

"EDUCATION AND THE DIGITAL TRANSITION IN EUROPE - POLICIES AND ATTITUDES"

Monography

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SUMMARY

The research summarizes and analyzes the developed policies and strategies in the field of education both at European and national level and tries to understand how the announced intentions of the Bulgarian government are adequate to the specific needs of Bulgarian education and how effectively the EU recommendations and instruments are used and implemented. Contextual analysis can contribute to building an informed position from which to argue what has been done and what is missing. Regarding the digital transition, answers are sought not only about the approaches that address the challenges, not only about the effectiveness to date, but also about the attitudes of users towards the changes that digitalization requires. The conclusions of the national survey of student attitudes would be in favor of the universities for specific decisions about the forms of education, the ratios between them, the necessary data from the feedback, etc.

The research shows that when making management decisions in the sector, a deeper analysis is needed of how, in the given period, the quality of investments in education can be determined, how they contribute to increasing economic growth, how they help to deal with economic consequences of demographic changes. Digitization does not just happen because of a certain

situation, nor does it automatically guarantee quality, but it is something that leads to undeniable and fundamental changes in education at all levels. If universities want to participate, they must be prepared to move quickly and adequately. It is not enough to just accept and navigate the dynamic conditions. The challenge is to have the knowledge and skills to make it so that we do not follow the increasingly perfect machines and artificial intelligence, but that they follow us.

The general objective of the monograph are the policies and management of education at national and European level in the last few years. The specific objective is the study of the developments and the interrelationships between them, influenced by the pandemic and the preceding crises in relation to the digital transition. The study aims to examine, at a theoretical and empirical level, the dynamics of the development of digitalization as a priority in educational policies as well as the feedback from users. Exploring all educational levels, including vocational training and lifelong learning, is done in order to build a common picture of processes and measures to be taken into account when defining policies in higher education as complementary and enhancing. Digitization and the changes it causes in education cannot be reversed. The pandemic crisis has revealed the potential of online teaching and learning, but it has also revealed huge gaps in technological capacity in infrastructure and human capital in some schools and universities. For this reason, policies, as well as institutions, should aim for a balanced approach and the introduction of electronic and online learning should be systematic, following a defined strategy, requiring prior preparation, in close interaction with the traditional issues of the learning process. The mainstone should be the quality of education. The future needs quality-driven digitization in the service of learner development and achievement.

The methodology applied in the study is a combination of qualitative and quantitative analysis. Qualitative analysis is used to examine basic theoretical and empirical data existing in the specialized literature to outline European trends, their perception in Bulgarian environment, the measures applied and their effect – positive or unsatisfactory. Considerable space is devoted to the review of official documents, empirically examined by the means of document analysis.

The student study used Rosenberg's 1956 model of attitudes (presumptive consumer behavior) built on two variables (Tuncalp, Jagdish 1975): (a) the perceived usefulness of the object for blocking or achieving a set of valued states,

goals, or tasks and (b) the relative importance of these appraised states, goals, or tasks to the individual. The instrument used to collect empirical data on student attitudes in the present study contains 32 questions - 5 demographic, 1 NPS for general attitude toward online learning, and 26 related to student attitudes toward various aspects of online learning divided into 5 factors - Support, Convenience, Difficulty, Communications, Technology. Correlation between questions, Bartlett's test of sphericity and the Kaizer-Mayer-Olkin test were checked. The variables correlate acceptably with each other. Bartlett's test is significant ($p=0.000$) and KMO shows acceptable shared variance (0.968) - there is overlap but no indication of multicollinearity. Cronbach's alpha coefficient is 0.9462. Based on the behavior of the results, we can conclude that the questionnaire is adequate for the purpose of revealing students' attitudes towards online learning. A confirmatory factor analysis (structural equation modeling) was made, where all factor loadings (factor loadings, $P>|z| = 0.000$) were significant, which indicates that the relationship between the questions and the factors is statistically significant. The questionnaire was distributed and filled out electronically by students of 45 higher education institutions in Bulgaria from the 9 professional fields, using a five-point Likert scale for answers - 1-strongly disagree to 5-strongly agree. Statistical analysis was performed with the STATA12 software package. Comparison was performed using Kruskal-Wallis test and ANOVA test. Correlation between variables was assessed using Pearson's correlation coefficient (r). A p-value at 0.05 was used to determine the level of significance.

