CONSTRUCTIVE TRAINING AND ITS ROLE IN THE STUDENT-CENTERED EDUCATION MODEL

Şahbazova Qahirə Lələ qızı
Azərbaycan Dövlət Pedaqoji UniversiteSİ
sahbazovaqahire@gmail.com
ORCID: 0000-0002-6482-6675

ABSTARCT

The article analyzes the essence of constructive learning, its functional role in the pedagogical process and its contributions to the student-centered education model in a scientific-theoretical context. The study examines the main principles of constructive learning, its impact on the formation of the student as an active subject in the learning process, and the possibilities of applying this approach in a modern educational environment.

Constructive learning, as one of the main pedagogical approaches at the heart of the modern student-centered education model, creates conditions for students to actively assimilate knowledge, apply it in new situations by connecting it with personal experience, and develop high-level thinking skills.

As a result of the application of constructive learning, the educational process becomes more democratic, flexible, individualized and effective. This approach also makes a significant contribution to the preparation of specialists with competitive and professional competencies in accordance with the requirements of modern society.

The article comprehensively examines the theoretical foundations of constructive learning, its functional role in the modern student-centered education model, and its possibilities of application in the pedagogical process. The essence of constructive learning is that knowledge is not presented to the student in a ready-made form; on the contrary, the student independently constructs and interprets that knowledge based on his/her previous experiences, cognitive activity and social interactions. This approach ensures the transition of learning from passive perception to active knowledge construction and strengthens the student's position as an active subject in the learning process.

The student-centered education model is characterized as an approach that takes into account the student's interests, learning style, current level of knowledge and individual development needs. Constructive learning, which is one of the main components of this model, increases the cognitive activity of students, strengthens their self-development, research skills and independent decision-making ability. Lessons based on a constructive approach create favorable conditions for students to learn in an environment of social cooperation, connect knowledge with real situations, and develop critical, analytical and creative thinking skills.

The article also pays special attention to the changing role of the teacher in the implementation of constructive learning. In this context, the teacher, moving away from the traditional function of knowledge transmitter, acts as a person who organizes, directs and facilitates the development of the student. This approach also affects the assessment process: the widespread use of alternative methods such as formative assessment, portfolio method, self-assessment, and peer assessment improves the quality of the teaching process and ensures the transparency of learning.

Keywords: Constructive learning, Student-centered education, Active learning, Independent learning, Facilitator role in training, Project-based learning, Alternative assessment, Experience-based learning.

Introduction

Global changes observed in the education system in the 21st century have created a need for skill-oriented, personality-oriented and activity-based learning models rather than knowledge. In this context, constructive learning stands out as one of the main directions of modern pedagogy. The constructive approach transforms the student from a passive listener into an active learning subject, creating favorable conditions for him to interpret knowledge, apply it in new situations and connect it with personal experience. The student-centered education model is built on the principles of activity, independence and personal development, ensuring the active participation of the learner in the learning process.

Constructive learning (constructivist learning) involves the process of creating knowledge based on the student's existing cognitive structures, thought processes, and personal experience. This approach is characterized as not simply transferring knowledge, but rather building a knowledge system that is formed as a result of the student's cognitive activity and expands in a logical sequence. Constructive learning is a learning model based on creative and practical-cognitive activity; where knowledge is not presented in a ready-made form by the teacher, but is reconstructed, deepened, and given meaning as a result of the student's active intellectual activity.

In this model, learners establish connections between existing knowledge and new knowledge based on their internal cognitive levels, personal experiences, and sensorimotor structures, and as a result, creative thinking is formed. The

creative cognitive process occurs both individually and in a collaborative (group and team activity) environment. This allows the knowledge construction process to be organized at different levels, depending on the nature of the student's activity. Bruner's constructivist philosophy forms the basis of his educational theories, based on the idea that knowledge is actively constructed through experience and conscious cognitive activity.

Bruner explains learning as an active process in which the student creates knowledge, moving away from passive perception. In his opinion, learning occurs as a result of connecting new information with existing knowledge structures and personal experience. According to Bruner's concept, when a learner acquires new knowledge, he reconciles it with previous knowledge, individual cognitive structures, and the cultural-historical experience of society, and integrates it into the existing framework of meaning. The learning process is formed on the basis of the alignment of knowledge acquired as a result of personal cognition with socio-historical experience, which reveals both the individual and social nature of knowledge construction.

