DOI: https://doi.org/10.37547/mesmj-V7-I9-44 Pages: 461-477

MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL

http://mentaljournal-jspu.uz/index.php/mesmj/index



THE ESSENCE AND KEY CRITERIA OF FUTURE-ORIENTED HIGHER EDUCATION

B.M. Ochilova
Doctor of Philosophy (PhD), Professor
Tashkent, Uzbekistan

ABOUT ARTICLE

Key words: future-oriented higher education, alternative futures, institutional decision-making, evidential justification, value-based choice, student agency, social accountability, evaluation criteria.

Received: 11.11.26
Accepted: 12.11.26
Published: 13.11.26

Abstract: This article clarifies the concept of future-oriented higher education and proposes criteria for evaluating university decisions. The study combines conceptual analysis, comparative theoretical analysis, and normative analysis with a review of relevant documents and a comparison of findings from published empirical studies. It identifies three defining features of future-oriented decision-making: examining decisions under alternative future conditions, assessing their long-term consequences, and revising them in light of new evidence. The article proposes an evaluative framework with five criteria: the evidential basis of knowledge, preparedness for alternative futures, justification of choices in terms of values, agency and social accountability, and institutional continuity and review. Each criterion is accompanied by an evaluative question and an example of an observable indicator. The article's contribution lies in linking the evidence and values that justify a university decision to its long-term social consequences and the conditions under which it should be reconsidered. The proposed criteria require empirical testing in specific university settings.

Introduction. The future-oriented nature of higher education is associated with how a university generates knowledge, which human capacities it develops, and how it takes responsibility for the social consequences of its decisions. Technological advancement,

changing professional requirements, and the expansion of forms of cooperation necessitate a reconsideration of these tasks. However, the mere presence of innovation does not automatically confirm its scientific validity, value-based acceptability, or usefulness to society. Therefore, it is necessary to identify the theoretical and institutional conditions for integrating knowledge, values, and social responsibility within specific educational decisions.

In Uzbekistan's higher education system, students' participation in scientific research and practical projects contributes to ensuring the integration of education and research. In his speech dedicated to Teachers' and Mentors' Day, Sh. M. Mirziyoyev emphasized the need to strengthen the scientific activities of universities and involve young people in research and major projects: “Our universities and institutes must also be actively engaged in science and involve young people in scientific research and major projects” [1]. This article examines the aspects of this task related to university–community collaboration. What knowledge and skills does a student acquire through a collaborative project? Which needs of the partner does the project outcome address? What responsibility does the university assume for the long-term consequences of the results? These questions define the central research problem of the article. The aim of the article is to develop criteria for evaluating decisions related to university–community collaboration based on the reliability of knowledge, consideration of stakeholders' interests, distribution of responsibility, and the possibility of reconsidering decisions.

The central contradiction of the study arises from the fact that the reliability of knowledge, the realization of values, and social responsibility are simultaneously required in university activities, whereas their outcomes are often assessed through separate indicators or indicators that substitute for one another.

The first aspect of the problem concerns the reliability of knowledge and the assessment of individual learning. Digital information and generative artificial intelligence expand the possibilities of producing texts and other outputs. However, the fluency of a finished product does not fully demonstrate whether a student understands its content, verifies its evidence, or can apply the acquired knowledge in a new situation. UNESCO's guidance on generative artificial intelligence emphasizes the need to organize the use of these technologies on the basis of a human-centred approach [2]. In this article, this requirement serves as a basis for distinguishing between the use of a technological tool and the outcomes of individual learning.

The second aspect relates to the practical realization of values in educational activities. Recognition of human dignity, justice, academic freedom, and integrity does not necessarily mean that these values are consistently ensured in every situation. Opportunities to access resources, understand assessment criteria, raise evidence-based objections, and participate in

the reconsideration of decisions require separate examination. The practical significance of a value is manifested in how it regulates objectives, assessment, and interpersonal relationships.

The third aspect concerns the university's responsibility to serve the public interest. Collaboration may provide students with academic experience without necessarily producing an outcome that meets the needs of the community. Conversely, even when a partner receives a useful outcome, the possibility remains that the individual learning of some students may not be adequately demonstrated. Therefore, academic outcomes, benefits to partners, and the normative acceptability of participation must be examined through separate forms of evidence.

