Future Transformations in Teacher Education in Serbia from Three Different Angles

Branka Radulović

University of Novi Sad, Novi Sad, Serbia
E-mail: branka.radulovic@df.uns.ac.rs
ORCID: http://orcid.org/0000-0003-2377-4773

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Abstract
Investment in human capital is becoming an increasingly important issue for the economic growth of any country. Accordingly, the teacher takes on the role of a reformer because he directly influences the formation of young people as future experts. However, unlike technological and thus social changes, educational changes happen slowly because they need to be viewed from the perspective of creators (higher education institution – HEI), collaborators (mentor teacher in schools) and consumers (students – future teachers). Therefore, the goal of this research is oriented towards looking at the directions of future transformations of teacher education in Serbia, precisely from these three angles. A total of 32 respondents participated in the research (10 teachers from HEI, 9 mentor teachers, and 13 future teachers and beginning teachers-mentee). A questionnaire consisting of 10 questions was used to obtain the results. The results show that all respondents identified the main challenges in the current system of education for future teachers as related to motivation for the teaching profession, a clear education strategy for the coming period, and social status. Key areas that need to be transformed in the next decade are related to increasing mentee competencies required by the complexity of the 21st century classroom. More specifically, respondents stated that the areas should not undergo a complete transformation, but rather that there should be an increased focus on the specific demands of modern society. Accordingly, the focus should be on student-centered approaches, inclusive, enhanced by technology, with an emphasis on interdisciplinary. The research identified a number of challenges that should be considered before embarking on the transformation of future teacher education. Some of the challenges are: insufficient investment in educational infrastructure, discrepancies in curricula, and sluggishness in following modern trends and innovations. Therefore, the first step proposed is defining professional standards and qualification standards that would be based on the empirical results of all previous reforms, in order to take advantage of the inertia of the system to systematically introduce changes and systematically prepare teachers for better and more inclusive support for mentee.
Keywords: future transformations in teacher education, future teachers, teachers, problem in teacher education, ways of future teacher education transformation, Serbia.

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Будущие преобразования в педагогическом образовании Сербии: три точки зрения

Бранка Радулович

Университет Нови-Сада, Нови-Сад, Сербия
E-mail: branka.radulovic@df.uns.ac.rs
ORCID: http://orcid.org/0000-0003-2377-4773

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Аннотация
Инвестиции в человеческий капитал становятся все более важными для экономического роста любой страны. В связи с этим учитель – это ещё и реформатор, поскольку он непосредственно влияет на формирование молодых людей как будущих специалистов. Однако, в отличие от технологических и социальных изменений, трансформации в сфере образования происходят медленно. При этом их необходимо оценивать с точки зрения инициаторов (высшее учебное заведение – вуз), сотрудников (учителя-наставники в образовательной организации) и потребителей (студенты – будущие учителя). Цель данного исследования – рассмотреть направления будущих преобразований педагогического образования в Сербии с этих трех позиций. Всего в исследовании приняли участие 32 респондента: 10 преподавателей вузов, 9 учителей-наставников и 13 будущих и начинающих учителей, находящихся под руководством наставников. Для получения результатов была использована анкета, состоящая из 10 вопросов. Респонденты выделили такие проблемы в существующей системе подготовки будущих учителей: недостаточная мотивация к профессии учителя, отсутствие четкой образовательной стратегии на предстоящий период, низкий социальный статус педагога. Ключевая область, которую необходимо преобразовать в следующем десятилетии, – повышение компетентности молодых учителей, что обусловлено усложнением работы в современной школе. При этом, по мнению респондентов, деятельность учителя не должна подвергаться кардинальной, полной трансформации, но необходимо уделять больше внимания конкретным требованиям современного общества. То есть прежде всего следует сконцентрироваться на личностно-ориентированном подходе в обучении, на инклюзивном образовании, обогащенном современными технологиями, на междисциплинарности. Исследование выявило ряд проблем, которые следует решить, прежде чем менять систему образования будущих учителей: недостаточные инвестиции в образовательную инфраструктуру, расхождения в учебных планах, медлительность в следовании современным тенденциям и инновациям. В силу этого первым шагом по преобразованию системы должно стать утверждение профессиональных стандартов и квалификационных норм, учитывающих эмпирические результаты всех предыдущих реформ в образовании. Такая основа позволит воспользоваться инерцией системы, но при этом регулярно вносить изменения и совершенствовать подготовку учителей к работе в постоянно меняющихся условиях современного мира.
Ключевые слова: будущие преобразования педагогического образования, студенты-будущие учителя, преподаватели, проблемы педагогического образования, пути трансформации педагогического образования, Сербия.