Fatma Bunyatova's constructive teaching philosophy is aimed at ensuring that pupils and students independently progress in education with the help of mental operations, build on their previous knowledge and experience, create "their own knowledge" and individual understandings, and also connect the new knowledge they have acquired with existing knowledge structures within a whole system. Thus, constructive teaching is characterized as a dynamic process based on creative and cognitive operations. Pupils or students perform logical operations on the information they receive from the teacher and textbooks, build their own ideas based on their internal imagination and understandings, and form their knowledge. This creative process can be carried out both individually and in the form of cooperation in interactive environments (discussion, dialogue, group and team activities, debate, etc.). Fatma Bunyatova's constructive teaching philosophy also reflects the synthesis of Eastern and Western pedagogical systems. This synthesis is based on cognitive mobility, understanding from part to whole, and organized cognitive movement from whole to part. That is, the pupil or student creates a knowledge system that is formed in a consistent and logical manner by connecting previous knowledge with new knowledge. Such an approach ensures the continuous, gradual and logical development of the pupil or student's cognitive activity.

In the constructive model, which is closely related to thinking operations, the student interacts with the knowledge presented to him, compares it with existing cognitive structures, and ultimately forms the logical foundations of his own knowledge system. A student with developed logical thinking skills is able to draw correct conclusions, determine cause-and-effect relationships, move from one conclusion to another, and acquire sequential thinking skills.

The essence of constructive learning is that the student is not a passive recipient of information in the perception of knowledge, but, on the contrary, acts as an active participant in the learning process. This learning model directs the student to self-improvement and creates favorable conditions for the continuous development of his cognitive activity. According to the constructive approach, the assimilation of knowledge does not result from the reception of ready-made information, but from the establishment of connections between existing experience and new information. This is the process of internalizing, restructuring and raising knowledge to a higher level of cognition.

Constructive learning involves the integration of knowledge acquired in the educational environment and social experience. The student draws new conclusions by linking both the knowledge presented by the teacher and the phenomena observed in everyday life with existing cognitive structures, substantiates them and reorganizes them in his cognitive system. This process leads to the logical expansion and deepening of knowledge and the formation of more complex cognitive structures.

Such a learning model develops the student's meta-thinking skills - that is, the ability to understand, evaluate and manage their own thought processes. The student not only acquires knowledge, but also understands the logical operations and thinking strategies through which this knowledge was achieved. This allows for more efficient, purposeful and systematic planning of future learning activities.

The scientific and philosophical foundations of constructivist learning were formulated by leading psychologists and educators of the 20th century. Each of them, having studied various aspects of constructivist cognition, scientifically substantiated the importance of this approach in modern learning models.

American psychologist and learning theorist Jerome Bruner is considered one of the main intellectual architects of constructivist learning. According to him: knowledge should not be presented to the learner in a ready-made form, the student should discover this knowledge, the learning process should be based on the principle of "learning by discovery".

Bruner describes learning in three main forms of presentation:

1. **Active stage – knowledge is acquired through action and movement.**
2. **Iconic stage – the meaning of knowledge is expressed through images and visual representations.**
3. **Symbolic stage – knowledge is expressed through language, symbols, and logical structures.**

This model provides for the gradual and effective acquisition of knowledge in the constructivist learning process. Bruner also emphasizes that learning depends on the cultural context: when the learner acquires new knowledge, he or she reconciles it with the socio-cultural experience of society.
The psychological foundations of constructivism are closely linked to the theory of cognitive development of Swiss scientist Jean Piaget. According to Piaget: the learner actively constructs knowledge, and cognitive development occurs through the interaction of the processes of "assimilation" and "accommodation."

Assimilation is the process of adapting new information to existing cognitive structures. **Accommodation** is the process of adapting and modifying existing cognitive structures to new information. Bruner and Piaget's concepts justify the active, gradual, cultural and cognitively contextual nature of constructivist learning.
Constructive learning, in accordance with the basic principles of Piaget and other cognitive theories, creates conditions for two processes to occur harmoniously: the learner connects existing knowledge with new information, expands and deepens the cognitive structure. Piaget connects cognitive development with age periods and emphasizes that:

- At each age stage, learning should be organized in accordance with individual cognitive capabilities,
- Meaningful learning is impossible without the student's active thinking activity.