Literature Review and Theoretical Framework. In analysing the social functions of higher education, human capital theory, the capability approach, and the concept of multiple educational purposes address different research questions. Becker analyses education and professional training as investments in knowledge and skills [3]. This approach makes it possible to explain the professional and economic outcomes of higher education. Nussbaum [4], in turn, focuses on the actual opportunities individuals possess to choose and pursue activities they have reason to value. This approach makes it possible to distinguish between a student's involvement in a project and their actual opportunity to formulate a problem, express an independent opinion, and influence decision-making. Biesta [5] distinguishes between the functions of education related to qualification, socialization, and subjectification. This distinction provides a basis for analysing separately the contributions of collaborative projects to professional training, collective activity, and independent judgement.

The distinction between participation in a project and learning through experience is clarified by Ash and Clayton's DEAL model of critical reflection [6]. The model involves describing an experience in detail, analysing it in relation to specified learning objectives, articulating the knowledge acquired, and setting goals for subsequent activities. In this article, the model serves to clarify the individual learning outcomes of students. The benefits generated for partners, however, require separate assessment. For example, a student may acquire the ability to analyse a local problem, while the practical value of the project's proposed solution depends on how effectively it addresses the partner's needs and whether it can actually be implemented.

The National Co-ordinating Centre for Public Engagement (NCCPE) framework for high-quality public engagement also helps to examine the objectives, participants, processes, and evaluation of collaboration as interconnected elements [7]. The OECD's guidance on evaluation provides a basis for applying assessment criteria in accordance with the objectives and context of evaluation [8]. In research-based projects, the principles of reliability, honesty, respect, and

accountability outlined in the ALLEA European Code of Conduct for Research Integrity [9] can be applied to the assessment of decisions concerning the collection, interpretation, and presentation of evidence. On this basis, the article distinguishes three dimensions of collaboration: student learning outcomes, benefits generated for partners, and the university's responsibility for decisions and their consequences.

Among local studies, Sultanov's research [10] on the development of social responsibility among university students is closely related to the subject under consideration. It examines the relationship between knowledge, morality, and responsibility within the broader context of developing students' social responsibility. The present article, however, focuses on the institutional decisions made by universities. How do the university and its partner define a problem? What evidence informs the decision? Who evaluates the outcome? Who has the authority to reconsider the decision when circumstances change? This difference in the level of analysis clarifies both the relevance of the local study and the specific contribution of the present article.

The original contribution of this article lies in integrating the initial grounds for decision-making with the conditions for its subsequent reconsideration within a single analytical framework when evaluating university–community collaboration. The initial grounds of a decision are assessed through the reliability of the knowledge on which it is based, the consideration of stakeholders' needs, and the distribution of responsibility. The future-oriented nature of a decision, in turn, is determined by anticipating circumstances in which partners' needs or available resources may change, discussing long-term consequences, and establishing who has the authority and what procedures should be followed to reconsider the decision when new evidence emerges.

Research Methodology and Sources. The study is theoretical and analytical in nature. The unit of analysis is an institutional decision related to university–community collaboration. Such a decision may concern the definition of a collaborative problem and its objectives, the selection of a solution, the distribution of responsibilities, the evaluation of outcomes, or the reconsideration of an activity.

Conceptual analysis is used to clarify the distinctions between information and substantiated knowledge; the completed output of a project and the individual learning outcomes of a student; formal rights to participate and actual opportunities to influence decision-making; and taking initiative and assuming responsibility for outcomes. In the comparative theoretical analysis, approaches are examined in terms of their objectives, levels of analysis, criteria for evaluating outcomes, and scope of application. Normative analysis

evaluates the validity of decisions based on the verification of evidence, stakeholder participation, the alignment of obligations with authority, and accountability for consequences.

The sources include scholarly works, published empirical studies, international recommendations, dissertation abstracts, regulatory documents, official statistics, and publicly available institutional materials. Sources are selected according to their relevance to the research question, the reliability and traceability of their origins, and the possibility of verifying the conclusions drawn from them. Scholarly works are used to substantiate concepts and theoretical approaches; international recommendations help clarify the criteria for collaboration and evaluation; and national documents and institutional materials are employed to analyse their application in the context of Uzbekistan. Published empirical findings are compared with due consideration of the research settings, participants, and methods used to measure outcomes.

