

UDC 371.2

<https://doi.org/10.33619/2414-2948/116/66>

PERSPECTIVE PLANNING OF MODERN EDUCATION: STRATEGIC PODHODY AND TENDENCY DEVELOPMENT

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ПЕРСПЕКТИВНОЕ ПЛАНИРОВАНИЕ СОВРЕМЕННОГО ОБРАЗОВАНИЯ: СТРАТЕГИЧЕСКИЕ ПОДХОДЫ И ТЕНДЕНЦИИ РАЗВИТИЯ

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Abstract. The article analyses the main priority areas and challenges, drawing on international research in the field of long-term educational planning. Key planning components are also commented on in the context of digital transformation, inclusion, teacher training and assessment systems. The article analyzes the principles of strategic planning in education at the international level and conducts a comparative study of the experience of countries such as Finland, Singapore and Azerbaijan. The purpose of the study is to analyze successful strategies of various countries and propose models and approaches that can be applied in Azerbaijani education. The article also analyzes the methodologies and strategic approaches used to improve the process of long-term planning in the higher education system of Azerbaijan. Modern methods and approaches used for proper planning of the future development of higher education institutions were also considered. The article analyzed strategic approaches and trends in the development of long-term planning in the modern education system; the study used both qualitative and quantitative methods.

Аннотация. Анализируются основные приоритетные направления и проблемы, опираясь на международные исследования в области перспективного планирования образования. Ключевые компоненты планирования также комментируются в контексте цифровой трансформации, инклюзивности, подготовки учителей и систем оценки. В статье анализируются принципы стратегического планирования в образовании на международном уровне и проводится сравнительное изучение опыта таких стран, как Финляндия, Сингапур и Азербайджан. В статье также анализируются методологии и стратегические подходы, применяемые для совершенствования процесса перспективного планирования в системе высшего образования Азербайджана. Рассмотрены современные методы и подходы, используемые для правильного планирования будущего развития высших учебных заведений. Проведен анализ стратегических подходов и тенденций развития перспективного планирования в современной системе образования, в исследовании использовались как качественные, так и количественные методы.

Keywords: educational policy, strategic planning, transformation, educational practice, inclusiveness, educational management.

Ключевые слова: образовательная политика, стратегическое планирование, трансформация, образовательная практика, инклюзивность, образовательный менеджмент.

In the 21st century, globalization, technological development and changing demands of society require new approaches and flexible planning from the education system. Against the

background of globalization and technological innovations, the prospective planning of education systems is becoming an increasingly strategic and complex field of activity. Modern education no longer involves only the transfer of knowledge, but also the formation of competencies such as analytical thinking, creativity, digital skills and global citizenship. For this reason, the prospective planning of education is of strategic importance. The education system is considered one of the fundamental pillars of national security and sustainable development of every state. The formation of a knowledge economy in the modern world requires flexible, predictable and inclusive approaches from education systems. In this regard, prospective planning of education is not only a management tool, but also a scientifically based mechanism for predicting future development [1].

As the UNESCO report emphasizes, “education must meet the needs of not only today but also tomorrow” [2].

For the sustainable development of education and the establishment of a system that can respond to global challenges, forward-looking planning is essential. Improving the concept of digital education in the teaching of biology and implementing a modern digitalization strategy are now a necessity [3, 4].

In recent years, there has been a need to implement perspective planning based on scientific and research foundations of educational strategies. So what is the essence of forward planning? Forward planning is the identification of long-term goals and the development of systematic steps to achieve these goals. The strategy should not be based only on a normative framework, but should also respond to dynamic social changes [5].

According to the OECD’s 2020 report, “countries should make education planning more evidence-based and incorporate innovative methodologies” [6]. The planning process is a management tool that sets strategic goals for education and involves sequential steps to achieve these goals. According to recommendations from international organizations such as UNESCO and OECD, forward planning should be based on the principles of inclusiveness, flexibility, quality, and efficiency enhancement [2, 6].