Russian psychologist Lev Vygotsky developed the social aspect of constructivism. His theory of the “zone of proximal development” (ZPD) is fundamental to the modern application of constructivist learning. According to Vygotsky, learning occurs through social interaction, with the teacher or more experienced learners providing cognitive support to the learner or student, which bridges the gap between the learner’s or student’s actual abilities and potential capabilities. This approach explains the central role of cooperative learning, group work, and learning dialogue in the constructivist model.

The reforms implemented in the Azerbaijani educational space in recent years have created a favorable pedagogical environment for the application of constructivist learning. This process has been accelerated, in particular, by the introduction of the following factors:

- new educational standards,
- competency-based curricula,
- European Credit Transfer System (ECTS),
- active learning methods.

In the modern era, the role of constructivist learning has increased even more. The social, economic and technological challenges of the 21st century require the training of individuals with creative, critical and analytical thinking skills. In a globalizing world, generating new ideas and innovative solutions, adapting existing knowledge to new contexts and having creative application skills are considered key competencies.
Constructive learning fully meets these requirements. Within the framework of this model, the student:

- consciously develops his knowledge;
- forms research and analysis skills;
- develops problem-solving skills;
- uses existing knowledge creatively to create new ideas;
- takes into account both personal and social experience in the process of knowledge construction.

Thus, constructive learning activates individual and social cognitive mechanisms in each student, forming him as a creative, thinking and responsible personality in the learning process. The constructive approach builds learning not only as a process of acquiring knowledge, but also as a process of creating knowledge, forming new meanings and applying knowledge in real situations. Knowledge is not transferred to the student in a ready-made form; on the contrary, the learner forms, deepens and assimilates knowledge through his personal experience, thinking and cognitive activity.

The main principles of constructive learning are as follows:

1. Active learning – the student is actively involved in the learning process; he/she explores, compares, discusses and draws conclusions.

2. Building on prior knowledge – new knowledge is linked to the student's existing experience and ensures continuity of learning.
3. Social interaction – group work, discussions and projects enhance knowledge construction.
4. Reflection – the student reflects on what he/she has learned, determines his/her path of personal development and plans his/her future activities.
5. Problem solving and research orientation – the practical application of knowledge is based on real-life situations and allows the student to develop research skills.

In modern times, many of these principles of constructive learning are more widely applied in seminars and practical classes in higher education institutions.

In the modern era, the global flow of information, rapid technological development and changing demands of the labor market require individuals to have creative thinking, analytical skills, problem-solving abilities and high adaptability. For this reason, the constructivist learning model constitutes the main philosophy of student-centered education. In this model, the role of the teacher changes: he is no longer just a transmitter of knowledge, but acts as a facilitator, guide and motivator of the learning process.

A student-centered education system gives students independence and responsibility in the learning process. The quality of learning outcomes is directly based on the responsibility of the student. This independence implies that students have the skills to prepare teaching materials and manage the learning process. As a result, students become more independent and easily adapt to their future professional activities.

At the same time, a student-centered education system allows students to learn and develop skills such as teamwork, written and oral communication, prioritizing tasks and critical analysis more effectively. The student-centered education model is a pedagogical philosophy that takes into account the interests, experiences, learning styles, and individual characteristics of the student. The main goal of this model is to educate the student as an independent thinker, entrepreneur, creator, and an individual who can manage his or her own learning process.

Constructive learning directly corresponds to the essence of student-centered education and makes it more functional. This approach develops the following skills in students:

- independent thinking skills,
- creative approach skills,
- analytical and critical thinking,
- self-management skills,
- communication and collaboration culture.

As a result of the application of constructive learning in student-centered education, learners:

- become "authors" of their own knowledge,
- take personal responsibility for learning,
- develop argumentation and discussion skills,
- acquire skills that can be used in life and professional activities.

Thus, constructivist learning plays an important role in the implementation of the student-centered education concept, and as a result: the student's motivation to learn increases, knowledge is absorbed more deeply and long-term, the student acquires critical and analytical thinking skills, social skills such as teamwork, communication and cooperation develop, and the student becomes a creative builder of his own knowledge.

This approach develops not only academic skills in students, but also 21st century competencies - problem solving, creativity, digital literacy and independent learning skills.

Student-centered education and teaching play an important role in increasing students' motivation, self-analysis and participation in the learning process. Therefore, the design of educational programs, the choice of teaching methods and the assessment of results should be carefully considered.