The analysis of documents focuses on the evidence underlying a decision, the interests of the parties taken into account, the distribution of responsibilities and accountability, and the conditions established for reconsidering the decision. These criteria make it possible to examine separately the evidence that serves as a basis for assessing students' learning outcomes and the benefits generated for partners.

Main Analysis and Discussion. The future represents a domain of epistemological challenges, value-based choices, and practical responsibility for higher education. As an epistemological challenge, it requires the examination of the validity of assumptions concerning situations that have not yet occurred. As a matter of value-based choice, it involves discussing which changes are acceptable for individuals and society. Practical responsibility, in turn, entails taking into account the long-term consequences of present-day decisions. Therefore, defining the future-oriented nature of higher education solely in terms of introducing new technologies or rapidly adapting to existing professional requirements is insufficient.

The purpose of this section is to clarify future-oriented higher education as a concept associated with general quality requirements while possessing its own distinctive temporal and decision-making criteria. The central question is: what knowledge and capabilities should a university develop for circumstances that have not yet fully taken shape, on the basis of which values should it evaluate alternative directions, and how should it assume responsibility for the consequences of its choices?

In discussions about the future, it is necessary to distinguish between probability and desirability. J. Voros identifies five types of futures: potential, possible, plausible, probable, and preferable:

Potential refers to all futures within the realm of possibility, including those that have not yet been imagined.

Possible refers to conceivable situations that may nevertheless require new knowledge or technologies to become reality.

Plausible describes futures considered reasonable in terms of our existing knowledge and understanding of processes.

Probable refers to situations assessed as highly likely to occur on the basis of current trends and conditions.

Preferable denotes futures considered desirable on the basis of particular values and objectives.

This classification does not represent successive stages of development. Rather, it distinguishes considerations relating to possibility and probability from value-based evaluation. In particular, a plausible situation may be reasonable in light of existing knowledge without necessarily being highly likely to occur. Similarly, a highly probable future does not necessarily coincide with a preferable one. A conclusion about desirability depends on whose interests, which values, and what time horizon are taken into consideration.

In the study of higher education, this distinction helps prevent the confusion of forecasts with normative objectives. For example, identifying the expansion of automated assessment as a probable direction requires relevant supporting evidence. Selecting it as a preferable direction, however, must be justified in terms of assessment reliability, fairness, student autonomy, and the opportunity to challenge decisions. Thus, future-oriented higher education involves not only monitoring existing trends but also exploring alternative possibilities and making well-substantiated choices about preferable directions.

Representing the future through a single prediction makes a university's strategy dependent on one assumption. The OECD's 2020 report describes scenarios not as forecasts or ready-made recommendations but as tools for imagining alternative futures and testing the resilience of plans against unexpected changes. The report focuses on school education; therefore, the present study adopts not its specific scenarios but rather the principle of examining decisions under several different conditions.

Applied to universities, this principle means discussing curricula and institutional decisions under several substantially different circumstances. For example, it is necessary to identify which components of fundamental training would remain essential if a particular professional task were automated, labour market requirements changed, or access to digital tools became restricted. The number of alternative future development scenarios is not, in

itself, an indicator of quality. Their significance lies in their ability to reveal the implicit assumptions and weaknesses underlying a decision.

In analysing technological change, A. Matthews's position concerning the interaction between social and technological dimensions is important. In developing an approach that moves beyond two extreme interpretations, the author considers these dimensions to be in a relationship in which they “influence and mediate one another.” This argument, presented on page 259 of the dissertation, directs attention towards evaluating technology in connection with, rather than separately from, social practices.

In our interpretation, the unit of examination is not limited to an individual platform: the technological tool, the rules governing its use, the pedagogical decision, and the distribution of accountability are analysed together. If an automated recommendation is available, it is also necessary to determine who verifies its conclusions, how a student can challenge them, and who is responsible for correcting errors. These questions are not adopted from Matthews as ready-made criteria; rather, they constitute an analytical application of the author's emphasis on relationships, developed in accordance with the objectives of this monograph.