Educational planning includes three main stages: the analytical stage involves analyzing the current state of the education system and applying internationally approved methods; strategy development involves determining goals and indicators, allocating resources; implementation and monitoring involves implementing the existing plan, evaluating it, and making necessary adjustments. One of the main features of 21st century education is digital transformation. Digital tools and platforms are having a profound impact on the content, methodology, and management of education. Future planning should prioritize the development of digital skills, the expansion of distance learning opportunities, and the application of artificial intelligence technologies in line with these changes. The digitalization of education, especially during the pandemic, has had a significant impact on the structure of planning [4].

In the perspective planning of education, the alignment of teacher training programs with sustainable development goals, as well as the development of their social-emotional skills, play a key role. Anderson (2008) notes that the integration of digital technologies into teaching promotes individualized learning and enables the massification of education [7]. However, digital divides and infrastructure inequalities must be considered in strategic planning [8].

It is known that the teacher factor plays a crucial role in building an effective education system. Hargreaves and Fullan (2012) emphasize the role of teachers not only as educators, but also as leaders and change agents [1]. Prospective planning should include components such as eliminating regional disparities, integrating socially vulnerable groups into education, and maintaining gender balance. This approach should also be aligned with the UN Sustainable Development Goals (SDG-4). Black and Wiliam note that formative and summative assessment

approaches are key mechanisms for increasing the effectiveness of strategic planning [1]. The PISA and Education at a Glance reports prepared by the OECD provide countries with comparative analysis opportunities in this regard. Banks (2009) states that inclusion is not just physical participation, but also equal access to educational resources, curricula, and the social environment [9].

UNESCO's 2021 report recommends ensuring social justice in educational planning and minimizing ethnic, gender, and social status disparities. Azerbaijan's education sector has also undergone serious development and reconstruction in recent years: Over the past 10 years, school infrastructure has been significantly improved - more than 3,000 school buildings have been renovated or rebuilt. The number of international projects such as dual degree programs (ADA University + foreign partners) in higher education, Erasmus+ and DAAD, has increased, school data has been electronicized through the Education Management Information System (EMIS), a fundamental transition to digitalization in education has been made, and Azerbaijani education planning is continuously developing [2].

Material and methodology

In the modern era, it is necessary for education not to be limited to traditional functions, but to adequately respond to the changing labor market, the evolution of the social structure, and technological progress. In this context, prospective planning of education should be carried out with a systematic approach, scientific justification, and the application of flexible management mechanisms. In perspective planning, the development of professional development programs for teachers, strengthening certification mechanisms, and improving working conditions are among the main strategic directions. A modern teacher should not only be a transmitter of knowledge, but also a facilitator and mentor. Ensuring equal opportunities in education is important for the sustainable development of society. The qualitative development of education is possible not only through planning, but also through its monitoring and measurement of results. The effectiveness of planning in the field of education can be measured through systematic evaluation and monitoring. Teacher training in higher education institutions is not limited to pedagogical training alone, but is also enriched with research-oriented training, academic improvement, and international teacher exchange programs. In secondary schools, the focus is on professional development courses in line with curriculum reforms and technological solutions such as e-PDS (electronic Professional Support System). This increases methodological and technical support for teachers in their daily activities. In higher education institutions, assessment is carried out through student portals, outcome-based teaching and research assessment. That is, the results of the student's learning process are taken as the basis. In secondary schools, more visual and continuous monitoring methods are applied, such as formative assessment, electronic journals and student portfolios. This makes it easier for teachers and parents to monitor student progress. The establishment of quality indicators, a results-based management model, and evidence-based decision-making mechanisms play an important role in this direction. Accessible educational resources and support programs for students with physical disabilities should be developed in higher education institutions. This can ensure the creation of an inclusive educational environment in universities. In secondary schools, adapted teaching can be offered to students with physical and psychological differences through resource rooms and individual learning plans to ensure the principle of equal opportunities. Digital transformation, which is one of the important components of strategic planning, involves the integration of innovations and technological developments in the education system. In higher education, this is mainly realized through hybrid teaching models implemented on LMS (Moodle, Blackboard, etc.) platforms, which encourage flexibility of teaching and independent learning. In secondary schools, the use of more technical tools - smart boards, student tablets and international online cooperation