The implementation of student-centered education and teaching encompasses the following principles:

- respecting the diversity of students and meeting their individual needs by using new, variable teaching methods in education;
- considering and implementing different ways of teaching where appropriate;
- using different pedagogical methods effectively and purposefully;
- constantly evaluating and adapting teaching forms and pedagogical methods;
- stimulating a sense of independence in students, provided that they receive appropriate guidance and support from the teacher;
- promoting the establishment of mutually respectful relationships between students and teachers;

• ensuring the establishment of appropriate procedures for addressing student complaints.

The implementation of constructivist learning in modern higher education institutions creates broad methodological opportunities and makes a significant contribution to improving the quality of the educational process. Interactive teaching methods – strategies such as project-based learning, research-oriented assignments, debates, group presentations, case studies and portfolio assessment – intensify the process of students' knowledge construction. These methods ensure that students do not passively learn the subject, but also actively analyze, correlate, and apply knowledge, which creates conditions for the formation of their higher-level thinking skills.

Directions for developing a student-centered education system in higher education institutions:

• First of all, systematic training related to "Student-Centered Learning" should be increased for all academic staff;

• Increasing support for higher education institutions in promoting pedagogical innovations in student-centered learning contexts and fully utilizing the potential benefits of digital technologies for teaching and learning;

• Student knowledge should be assessed on the basis of portfolios, projects, problem analysis, article analysis, team research, team projects, discussions and debates, field trips and other practical activities;

• A strong connection between teaching, practice and research should be created at all levels of education and incentives should be created for universities, teachers and students to strengthen activities that help develop creativity, innovation and entrepreneurship;

The benefits of a student-centered education system are many, and they are as follows:

For students:

• Opportunity for independent learning;
• Development of self-management and decision-making skills;
• Having clear learning goals;
• Developing learning strategies;
• Understanding rights and responsibilities;
• Developing innovative and creative thinking skills;
• Developing independent thinking skills by analyzing and synthesizing topics.

For professors/faculty:

• Moving from an active teaching process to an active guiding process;
• Sharing responsibility with students;
• Promoting active and collaborative learning;
• Applying creative assessment methods;
• Focusing on deep learning, problem solving, creativity, and entrepreneurship;
• Developing students' self-observation, self-assessment, and self-development skills;

For higher education institutions:

• Improving educational resources and support services for teachers and students;
• Developing curricula;
• Creating a network of cooperation between students, universities, the business world and other stakeholders;
• Developing flexible learning paths;
• Developing student projects and research;
• Establishing clear procedures to ensure student satisfaction;
• Establishing internal structures for quality assurance;
• Strengthening academic integrity and commitment to ethical behavior in the educational process;

For an inclusive and digital transformation of the learning environment:

• Widespread use of electronic learning resources, LMS (Learning Management System) platforms.
• Development of hybrid and online teaching models.
• Improving accessible teaching materials for inclusive education and the environment for students with special needs.

To strengthen quality assurance mechanisms:

• Taking student feedback into account in the teaching process.
• Participation of student representatives in internal quality assurance systems.
• Increasing compliance with international accreditation and rating standards.

Constructive learning and student-centered teaching fully meet these requirements. Within this model, the formation of the student as an active learning subject at the center of the educational process, the assimilation of knowledge based on the previous experience of the individual, and the organization of the learning environment in an interactive, flexible and collaborative manner are the main priorities.

Portfolio assessment allows you to monitor the student's personal development by evaluating his best works and development path. It is not based only on test and exam results, but involves assessing the body of work created by the student over a certain period of time. The main purpose of portfolio assessment is to monitor the student's development over time, identify strengths and weaknesses, reveal creative and critical thinking skills, create an opportunity for the student to self-assess and ensure that the teacher gives a more objective assessment. This approach increases students' interest in the lesson. The advantages of portfolio assessment are also significant: skills that are not included in the exam are taken into account, each student can show their development at their own pace, fair assessment is carried out based on real results, and the student becomes more responsible and creative.

The student-centered education model assumes that the main focus in the learning process is shifted from the teacher to the student; in this approach, the student's needs, interests, learning style and individual characteristics play a leading role in determining the content and methods of teaching. Student-centered education is a pedagogical approach that encourages students to engage in research activities, ask questions, participate in projects and independently acquire knowledge. It takes into account the learning style, skills and interests of each student and creates conditions for individualization of the educational process. The constructive approach supports the selection of flexible, adaptive and interactive teaching methods, taking into account the differences between students. In this framework, the student is not just a passive recipient of knowledge, but an active participant in his own learning process, making decisions and evaluating the results. He does not absorb information as it is; on the contrary, he forms his own assessment criteria, draws conclusions and seeks alternative solutions.