To avoid limiting the purpose of higher education exclusively to professional training, G. Biesta's approach, which distinguishes between qualification, socialisation, and subjectification, is particularly relevant. The author associates subjectification with a student's freedom to exist and act as a subject of their own life. This interpretation prevents subjectivity from being reduced to a mere collection of individual characteristics or the satisfaction of personal desires.

In the present study, subjectivity is manifested through students' ability to raise questions, request justification, present evidence-based objections, and discuss the consequences of their own choices. This does not eliminate academic rigour. On the contrary, students must understand the knowledge-based foundations of the requirements imposed on them and defend their conclusions with appropriate evidence. Thus, independence and academic standards are considered interrelated.

The social orientation of value-based evaluation is also consistent with the principle of strengthening education as a collective endeavour and a common good, as articulated in UNESCO's 2021 report. This normative orientation provides a basis for considering educational outcomes beyond the scope of individual achievement.

However, the meaning of the public interest requires separate discussion. An order placed by a partner organisation cannot fully represent the interests of society as a whole. It is necessary to identify the groups that benefit from a decision and those that bear additional

burdens, their participation in discussions, and the potential impact on future generations. The academic independence of the university preserves the opportunity to examine these interests, including the possibility of presenting well-substantiated conclusions that may not be favourable to the commissioning organisation.

When determining the time horizon of outcomes, the observations of P. Mattsson, P. Vico, and L. Salö are relevant. Criticising the oversimplification of the value of knowledge, they emphasise that "there is no easy way of knowing what will matter, when and for whom." This statement, presented on page 5 of their work, encourages universities not to equate their value exclusively with immediate practical outputs.

The author's conclusion derived from this is that short-term accountability and the long-term capacity to generate knowledge should be evaluated across different but interconnected time horizons. Alongside the requirement to provide evidence of present-day activities, consideration should also be given to the development of fundamental preparedness for future challenges and the capacity to formulate new research questions. Uncertainty about long-term benefits does not exempt current activities from evaluation; at the same time, present-day indicators do not fully capture the value of all future prospects.

These theoretical considerations are also important for evaluating changes in Uzbekistan's higher education system. In the national context, the future-oriented nature of higher education can be examined through the relationship between the officially declared objectives of reforms, the mechanisms for their implementation, and their verifiable outcomes. The Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030 establishes objectives related to the development of individual learning trajectories, the gradual expansion of academic autonomy, and the promotion of independent learning as well as critical and creative thinking. From the perspective of this monograph, these objectives are interpreted as a normative foundation aimed at developing students' ability not only to acquire established knowledge but also to substantiate, select, and apply it in new situations. However, the inclusion of an objective in an official document does not, in itself, confirm its full implementation in practice.

This distinction becomes particularly evident when evaluating the credit-module system. Paragraph 14 of the Regulation approved by Resolution No. 824 of the Cabinet of Ministers establishes students' opportunity to independently select subjects within the prescribed range of elective courses, while paragraph 16 states that monitoring of the educational process should be directed towards assessing learning outcomes and the validity and alignment of students' academic workloads. Since the scope of application of the Regulation

is limited by paragraph 1, these requirements cannot be applied uniformly to all higher education institutions in the country.

Research conducted in Uzbekistan provides an opportunity to clarify the substantive and methodological conditions for organising independent learning. In particular, B. Kh. Boltayeva, in examining the development of students' independent learning competencies within the credit-module system, emphasises that its purpose is “not to accumulate factual knowledge, but to master methods of activity.” This statement is important for avoiding the limitation of independent learning assessment to the volume of accumulated information or the number of completed assignments. From the perspective of this monograph, its significance lies in directing attention towards students' ability to master methods of acquiring new knowledge, plan their learning activities, and compare their outcomes with the established objectives. However, mastering methods of activity and acquiring substantive knowledge should not be placed in opposition to one another: independent learning is also based on sufficient knowledge of the relevant academic discipline.

In his research devoted to organising students' independent learning through digitalisation, I. S. Umarov reports that the experimental work involved 321 students from Tashkent State Pedagogical University, Chirchik State Pedagogical University, and Kokand State Pedagogical Institute. In presenting the findings, the author notes that “a positive dynamic of 14% was observed in the level of development of students' academic preparedness.” This result demonstrates that independent learning was investigated in connection with digital tools, methodological support, and pedagogical conditions. At the same time, this indicator cannot be interpreted as a universal effect of digitalisation applicable to all universities. It represents a finding reported by the author within the framework of the selected participants, applied methodology, and assessment procedure. Furthermore, equating 14 per cent with 14 percentage points would require separate verification of the calculation method.