projects (for example, eTwinning) - is becoming more prominent. Although these different approaches serve to increase digital literacy at both levels of education, higher education institutions are implementing this transformation using more systematic platforms, and secondary schools are implementing practical and technical tools. Continuous professional development of teachers is one of the central elements of strategic planning. In higher education institutions, this process is strengthened through pedagogical training, scientific research activities and international exchange programs, which ensure the unity of teaching and research. In secondary schools, the main focus is on professional development courses adapted to curriculum reforms and the e-PDS system for electronic monitoring of teacher performance. These differences indicate that teacher training in higher education institutions is developed more in a scientific and international framework, while in secondary schools it is based on structured training and methodological support. The application of the principles mentioned below is given in a diagram and table on the example of one higher education institution and one secondary school. Perspective Planning Model of Education (for Higher and Secondary Schools)

Table 1

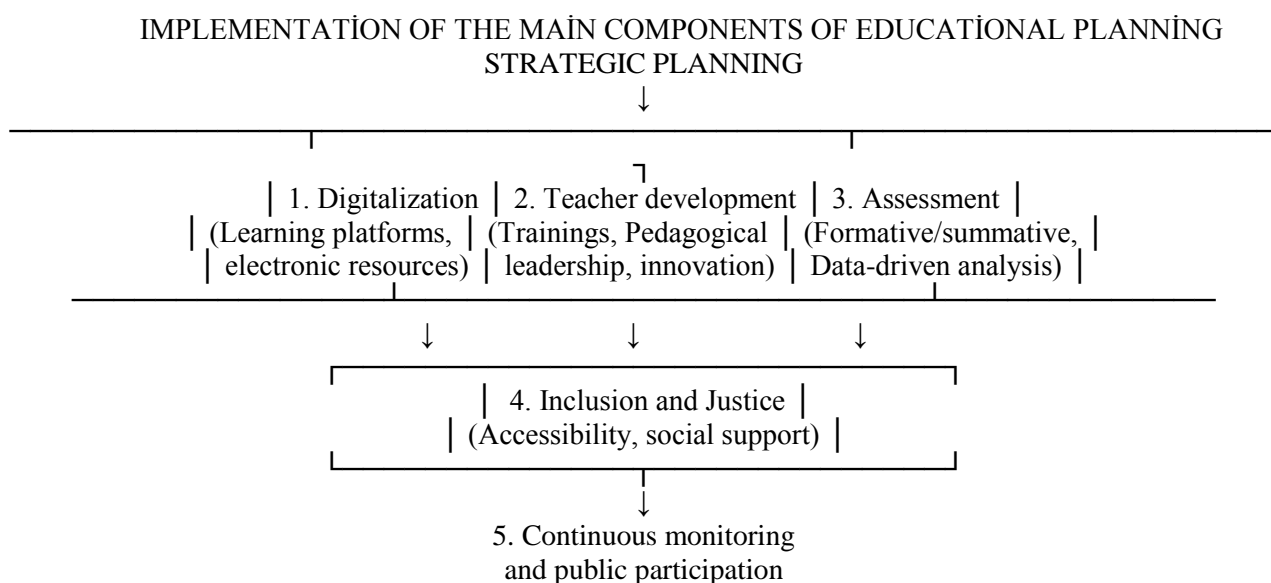
APPLICATION OF STRATEGIC PLANNING

| <i>Planning Component</i> | <i>High School</i> | <i>Middle School</i> |
|-----------------------------------|--|--|
| Digital Transformation | LMS platforms (Moodle, Blackboard), hybrid educational models are being implemented. This increases the flexibility and personalization of teaching. | Digital initiatives are underway, such as the use of smart boards, involving students in lessons with tablets, and international eTwinning projects. |
| Teacher Training and Development | Research-oriented trainings and international experience exchanges are being carried out for teachers in higher education institutions. | In secondary schools, in-service training courses are widely used as part of improving pedagogical skills and curriculum reforms. |
| Assessment and Monitoring | Assessment is mainly outcome-oriented: assessments are carried out on student portals, research, and coursework. | In secondary schools, formative assessment, electronic journals, and student portfolios are the main mechanisms. |
| Inclusion and Equal Opportunities | Equal opportunities are created in higher education institutions with accessible resources and specialized support services. | The implementation of inclusive education through individual learning plans and resource rooms is expanding in secondary schools. |
| International Integration | Equal opportunities are created in higher education institutions with accessible resources and specialized support services. | The implementation of inclusive education through individual learning plans and resource rooms is expanding in secondary schools. |
| Public Participation | Student participation in governance is ensured through the Student Council and faculty advisory groups. | The parent committee and student parliament promote public participation in secondary schools. |

The table shows that digital transformation in higher education is mainly driven by LMS (Learning Management System) platforms, such as Moodle and Blackboard. Hybrid (traditional + online) learning models are also part of this transformation. This creates flexible learning opportunities for students. In secondary schools, the introduction of more technical equipment is at the forefront: smart boards, tablets for students, and digital cooperation between schools is being strengthened through international eTwinning projects. Higher education institutions are joining the international network by participating in Erasmus+, Horizon Europe, and other international scientific and educational programs on a global scale. Secondary schools, on the other hand, gain international experience and comparative opportunities mainly by participating in international