This process accelerates the development of analytical thinking, problem-solving skills, creative approach and critical thinking. In a constructive learning environment, teamwork, effective communication, social interaction and cooperation skills are formed more intensively. The meaningful, practical and life-related nature of the learning process increases the student's internal motivation and creates conditions for the development of continuous learning habits. The teacher is not a transmitter of knowledge; he acts as a facilitator who organizes the learning process, guides the student and shapes the learning environment. The constructive learning approach ensures the development of both life and professional skills of students through projects, problem-solving activities, research tasks and training based on real situations. The role of the teacher here changes dramatically: he is not a transmitter of knowledge, but an organizer, facilitator and guide of the learning process. This change has a positive impact on the quality of teaching and students' self-awareness.

All of the above factors form the conceptual basis of the student-centered educational process. A student-centered approach places the student's individual characteristics, learning style, and developmental needs at the center of educational activities and creates conditions for the continuous and purposeful development of his knowledge, skills, and competencies.

This approach is especially relevant in the context of the rapidly changing socio-economic and technological requirements of the modern era. Thus, student-centered and constructive teaching methods stimulate the formation and strengthening of 21st century skills such as analytical thinking, problem solving, collaboration, information literacy, and creative activity. As a result, the student becomes an active participant in the educational process and is able to consistently ensure his intellectual, social, and professional development.

Purpose

The main purpose of this text is to justify the importance of implementing a constructive learning and student-centered teaching model in higher education institutions, and to show the advantages that this model creates for both the faculty and the universities at the institutional level. The goal is to support pedagogical approaches that serve to improve the quality of the higher education system by scientifically and practically substantiating the formation of a learning environment that places the student at the center of the educational process, ensures his active role in the construction of knowledge, and is based on modern pedagogical innovations.

Importance

The application of the constructive learning and student-centered teaching model is of great importance in the higher education system at both the pedagogical and institutional levels. This approach directs the process of students' knowledge acquisition to active, reflective and creative activities, ensuring the development of their analytical thinking, problem-solving, research and collaboration skills. The model adapts the function of the teacher to modern educational requirements, strengthens his role as a facilitator and mentor, and creates an opportunity to form an interactive and dynamic learning environment.

From an institutional point of view, this approach increases the quality of education in higher education institutions, accelerates adaptation to international standards, and expands the application of digital and innovative teaching methods. At the same time, the application of student-centered solutions increases the competitiveness of universities, strengthens ties with the labor market, and creates conditions for a higher level of professional training of graduates. The constructive learning and student-centered teaching model is of strategic importance in the modernization of higher education, increasing its quality, and training specialists who meet the requirements of modern society.

Theoretical Basis

The constructivist learning and student-centered teaching model is based on the scientific principles of modern pedagogical theories—in particular, constructivism, the humanistic educational approach, and socio-psychological learning concepts. According to constructivism, knowledge is not transmitted in a ready-made form, but is a dynamic process that the student “constructs” on the basis of his/her existing experiences, prior knowledge, and interactive activities. This theoretical approach considers the student as an active subject at the center of teaching and explains learning in terms of psychological processes such as meaning-making, discovery, and reflection.

The humanistic educational approach emphasizes the student’s individual development, self-realization, intrinsic motivation, and personal potential, and requires the learning environment to be built on cooperation, support, and understanding. These principles form the essence of student-centered teaching and consider the harmonious development of emotional, social, and cognitive factors in the learning process to be important.

The socio-constructivist approach emphasizes that knowledge is formed as a result of social interaction, discussion, collaboration, and joint activity. In this context, the teacher, playing the role of a facilitator, ensures the active integration of the student into the learning environment, creates conditions for the application of research-oriented and interactive teaching strategies. The theoretical basis of constructive learning and student-centered teaching is based on basic scientific principles such as active assimilation of knowledge by the student, the formation of learning by social and psychological factors, and the dynamism of the learning process. This theoretical framework creates a solid scientific basis for the application of updated teaching models in modern higher education.

Literature Review

Constructive learning and student-centered teaching model is one of the widely studied directions in modern pedagogy and educational science. Literature shows that the scientific foundations of this approach began to be formed in the late 19th and early 20th centuries with J. Piaget's theory of cognitive development and L. Vygotsky's concept of socio-cultural learning. Piaget's constructive cognitive model emphasizes that knowledge is actively constructed by the student or learner, while Vygotsky's theory emphasizes that social interaction and the zone of proximal development play a decisive role in learning.