In her study devoted to improving independent learning competence within the credit-module system, G. R. Khasanova includes “planning educational activities, independently searching for information, critically analysing it, processing knowledge, and applying it in practice” among the components of this competence. This interpretation provides a basis for understanding independence not merely as the completion of assignments without teacher involvement but as the ability to manage one's own cognitive activity. Its significance for future-oriented higher education lies in the requirement that students should not only use ready-made answers but also be capable of searching for, verifying, and processing information in new situations.

The studies reviewed clarify the authorial approach adopted in this monograph. While these studies examine the competency-based, methodological, and digital conditions of independent learning, we consider their findings in terms of the relationship between the reliability of knowledge, value-based choice, and social responsibility. In particular, the mastery of methods of activity is linked to the criteria for substantiating knowledge; the management of learning activities is associated with subjectivity; and the verification of outcomes is connected with institutional accountability. This relationship is not a direct conclusion of the pedagogical studies cited, but rather a socio-philosophical interpretation derived from their findings.

The professional dimension of the local problem is also illustrated by official information about a meeting held on 8 August 2025 concerning graduates' employment. It reports that 100 vacancies were available at the BYD plant in Jizzakh, one quarter of which were for engineers specialising in robotics, painting, and robot programming. This information reflects the needs of a particular enterprise on a specific date; it cannot be interpreted as the current number of vacancies or as a general conclusion about the preparedness of graduates across all fields.

The socio-philosophical issue arising from this example is not limited to how quickly a university can adapt to current employer demand. Alongside preparing students for specific work tasks required today, a curriculum must preserve fundamental foundations that enable them to update their knowledge when technology and the nature of work change. Therefore, an enterprise's needs constitute important evidence for curriculum revision, but they cannot serve as the sole criterion for determining the aims of education. What is required here is a substantiated balance between short-term employment and long-term professional and intellectual development.

The UNESCO IITE report on Uzbekistan published in 2025 also draws attention to the need to reduce the gap between the skills of new labour market entrants and employers' expectations, organise the development of ICT skills within an integrated strategy, and address persistent gender disparities in STEM and ICT fields. Alongside curriculum updates, the report recommends developing problem-solving, strategic thinking, decision-making, and collaboration skills. These conclusions relate to digital and ICT preparedness and cannot be generalised to all fields of education without supporting evidence.

This analysis demonstrates the need to assess knowledge, values, and social responsibility as interconnected dimensions within the local context. The knowledge dimension concerns the reliability of information about professional needs and the substantiation of educational outcomes; the value dimension concerns the opportunities available to different groups to make choices and prepare themselves; and social responsibility

encompasses the roles of the university, students, and partner organisations in identifying outcomes and addressing shortcomings. For example, when a student is unable to complete a digital assignment, it is necessary to distinguish between a lack of knowledge and limited access to the required technology. Otherwise, an assessment may conflate learning outcomes with access to resources. This is not an established empirical conclusion about inequality within a particular group, but a distinction to be examined in local research.

Thus, in the context of Uzbekistan, the future-oriented nature of higher education can be clarified by jointly assessing adaptation to current needs, students' independent choices, and long-term social consequences. The documents and analytical sources examined provide a basis for raising this issue; however, the effectiveness of the proposed criteria at a particular university must be examined separately through curricula, student work, interviews, and partner evaluations. Accordingly, local materials are incorporated not merely as external examples supporting a theoretical definition, but as a basis for clarifying its practical implications and directions for verification.

In defining the concept of future-oriented higher education, it is necessary to distinguish its specific characteristics from the general quality requirements of higher education. The reliability of knowledge, fairness of educational opportunities, and social responsibility are general requirements of higher education. Future-orientedness, by contrast, is characterised by how educational objectives, content, and institutional decisions are substantiated under conditions of uncertainty about the future. Therefore, the introduction of digital technologies or references to prospective professions alone is insufficient to establish this characteristic.