assessment programs such as UNESCO ASPNet, school projects and PISA. In higher education institutions, public participation is ensured through Student Councils and faculty advisory groups. These structures enable students to participate in the decision-making process. In secondary schools, this function is carried out through Parent Committees and student parliaments. This both develops students' leadership skills and increases the integration of parents into school life.

The following diagram presents the five main components of educational planning and their implementation mechanism in a simple way.



These schemes and tables are conceptual approaches developed by other researchers and can be adapted to the planning documents of specific educational institutions to derive strategic planning for different institutions. Thus, although the strategic planning components in higher and secondary schools are under the same headings, the depth of measures, the level of technology use, and the application methods are different. In higher education, there is a greater emphasis on academic depth and international orientation, while in secondary education, there is a focus on practical adaptation and a student-centered approach. Assessment and monitoring strategies for tracking and improving learning outcomes provide a basis for continuous improvement in strategic planning. In higher education, this is done through student portals, in the form of outcome-based assessment and evaluation of research activities. This approach focuses on students' learning indicators and scientific activity. In secondary schools, a more process-based assessment system is established through electronic journals, formative assessment methods and portfolios. This allows for a gradual monitoring of the student's development in the learning process and facilitates flexible educational interventions. The strategic planning of educational institutions should be based on the principles of social justice and equal opportunities. In higher education, inclusive education is implemented through the creation of accessible learning resources and support services for students with disabilities or from different social groups. In secondary schools, this approach is shaped by providing support to students with physical and psychological needs through individual learning plans and resource rooms. The goal at both levels of education is to ensure that education is accessible and of high quality for everyone, but the form and scope of measures vary according to the level of the institution.

Results and discussion

In a globalizing world, international recognition and cooperation of educational institutions is one of the strategic goals. In higher education, this is realized through Erasmus+, Horizon Europe

and participation in international scientific conferences. These events increase the academic reputation of universities and the international experience of students. In secondary schools, adaptation to international educational criteria is carried out through programs such as UNESCO ASPNet, twin school projects and PISA assessments. As a result, international integration at both levels is an important tool for improving the quality of education and adopting world experience. Below is a conceptual table and percentage indicators. The table compares international practices, Azerbaijani reality and the level of implementation of priority areas in strategic planning.