Introduction

Education represents the most important resource of social development, but at the same time it depends on the society whose changes it causes. Also, education is the most important factor that directly affects the development of a person as a person, therefore it is important to pay attention to the education of teaching staff (Latypova & Baklashova, 2024; Marković, 2004; Sedov, 2018). More precisely, the education system is a key element of the life and development infrastructure of every individual, society and state, because its overall influence shapes the quality and results of the construction and use of

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all other systems, resources and quality of life (Strategy of the Ministry of Education and Science of the Government of the Republic of Serbia, 2012). For this reason, education, and consequently the education of future teachers, changed in accordance with social events (i.e. the desired direction of state development) and the development of cognitive theories. Therefore, the education of future teachers at the global level has undergone several significant transformations (Rao, 2024; Valeeva et al., 2024). However, ever since the Bologna system, the globalization of education and the introduction of the same global changes into different educational systems, thus making them the same, have been sought. It can be useful if globalization is understood as defined in the Russian Sociological Encyclopedia; as "a constantly developing process of interlinking various factors of international importance in the social activity of states" (Marković, 2004, p. 33). It is precisely the introduction of these different factors that gives the possibility of comparing educational systems and seeking recommendations for further improvements. Reforms based in this way should result in better teaching quality, greater innovation, accessibility and profitability, primarily in universities that educate teaching staff and directly affect the creation of quality teaching staff. Accordingly, in order to constantly improve the education system, the education system and teacher education should be "a state of flux where permanent transformation becomes the norm" (Lund & Eriksen, 2016, p. 69). However, "innovations and reforms in teacher education need to be rethought in line with current and future contexts" (Valeeva & Menter, 2021, p. 193).

Educational changes in Serbia in the last four decades

At the beginning of the 90s of the last century, changes in educational policies focused on the omission of Marxism and information about Josip Broz Tito, but also on the creation of the first private faculties (Šuvaković, 2019). The period from 2000-2005 was characterized by a greater introduction of the neoliberal platform into the education system. Changes such as the introduction of the first private high schools led to the phase of introducing the Bologna system, for which the Serbian education system was not fully prepared (Šuvaković, 2019). Regardless of the incomplete readiness for the Bologna system, all educational changes, from 2000 to 2009, proclaimed fairer education and striving for higher quality work of teachers and schools (Avramović, 2010). However, the introduced changes primarily brought a greater number of administrative duties to teachers, while their autonomy remained limited to work in the classroom (Pantić & Čekić Marković, 2012). According to Avramović (2010, p. 35) "issues of national interest in education remain unresolved, as well as answer to the questions of what kind of education we want and what kind of society we want to build". In an effort to answer these questions and maintain the aspiration to increase the quality of work of teachers and schools through greater active participation primarily of teachers in building their own competences and assuming responsibility for improving their own work, in 2010 "Competence standards for the profession of teachers and their professional development" were adopted, and in 2012 "Strategy for the development of education in Serbia until 2020" (Strategy of the Ministry of Education and Science of the Government of the Republic of Serbia, 2012). The Strategy defined three basic models of initial teacher education: simultaneous, consecutive and transitional (Gajić et al., 2023). According to this Strategy (Strategy of the Ministry of Education and Science of the Government of the Republic of Serbia, 2012), all future teachers (whether they study at teaching or non-teaching faculties such as technical and technological) must pass subjects in the fields of pedagogy, psychology, methodology, and school practice in the amount of at least 36 ECTS. The difference between the defined three models is that the first (simultaneous) refers to teaching faculties, which obligates them to include the necessary subjects in their

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curricula; while the second and third models refer to non-teaching faculties (Gajić et al., 2023). In this way, through the defined Strategy and standards, an effort was made to ensure the minimum necessary knowledge, skills and abilities to work in the educational system. Also, the goal of the introduced documents is to enable (future) teachers to develop reflective competencies both in themselves and in students, as well as to encourage critical curiosity. The importance of reflexivity among teachers is reflected in their ability to reorganize their approaches to teaching in order to encourage faster development of students in all domains (cognitive, affective and psycho-motor) while at the same time their own professional development (Španović & Vučković, 2017). However, in recent years there has been a noticeable problem of students' lack of interest in teaching. This problem is particularly visible in the fields of Mathematics, Physics and English (Gajić et al., 2023). The reasons for the existence of this problem are numerous, from the social status of teachers, which is closely related to the economic status, to the still present gap between the university and school environments. Although the sensitivity and initiative to this problem is noticeable through a more elastic mechanism of cooperation between universities and schools, there is still room for improvement of the teacher education system. As an example of good practice, the Faculty of Sciences of the University of Novi Sad formalized the selection of mentor teachers, which emphasized the importance of the teacher's personal characteristics and personality traits (Radulović et al., 2022). Taking into account the characteristics of the mentor teacher should have a positive effect on better communication between the mentor and the future teacher (mentee), better cooperation and reflective development of both teachers; which will have a direct positive effect on student engagement in the teaching process, motivation and general climate in the class, and ultimately in society. In addition to this independent step forward, the "Strategy for the development of education and upbringing in the Republic of Serbia until 2030" (Strategy of the Ministry of Education, Science and technological development of the Government of the Republic of Serbia, 2021) summarized the previous results and made recommendations for the future.