Drawing on the approaches discussed above, this study identifies three interrelated characteristics. The first is the assessment of a decision under substantively different alternative future conditions, rather than making it dependent on a single anticipated situation. The second is the consideration of long-term educational and social consequences alongside the immediate outcomes of a decision. The third is the establishment of grounds and procedures for reconsidering a decision when initial assumptions no longer hold or new evidence emerges. These characteristics have been selected to describe future-orientedness within the scope of this study; they are not presented as a single definitive classification applicable to all approaches.

On this basis, future-oriented higher education is defined as an approach to organising higher education that involves determining educational objectives, content, and institutional decisions through the assessment of alternative future conditions and their long-term

consequences, as well as establishing procedures for reconsidering them when new evidence emerges.

In this working definition, the unit of analysis is the university's educational decision. Such a decision may concern curriculum revision, the establishment of assessment procedures, the selection of technological tools, or the organisation of collaboration with the community. Students' learning activities are examined in relation to the implementation and outcomes of these decisions. This delimitation prevents individual learning activities and institutional governance from being interpreted as phenomena operating at the same analytical level.

Within this approach, knowledge, values, and social responsibility represent interrelated substantive requirements for substantiating a decision. The reliability of knowledge requires identifying the evidence on which a decision is based and recognising the limitations of that evidence. Values serve to assess how human dignity, justice, and the interests of different groups are taken into account in a decision. Social responsibility, in turn, reveals who is affected by the consequences of a decision, what obligations are assigned to the participants, and how accountability for the outcomes is established.

The practical application of this definition can be examined through decision-making documents and the outcomes of activities. Observable indicators include the comparison of alternative options; the recording of long-term consequences and uncertainties; the substantiation of the evidence used and value-based choices made; and the identification of those responsible for reconsidering a decision, together with the relevant conditions. The presence of these indicators in documents does not, in itself, confirm practical effectiveness; it is also necessary to examine how they are implemented in actual activities.

On the basis of this definition and the characteristics that clarify it, five evaluation criteria are proposed for the subsequent analysis. They serve to examine the characteristics of future-orientedness discussed above in relation to the substantiation of knowledge, values, subjectivity and social responsibility, and institutional practice.

Table 1.1. Proposed Criteria for Future-Oriented Higher Education

No.	Criterion	Evaluation question	Example of an expected indicator
1	Substantiation of knowledge	What evidence underpins the decision, and are the limitations of that evidence identified?	An assignment involving source verification, an evidence-based conclusion, and a record of error correction.
2	Preparedness for alternative futures	Does the decision remain justified under different conditions?	Comparison of scenarios, identification of assumptions, and specification of conditions under which the decision may become less viable.

No.	Criterion	Evaluation question	Example of an expected indicator
3	Value-based substantiation	For whom is the choice acceptable, and whose opportunities does it restrict?	Consideration of stakeholder groups and issues of fairness in the rationale for the decision.
4	Subjectivity and social responsibility	Who makes the choice, explains it, and discusses its consequences?	Evidence-based objections, justification of the decision, and an established distribution of responsibility.
5	Institutional continuity and reconsideration	How are requirements incorporated into regular practice, and when are they revised?	A mechanism for reviewing curricula, assessment procedures, and collaboration outcomes on the basis of evidence.

Although the criteria are assessed separately, the relationships between them must be maintained. A decision based on reliable sources may still produce unjust consequences; a socially acceptable objective may fail to achieve its expected outcome if it relies on unverified knowledge. Similarly, student initiative may not develop into sustainable practice without supporting procedures and resources. Therefore, achievement in one criterion does not automatically compensate for shortcomings in the others. Combining them into a single score and assigning weights would require separate empirical substantiation.

The authorial contribution of the proposed approach lies in systematising the substantiation of knowledge, preparedness for alternative futures, values, subjectivity and social responsibility, and institutional reconsideration as interrelated evaluation criteria. These criteria are clarified through evaluation questions and examples of observable indicators. The position of this approach in relation to the sources examined, as well as the scope of its application, is presented in the following comparative table (Table 1.2).