Representatives of humanistic pedagogy — J. Rogers and A. Maslow — especially emphasize the importance of the individual's internal motivation and need for self-actualization in the creation of a student-centered learning environment. Their research shows that a teaching model that values the student, chooses him, and involves him in the decision-making process creates higher academic achievement and socio-emotional development.

In modern times, numerous empirical studies have been conducted on the application of constructivist learning and student-centered approaches. B. Bruner's theory of inquiry-oriented learning shows the importance of teaching methods that support the development of students' research, problem-solving and experience-based skills. The “Constructive Alignment” model proposed by J. Biggs and C. Tang is based on the principle of systematically aligning learning objectives, teaching activities and assessment methods.

Recent studies have shown that the student-centered education model has a positive effect not only on the development of knowledge and skills, but also on students' attitudes towards learning, motivation and self-regulation skills (Weimer, 2013; Lea, Stephenson & Troy, 2003). With the widespread use of digital technologies, the integration of interactive learning environments and electronic resources into student-centered teaching has become particularly relevant. In this direction, researchers such as R. Mayer, D. Jonassen and M. Moore have extensively studied the relationship

between the student-centered approach and multimedia learning theory, distance learning and interactive learning models.

A general analysis of the literature shows that constructive learning and student-centered teaching create an effective scientific and methodological basis for improving the quality of teaching in higher education, increasing student activity and forming modern skills. The results of various pedagogical theories and empirical studies confirm the effectiveness of applying this model in teaching and contribute to the development of innovative approaches in the higher education environment.

Methodology

This article uses theoretical and analytical methods to investigate the application and impact of the constructivist learning and student-centered teaching model. Within the framework of the theoretical method, the existing pedagogical literature, research studies, international practices and conceptual approaches were analyzed. Through the analytical method, the principles, advantages and implementation mechanisms of constructivist and student-centered teaching models in different education systems were comparatively evaluated.

In addition, the results of empirical experiments were taken into account, and indicators such as student activity, knowledge construction and the development of analytical skills were examined. The article also evaluates the integration of digital technologies and interactive learning methods into student-centered teaching in a modern higher education environment from a methodological point of view. The methodology is based on both theoretical analysis, comparative research, and practical observation and experiments, which allows us to show in detail and systematically the possibilities of applying constructivist learning and student-centered teaching.

Conclusion

The theory of constructivist learning, in addition to constituting the scientific basis of student-centered educational strategies, serves to strengthen the student's personal development, creative thinking and analytical approach. The widespread application of this approach in the education system creates conditions for students to actively perceive and acquire skills that can be used in real life, rather than passively assimilate knowledge. Thus, constructivist learning plays an important role in the development of student-centered education as one of the main directions of the modern education model.

Constructivist learning, by ensuring the active participation of students in the learning process, allows them to form the competencies required in their future professional activities - analytical thinking, problem solving, cooperation, communication and creativity. This approach is an effective pedagogical mechanism that ensures not only the assimilation of knowledge, but also the cultivation of thinking, research, creative and socially active personalities.

The results of the study show that constructivist learning increases students' motivation, makes the learning process meaningful, ensures more sustainable assimilation of knowledge and turns them into practical skills. Constructive methods such as problem-based learning, project-based learning, research assignments, and reflective activities ensure that students actively participate in learning, discover their potential, and apply knowledge to their lives. As a result, the methods and strategies applied in the student-centered education process significantly strengthen students' independent learning abilities, develop their critical thinking, problem-solving, and self-regulation skills, and thus create favorable conditions for providing professional training in line with the dynamic challenges of the labor market.

References

F. Aliyeva “Student-centered education and the application of constructive learning in higher education”. Journal of Education and Innovation, 3(12), pp. 45–57. 2021.

Bunyatova, F. Philosophy of constructive learning and pedagogical applications. Baku, 2015.

Mehrabov A.O. “Conceptual problems of modern education”. Baku, Translation,

Bruner, J. The Process of Education. Harvard University Press, 1960.

Piaget, J. The Psychology of Intelligence. Routledge, 1972.

Vygotsky, L. Mind in Society: The Development of Higher Psychological Processes. Harvard University Press, 1978.

