alakalı olmalı, konunun içeriği ve kapsamı ile ilgili öğrencilere ipucu vermelidir. Öğrenciler motive edici kısmı bitirdikten sonra günlük ders konusuna daha iyi odaklanırlar ve daha iyi dinlemeye başlarlar. Bunun ardından ders giriş, esas ve sonluk olarak belirlenir.

Various teaching and learning methods can be used in the lecture process. Examples include Active Statistics, Brainstorming, Close/Assigned Reading, Discussion Prompts, Flipped/Inverted Classroom, Group Work, Learning Diary, Learning Stroll, Lecture/Teacher Presentation, Mind Mapping, Pro-Con Debate, Project-Based Tasks, Think-Pair-Share, Provocation, and others. These teaching and learning methods are determined according to the daily lesson, their duration in minutes and the time they can take are calculated, and then implemented. Generally, starting lessons with brainstorming can foster a positive learning process. Following this, Think-Pair-Share and Problem-Based Learning can be effective methods for problem-focused learning. At the end of the lecture, students can be asked to write a Learning Diary using reflective methods to assess whether they have achieved the intended outcomes and objectives. These are the general methods used for seminar courses; while we could expand on this list, the commonly used learning methods are: Discussion, Essay, Learning Diary, Multiple Choice Test, Oral Exam, Portfolio, Presentation, Project-Based Tasks, Term Paper, Thesis, and Written Exam. These methods are quite efficient and suitable for understanding and evaluating what students have gained and learned from the lesson taught by the teacher. As university teachers, we try to use these methods appropriately in our lectures, seminars, and group evaluations. They truly help students learn actively. In conclusion, we must say that university education should be considered an essential and necessary part of the education system, prepared for with care and seriousness, and implemented with the same meticulousness. This has become even more important in light of today's technology and the requirements of Artificial Intelligence. Therefore, both we and all university students must adapt to the demands of the age and ensure that our students learn more actively and science-oriented. To achieve this, we must follow the constantly evolving education systems worldwide, research the education systems applied in established universities globally, learn from them, and adapt them to our own system.

**Icebreakers** - In general, starting lessons with icebreakers always gives a successful result, because when lessons are prepared with these examples, it is more successful and effective to attract students' attention to the lesson. After that, it becomes easier to move on to the motivational phase of the lesson. Various icebreaker examples can be used, as it can be music, a painting, an aphorism. Students think based on these examples, express their thoughts about them in a sentence. Icebreakers are usually not related to the topic of the lesson, but motivational questions should be almost related to the topic. They simply determine the opinions of both students about each other and the teacher about the students, serve to get to know each other better and to relieve the tense relationship between them. "Icebreaking activities are essential tools in academic settings, designed to

foster engagement, alleviate anxiety, and promote social interaction among students”(Shavoun, Adeli, & Ahmari Tehran, n.d., 2024).

One of the icebreaker strategies is the **Snowball Toss**. For example, students are instructed to write on a piece of paper about an issue that worries them and roll it into a snowball and throw it at each other. After that, each student opens a sheet and reads, and this anonymous concern is discussed and resolved within the group.

It is very convenient to use the methods listed above in lecture lessons, and it is advisable to obtain useful results. Building lecture lessons more with the **Brainstorming** method gives effective results, since this method develops the critical, creative and logical thinking of students after the icebreaker and motivation stage. A student who is forced to think about a certain question is inevitably involved in the lesson process and becomes active. “In the information age, there is a need for individuals who know how to access new information, question it, examine, analyze, and transfer it, and who possess problemsolving abilities as well as creativity and productivity. It is crucial to restructure educational environments to align with 21st-century skills. Innovative teaching methods and ensuring active student participation are of great importance in enhancing the efficiency of learning processes”(Inciman Çelik & Akay, 2025).

In lectures consisting of an introduction, main part and conclusion, it is usually advisable to use the **Think-Pair-Share** method in the main part, since this method, which is carried out in pairs as a form of work, also leads to the elimination of distraction and fatigue in the middle of the lesson, like brainstorming. When using this method, the teacher voices a question in the middle of the lesson, students think in pairs, and then share their thoughts with each other. This leads to the creation of an exchange of ideas and cooperation. This working method is suitable for a pair work format. “Think-Pair-Share is a cooperative discussion strategy that was first developed by Professor Frank Lyman and his colleagues at the University of Maryland in 1981. It has been adopted by many writers in the field of cooperative learning since then. It gets its name from the three stages of student action, with an emphasis on what students are to be doing at each of those stages” (Marzano & Pickering, 2005). “Think. The teacher provokes students' thinking with a question, prompt, or observation. The students should take a few minutes just to THINK about the question; (2) Pair. Using a partner or a desk-mate, students PAIR up to talk about the answer each came up with. They compare their mental or written notes and identify the answers they think are best, most convincing, or most unique; (3) Share. After students talk in pairs for a few minutes, the teacher calls for pairs to SHARE their thinking with the rest of the class” (Robertson, 2006).