Table 1.2. Theoretical Foundations of the Approaches Examined and Their Application in the Authorial Synthesis

Approach	Theoretical foundation drawn from the source	Authorial application in the present study
Voros	Distinguishing conceptions of the future in terms of possibility, consistency with existing knowledge, probability, and desirability.	Distinguishing knowledge-based assumptions from value-based preferences when evaluating alternative futures.
OECD	Testing the resilience of existing assumptions and plans under different conditions through alternative futures.	Applying the methodological principle presented in a report on school education to the analysis of university decisions.
Matthews	Taking into account the interaction between technological and social dimensions and the ways in which they mediate one another.	Analysing technological tools, pedagogical practices, and responsibility for decisions as interconnected elements.

Approach	Theoretical foundation drawn from the source	Authorial application in the present study
Biesta	Viewing qualification, socialisation, and subjectification as interrelated dimensions of educational objectives.	Incorporating students' independent positions, substantiated choices, and responsibility towards others into the evaluation questions.
UNESCO	Understanding education as a collective endeavour and a common good.	Evaluating decisions from the perspectives of human dignity, justice, stakeholders' interests, and long-term social consequences.
Mattsson and co-authors	Recognising the difficulty of fully determining in advance for whom, when, and in what ways university activities will be significant.	Applying this observation concerning university research as a methodological basis for assessing educational outcomes and benefits to the community over different time horizons.

This comparison indicates the conceptual position of the study within the sources examined. It does not constitute a systematic review covering all relevant literature or proof of absolute novelty. The scholarly value of the authorial synthesis is substantiated through its explanatory capacity, internal consistency, and application in subsequent chapters. Its empirical usefulness, in turn, requires separate verification.

For example, in a student project involving the community, the quality of information sources, solutions under different conditions, the distribution of benefits and burdens, participants' roles in decision-making, and procedures for making adjustments based on feedback can be examined together. In this way, knowledge, values, and social responsibility do not remain general appeals but emerge as interconnected requirements for evaluating project decisions. In this context, the fact that an activity has been carried out does not, in itself, prove that an educational outcome has been achieved or that the community has benefited.

Conclusion. Thus, the essence of future-oriented higher education extends beyond adapting to a predetermined future. It develops the capacity to understand alternative conditions, make value-based choices grounded in reliable knowledge, and reconsider activities in response to new evidence concerning their consequences.

The content of future-oriented higher education is determined by the ability to make substantiated decisions under conditions of uncertainty and to reconsider them when necessary. An educational model based on a single vision of the future restricts alternative development opportunities. Therefore, future-orientedness requires the analysis of alternative scenarios, consideration of the long-term consequences of decisions, and clarification of objectives and means when new evidence emerges. This characteristic should be reflected both in educational content and in the university's institutional decisions.

References:

[1]. ALLEA. The European Code of Conduct for Research Integrity. – Revised Edition 2023. – Berlin: ALLEA, 2023. – P. 5. – DOI: 10.26356/ECOC.

[2]. Ash S. L., Clayton P. H. Generating, Deepening, and Documenting Learning: The Power of Critical Reflection in Applied Learning // Journal of Applied Learning in Higher Education. – 2009. – Vol. 1. – P. 41.

[3]. Biesta G. Good Education in an Age of Measurement: On the Need to Reconnect with the Question of Purpose in Education // Educational Assessment, Evaluation and Accountability. – 2009. – Vol. 21. – P. 33–46. – DOI: 10.1007/s11092-008-9064-9.

[4]. National Co-ordinating Centre for Public Engagement. High Quality Engagement Framework [Elektron resurs]. URL: https://www.publicengagement.ac.uk/resources/tools-and-frameworks/high-quality-engagement-framework

[5]. Nussbaum M. C. Creating Capabilities: The Human Development Approach. – Cambridge, MA; London: Harvard University Press, 2011. – DOI: 10.4159/harvard.9780674061200.

[6]. OECD. Applying Evaluation Criteria Thoughtfully. – Paris: OECD Publishing, 2021. – DOI: 10.1787/543e84ed-en.

[7]. Sultanov O. S. Talaba-yoshlarda ijtimoiy mas'uliyat tushunchasini shakllantirishning ijtimoiy-falsafiy asoslari: falsafa fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati. – Buxoro, 2025. – B. 11.

[8]. Umarov I.S. Talabalar mustaqil ta'limini tashkil etishning pedagogik sharoitlarini raqamlashtirish asosida takomillashtirish (kredit-modul tizimi misolida): pedagogika fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati. – Toshkent, 2025. – B. 6.