Table 2

LEVEL OF IMPLEMENTATION OF THE MAIN COMPONENTS
OF PROSPECTIVE EDUCATIONAL PLANNING

| <i>Nº</i> | <i>Components</i> | <i>Finland, %</i> | <i>Singapore, %</i> | <i>Azerbaijan, %</i> | <i>Note and Comment</i> |
|-----------|---------------------------------------|-----------------------|-------------------------|--------------------------|--|
| 1. | Digital transformation | 95 | 92 | 75 | The stage of development in Azerbaijan - the level of infrastructure varies across regions |
| 2. | Teacher training and development | 98 | 96 | 85 | Although the NQF and certification are being implemented in Azerbaijan, continuous development continues |
| 3. | Assessment and monitoring | 93 | 90 | 72 | International assessment (PISA, PIRLS) practices have begun to be implemented |
| 4. | Inclusion and equal opportunities | 97 | 89 | 69 | The legal framework is in place, but implementation mechanisms and physical facilities are being created |
| 5. | Public participation and transparency | 91 | 88 | 78 | Parent, teacher and student participation is present, decision-making is democratic |

These indicators are not empirical research results, but rather evaluative (expert-based) estimates based on existing international and national strategic documents, as well as scientific literature. In Azerbaijan, low percentages indicate that the system is at an early stage, while high percentages indicate successful experiences. In Finland and Singapore, the systematic nature of planning is reflected in high results in the implementation of components. The strongest aspect of planning components in Azerbaijan is the structured steps taken in the field of teacher training (certification, curriculum reforms, etc.). Development is also ongoing in other areas.

Conclusions and recommendations

Strategic planning is an important management tool for the sustainable development and quality improvement of the education system. The purposeful and systematic application of various planning components at both the higher and secondary school levels not only increases the efficiency of the educational process, but also strengthens the interaction of educational participants (teachers, students, parents, administrators). The components analyzed in the table - digital transformation, teacher development, assessment, inclusion, international integration and public participation - play a key role in the formation of educational strategies. The implementation of these components should be tailored to the specific needs and capabilities of each educational level and should be focused on real and sustainable results. While higher education institutions are more research-oriented and internationally integrated, practical measures and models based on social justice are at the forefront in secondary schools. The perspective planning of modern education is a multi-level and complex process and should be carried out in accordance with not only current needs, but also long-term national and global trends. Educational strategies formed on the basis of

the proposed approaches can lead to the following results: ensure continuous development of teachers; make digital technologies an integral part of training; prioritize inclusion and social justice; implement evidence-based management systems; prepare personnel for the future labor market; strengthen digital and social competencies; ensure transparency and accountability in the education system; ensure individual work with conservative personnel.

In addition, we would recommend that:

A national strategy on digital skills should be developed, ensuring equal development of technological infrastructure at school and university levels.

A single online training platform for teacher development should be created, and opportunities for improvement should be expanded for both higher and secondary school teachers.

Assessment systems should be made more flexible and transparent, and supported by digital monitoring tools.

Additional legal and financial mechanisms should be formed for the implementation of inclusive education, and support for pedagogical staff in this direction should be strengthened.

International cooperation opportunities of educational institutions should be expanded, and global internship programs for both teachers and students should be encouraged.

Public participation mechanisms should be strengthened, and the voices of parents, students and public organizations should be taken into account in the management of educational institutions.

A monitoring and coordination center for educational planning should be established at the national level, and the effectiveness of the applied strategies should be periodically evaluated.

When developing national education strategies, a balance should be maintained between local context, international experience and scientific research, based on STEM principles, and public participation should be ensured. Also, the close familiarity and ideas of higher and secondary school teachers with these processes should be taken into account. If all this is taken into account, school-family cooperation will benefit the common cause.

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*Работа поступила
в редакцию 12.04.2025 г.*

*Принята к публикации
17.04.2025 г.*

Ссылка для цитирования:

Babayeva Z. Perspective Planning of Modern Education: Strategic Podhody and Tendency Development // Бюллетень науки и практики. 2025. Т. 11. №7. С. 462-469. <https://doi.org/10.33619/2414-2948/116/66>

Cite as (APA):

Babayeva, Z. (2025). Perspective Planning of Modern Education: Strategic Podhody and Tendency Development. *Bulletin of Science and Practice*, 11(7), 462-469. <https://doi.org/10.33619/2414-2948/116/66>