**Flipped Class/Learning** is also one of the interactive methods used for lecture classes. Thus, it is one of the most widely used methods in the world education system, in prestigious universities, and is met with interest by both teachers and students. In this interactive learning method, the teacher sends pre-recorded lesson videos to students before the lecture, students obtain information about the topic before the lecture and participate in the lecture with the teacher during the lesson. This can be used more in literature lessons. For example, even if the teacher does not have a recorded video lesson, ready-made video materials about poets and writers on YouTube channels can be used. As university teachers, we use this method very often and it really gives effective results. This method of work is carried out in a collective form of work. “The selection of learning materials is a fundamental challenge for teachers to ensure that the most suitable topics are presented to students. In the introductory phase of the Flipped classroom methodology this task becomes even more challenging as only the “essentials of the essentials” should be integrated into the videos. This requires a reconsideration of lessons from a new aspect: what parts of the learning content can my students assimilate without my personal presence, and for which elements do they need my assistance? On the other hand, the production of a video expands our possibilities: we can insert links, add extra scientific literature for those students who would like to deal with the subject in more detail. We can bring the subject closer to today’s students with visual and hypertext thinking if we use images and animations in our explanations” (Hartyányi et al., 2018).

One of the methods that is most appropriate to use in lecture classes is the **Problem Based Learning** method. The use of this method is more effective for long-term learning, that is, Problem-Based Learning is a learning method that requires a long time, but it is appropriate to raise any problem-issue related to the topic within the lecture and work with groups as a form of work. We can call this a mini-PBL as an example, because it is not possible to work on a long-term issue within the lecture, so it is more appropriate to apply it in this way. This form of work is more appropriate for the form of work with groups. “Problem based learning have been proved to be a success in the enhancement and development of critical thinking ability, leadership qualities, self-directed learning, professional and interpersonal skills, team working skills, management skills, collaborative learning, English speaking qualities, practicing empathy and many more” (Dolmans & Schmidt, 2000), (Engel, 1991).

**Traditional Presentation** this method is used more in traditional lectures, but this method can also be enriched with certain other interactive methods and create a strategic form. Thus, during the lecture, Brainstorming, P4C, Think-Pair-Share methods can be used within the presentation, that is, 4 methods can be used within one lesson.

**P4C** is one of the modern interactive teaching methods (**Philosophy for Children, Philosophy for Students**) and is actively used in lecture classes, that is, the teacher creates conditions for students to think philosophically, develop critical and creative thinking by asking certain questions in accordance with the daily topic of the lecture classes. They express their personal experience of a certain topic and idea, philosophical assessment from their worldview. This method of work is more suitable for the form of work with a team.

**Project Based Learning** is a modern pedagogical approach in which students learn knowledge and skills by working on projects that are applied in real life. Here, students do not just memorize information, they research, plan, create, present and draw conclusions. Students conduct research to solve a problem, collect information, work in teams, prepare a product (poster, presentation, prototype, video, article, etc.), and the teacher acts as a mentor who provides guidance. The main goals of this learning method are the development of critical thinking and problem-solving skills, strengthening teamwork, increasing creativity and self-confidence, result-oriented learning, interdisciplinary integration, etc. For this method of work, the form of work with groups is more appropriate.

Interactive learning methods, which will be discussed below, are used more for seminar classes.

**Socratic seminar** is a very profitable and effective method for seminar classes, as this method creates favorable opportunities for discussing the topic given in advance in seminar classes. We can use the Socratic seminar not only in seminar classes, but also in lecture classes. The daily topic can be divided into certain parts and students can read it for 10-15 minutes, and then discuss the topic read in the lesson. For seminar classes, a discussion of the reading of a previously assigned text can be organized. A more collective form of work is more appropriate for this method of work. "The Socratic Seminar, also known as Socratic Dialogue, is rooted in the conversations the Greek philosopher Socrates (470–399 BC) had with his pupils (Schneider, 2013). Socrates, known as an excellent teacher, established dynamic conversations with his learners, empowering them to construct their understanding of complex matters, and think critically about evidence (Chowning, 2009). The Socratic Seminar has no single definition (Acim, 2018). From a teaching perspective, Billings and Roberts (2006) explain that the Socratic Seminar is an instructional method that aims to improve understanding of ideas through engaged discussion. Soccio (2015) clarifies that the Socratic Seminar is a dialectical method of inquiry that uses questions to guide a discussion. It is expected that truth comes from learners' discussion (Spencer & Millson-Martula, 2009). Discovering the truth involves a systematic discussion on the nature of verifiable ideas (Spencer & Millson-Martula, 2009). Kessels (2009) adds that it is a collective deliberation of ideas aiming to achieve consensus on the answers to fundamental questions. Attempting to find agreement, instructors can infer that these definitions share two characteristics: first, truth is discovered through engaged and logical discussion; and second, truth comes from within the learner" (Castellanos-Reyes, 2020).