[9]. Becker G. S. Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. – 3rd ed. – Chicago: University of Chicago Press, 1993. – DOI: 10.7208/chicago/9780226041223.

[10]. Biesta, G. Risking Ourselves in Education: Qualification, Socialization, and Subjectification Revisited // Educational Theory. – 2020, 2020. – Vol. 70, No. 1. – P. 89 –104.. DOI: 10.1111/edth.12411.

[11]. Boltayeva B.X. Kredit-modul tizimida talabalarning mustaqil ta'lim olish kompetensiyalarini rivojlantirish metodikasini takomillashtirish: pedagogika fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati. –Toshkent, 2025. – B. 11.

[12]. International Commission on the Futures of Education. Reimagining our futures together: A new social contract for education. UNESCO, 2021. Rasmiy taqdimotdagi "public

endeavour and a common good” tamoyili. https://www.unesco.org/en/articles/reimagining-our-futures-together-new-social-contract-education.

[13]. Matthews, A. Humans, higher education and technology – a corpus-assisted discourse and genealogical analysis of the idea of a university. PhD thesis. University of Birmingham, 2021, 259-b. https://etheses.bham.ac.uk/id/eprint/11764/ Iqtibos tarjimasi muallifniki.

[14]. Mattsson, P., Perez Vico, E., Salö, L. Introduction: Universities and the Matter of Mattering. In: Making Universities Matter: Collaboration, Engagement, Impact. Cham: Springer, 2024, 1–10, xususan 5-b. DOI: 10.1007/978-3-031-48799-6_1. Iqtibos tarjimasi muallifniki.

[15]. Miao F., Holmes W. Guidance for Generative AI in Education and Research. Paris: UNESCO, 2023. DOI: 10.54675/EWZM9535. URL: https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research

[16]. Mirziyoyev Sh. M. O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyevning O‘qituvchi va murabbiylar kuniga bag‘ishlangan tantanali marosimdagi nutqi. 30.09.2020. O‘zbekiston Respublikasi Prezidentining rasmiy veb-sayti. URL: https://www.president.uz/oz/lists/view/3864

[17]. O‘zbekiston Respublikasi Prezidentining 2019-yil 8-oktabrdagi PF-5847-son “O‘zbekiston Respublikasi oliy ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida”gi Farmoni. 1-ilova, 3-bob, 1-§. – URL: https://lex.uz/docs/-4545884

[18]. O‘zbekiston Respublikasi Prezidentining rasmiy veb-sayti. Bitiruvchilar bandligini ta’minlash bo‘yicha yangi yondashuvlar belgilandi. – 08.08.2025. – URL: https://president.uz/oz/lists/view/8372

[19]. O‘zbekiston Respublikasi Vazirlar Mahkamasining 2020-yil 31-dekabrdagi 824-son “Oliy ta’lim muassasalarida ta’lim jarayonini tashkil etish bilan bog‘liq tizimni takomillashtirish chora-tadbirlari to‘g‘risida”gi qarori. 1-ilova, 1-, 14- va 16-bandlar. – URL: https://lex.uz/docs/-5193564

[20]. OECD. Back to the Future of Education: Four OECD Scenarios for Schooling. Paris: OECD Publishing, 2020, 7-b. DOI: 10.1787/178ef527-en.

[21]. Umarov I.S. Ko‘rsatilgan asar. –B. 19.

[22]. UNESCO IITE. ICT Skills Development in the Republic of Uzbekistan: Insight Report with Recommendations. – 2025. – P. 33–34. – ISBN 978-5-6046449-9-7. – URL: https://iite.unesco.org/wp-content/uploads/2026/03/ICT-Skills-Development-in-Uzbekistan_2025.pdf

[23]. Voros, J. A generic foresight process framework. Muallifning 12 October 2005 sanali kengaytirilgan versiyasi, 12–14-b. 2003-yilgi dastlabki jurnal nashri: Foresight, 5(3), 10–21. DOI: 10.1108/14636680310698379.

[24]. Xasanova G.R. Kredit-modul tizimi sharoitida talabalarning mustaqil ta’lim olish kompetentligini takomillashtirish (pedagogika fanlari misolida): pedagogika fanlari bo‘yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati. – Urganch, 2026. – B. 13.