We also use the interpretivism approach as a qualitative analysis, as we consider it appropriate when investigating different practices (especially for the first time) because they can best be understood through the way people perceive them, i.e. the human interest in the research is considered. In the interpretive approach, it is believed that the understanding of reality can only be done through social constructions such as consciousness, shared meanings and tools, i.e. knowledge is not objective but is transmitted through discourses, ideas and experiences. Among the qualitative methods that interpretivism prescribes are observation and focus groups, used in the present study, mainly in Chapter Four. Quantitative analysis is applied in the processing and analysis of the collected empirical data for the purposes of the conducted study of student attitudes towards changes in the educational process and the widespread application of online forms during the research period.

The monograph is structured in four chapters:

In the First and Second Chapters, up-to-date documents of the EU institutions in the field of education, which served as a framework for the development of strategies and plans at the national level, were examined and analyzed. Data on the results of previous actions until 2020 with a positive or negative effect are presented, including the actions of Bulgaria in response to European policies. The impact of the pandemic crisis on various elements of the organization and processes in educational institutions has been studied.

The third chapter is dedicated to the trends for the introduction of digitization in education, as the analysis aimed at understanding the effect of the intensive implementation - to what extent positive and negative consequences are distinguished, to what extent there is clarity about the preparedness of trainers and trainees, to what extent the infrastructure and equipment corresponds to the development of technologies and, last but not least, to what extent the measures and forms that the state or individual institutions are currently applying meet the needs and expectations of new generations of schoolchildren and students.

Chapter Four presents results from the author's national survey of 1004 students from 45 higher education institutions (HEIs) regarding their attitudes toward online learning, which was the primary form of education they received for the past

two years in the 2020-2021 period. In the first three chapters, higher education is given special attention, in light of the increased requirements for competitiveness and adequacy both to its social role and to the labor market. In addition, it was necessary to clarify the context in which the study of students' attitudes would be analyzed and the results evaluated. Attitudes have become an important area of research, assuming that they largely precede an individual's behavior toward an object or concept, and therefore can be used as important predictors of behavior. The answers of the Bulgarian students in the survey and the subsequent focus groups provide interesting material for reflection, given the contradictions that are revealed. A reinterpretation of what universities were doing not only at the start of the pandemic, but also before is required. It seems that the approach that should be sought does not match anything we are familiar with, including the experience of the "lockdown" period. The high degree of ambiguity and confusion in the student community should be a sign to the HE institutions that the balance has not yet been found and creativity and flexibility are needed to restore trust in academic institutions and motivation to learn.

Theoretical and practical contributions

- In-depth research in a relatively new problem area - the impact of the digital transition on education - which has long-term relevance and essential importance for the processes of formation of the future "knowledge-based society".
- A first attempt to comprehensively trace the development trends in education policies at European and national level, in the light of digital changes and the series of crises in recent years - in-depth and critical exposition of the entire range of normative documents (regulations, laws, ordinances, etc.), resolutions, guidelines and recommendations, which provide a panoramic view of the direction in which education is developing in Europe and Bulgaria, as well as public demands for it in the light of one of the most significant contemporary transition – the digital one; a review and analysis of the overall context of the educational environment and policies concerning all educational stages with a gradual focus on higher education and the changes imposed by the digital transition.
- The interrelationships between the policies and management of education, including the management processes of digitization in education, at supra-national, national and

institutional levels, as well as the specific roles and responsibilities of each of these levels, are drawn.

- A medium-term approach to changes in higher education regarding digitization is argued, justifying the need for coherence between activities, values, methods, principles, expectations and results in order to achieve sustainable and positive change in the institution and to ensure quality of training.
- The significance of the research in a practical plan consists in the wide range of original and innovative recommendations based on the conclusions drawn from the overall research and the specific study of student attitudes. They are in several directions - 1) to decision-makers at the national level, 2) to the management of educational institutions and 3) to the target group of teachers, professors and students.

Setting educational policy is part of the social choice that each country makes, depending on what it wants and thinks it can achieve. The results of education (and its reforms) are not visible in the short term. That is why policies should be carefully considered by all stakeholders and their implementation should be subject to constant monitoring and analysis.