**Discussion** is also one of the effective and useful methods widely used in seminar classes, which is somewhat similar to the Socratic seminar. This method also gives useful results in discussing the topic. Students exchange ideas with each other around the topic, and obtain more interesting scientific, artistic and philosophical results. A more collective form of work is more appropriate for this method of work.

Essay can also be one of the main methods suitable for seminar classes, since students can be asked to write an essay on the assigned topic. This also creates conditions for them to determine and strengthen the correct writing rules, writing forms, and to master the ways of constructing sentences in written speech. Writing an essay also leads to the clarification of somewhat confused ideas by transferring them to writing, and the idea becoming completely transparent. The form of work with individuals is more appropriate for this method of work.

**Aquarium (Fishbowl discussion)** is one of the best interactive teaching methods used in seminar classes. Thus, a certain part of the group, let's say half, sits around the middle circle and begins to discuss the topic assigned to them. Those sitting in the outer circle listen to them carefully and take notes for themselves. Then the outer circle takes the place of the inner circle and begins to discuss what they heard, note their positive and negative sides, and make their own additions.

Of course, the suitability of these work methods and work forms for them can be greatly increased, because the methods used in lecture and seminar classes are quite wide and their number is quite large. It is impossible to provide information about all of them in one article, but we have tried to provide some information about them.

### Literature Review

Of course, while conducting this research, we also examined the world education system, although extensive research has been conducted in this field in our country. But we did not stop there and tried to obtain more detailed information to expand the scope of the research. The research we conducted in both the national education system and the secular education system, especially in the latter, shows that the topic has been extensively studied and that fairly significant research has been conducted in this field. We also obtain information from these studies in the appropriate manner. But regardless of the large-scale nature of the research, we also tried to clarify and clarify some issues for ourselves to some extent. As a result of the research conducted in this direction, what we already knew was further strengthened, and we also obtained new, important information.

### Methodology

- The comparative method was used as a research method. This research method allows both to examine the existing national literature, to study it extensively, and to study it in relation to the world education system.
- We participated in the research as two teachers. Both of us are university teachers and work at the Shamakhi branch of the Azerbaijan State University of Education. The purpose of conducting the research together is that we both work in the higher education system and the existing difficulties. We thought that this research would give positive results for both of us in our teaching activities.
- In order to make the research more comprehensive and successful, we tried to study both national and foreign literature written in this field. Of course, we also conducted a survey with colleagues working in the same institution as us, gave them some advice and tried to learn about their work experience. Other teachers also have successful moments in their work activities, and it was also useful for us to learn their main nuances. Before writing about the article, we wrote a certain project-based work with students on this topic. At that time, we learned the students' opinions, suggestions and wishes about the higher education system. In order to increase students' interest in studying, we organized a survey together with students and obtained very interesting results from them. They made very diverse suggestions about this, and we also use these innovations in our lecture-seminar lessons.
- We spent a certain amount of time on this research and worked together. As we mentioned above, we followed, researched, and studied the changes taking place in the world's education system, and tried to determine their relevance to lecture and seminar classes.

### Findings and Discussion

In fact, the research process is quite interesting and this has increased our work responsibility even more. Studying the world higher education system, studying the educational achievements of different countries, and adapting them to the national higher education system was a very interesting and attractive process. Of course, we were somewhat aware of these issues. Because the trainings we attended from time to time allowed us to obtain the necessary information in this area. However, it is also important to follow the changes taking place in the world every day and it is imperative to learn and apply them.

As a result of the research, we learned how many innovations and modern interactive teaching methods there are in the modern education system. Learning them thoroughly and applying them to lecture-seminar lessons is a very interesting process. Of course, although we experience some difficulties since we are graduates of traditional education, in fact, teaching lessons in this form leads to students' activity, increased attention, and a more interesting learning process. Therefore, we think that every teacher should learn these methods thoroughly and correctly determine their application.

As a result of the research, it became clear that some interactive work forms and methods are appropriate for both lecture classes and seminar classes. However, each has its own characteristics. For lecture classes, other work methods are used in the form mentioned above, and for seminar classes, other work methods are used. The specific work methods for the teaching and learning process should be clearly defined.

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