Namely, ex-post analyzes of the realization of the "Strategy for the development of education and upbringing in the Republic of Serbia until 2030" (Strategy of the Ministry of Education, Science and technological development of the Government of the Republic of Serbia, 2021) showed that progress was made in terms of revising educational programs with the aim of achieving greater functionality, modernity and social relevance, which resulted in the introduction of various optional subjects; a stronger connection with the local community was achieved; the formation of a student parliament was encouraged; etc. (Strategy 2030, 2021). However, in terms of teacher education, there were no measures to attract the best candidates to teachers' faculties, as well as additional scholarships for students who are being trained to become teachers where deficit problems have been recognized. Therefore, the "Strategy for the development of education and upbringing in the Republic of Serbia until 2030" (Strategy of the Ministry of Education, Science and technological development of the Government of the Republic of Serbia, 2021, p. 58) defines two general objectives: "1: Increased quality of teaching and learning, equity and accessibility of pre-university education and upbringing and strengthened educational function of educational institutions. 2: Increased quality and improved relevance and equity of higher education."

Within the first objective, a specific objective *1.5 Improved quality of initial teacher education and preschool education* has been defined within which the need for "improving the quality of study programs for initial teacher education" as well as "improving the concept of internship and introduction to the teaching profession" is stated as a measure of achieving the objective (Strategy of the Ministry of Education, Science and technological

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development of the Government of the Republic of Serbia, 2021, p. 74). These measures aim to emphasize the importance of school practice, as well as monitoring social changes in order to prepare future teachers as thoroughly as possible to work with students. Better preparation of future teachers for work will reduce the "shock" during the transition from the university to the school environment, as well as the faster development of the teacher's professional identity. Also, within the framework of this specific goal, attention will be paid to rewarding teaching students (especially deficient fields) in the form of scholarships, but also for the best master's theses in education; in order for a greater number of future students to opt for teaching faculties.

The second general goal is more oriented towards empowering staff in order to increase performance in national and international tests and comparisons, as well as the introduction of digital platforms. Unfortunately, due to the COVID-19 pandemic, practically all faculties have already introduced certain digital platforms, but their use has not been maintained after the pandemic. Therefore, the "Strategy for the development of education and upbringing in the Republic of Serbia until 2030" (Strategy of the Ministry of Education, Science and technological development of the Government of the Republic of Serbia, 2021, p. 49) stated the need for teachers to be "digitally competent and to apply innovative pedagogical approaches that integrate ICT into the educational process."

In accordance with the stated needs for increasing the quality of teachers' competencies, there is a tendency to increase the participation of subjects from pedagogical-psychological-methodical areas from 36 ESPB to 60 ESPB in order to further improve the training of teachers for teaching. This aspiration is particularly viewed from the point of view of the need caused by the increasing presence of information and communication technologies and innovations in education (primarily AI), which significantly change the way of communication between all participants in the teaching process, the way of teaching itself, as well as the way of developing critical thinking and scientific reasoning. As innovations directly related to the natural sciences were introduced, we wanted to examine how methodologists at teachers' faculties (primarily oriented towards natural and mathematical sciences), mentor teachers, but also future teachers and beginning teachers (mentees) see the challenges in the current system of education for future teachers, as well as the direction of future transformations.

Methodology

Sample

Due to the importance of the topic, the research was conceived as a qualitative action research based on the respondents' reflection. Since we wanted to look at the issue of current challenges, but also key areas that need to be transformed in the education of future teachers, as well as obstacles and ways to solve them; the research included three groups of respondents.

The first group consisted of teachers, more precisely methodologists at faculties who directly create future teachers through initial education, but also participate in the conception of the initial education program. The perception of the methodologist wanted to be presented as the perception of the creator of the current educational system, but also of future changes. Therefore, the reason for including this group of respondents is twofold. On the one hand, since they have access to and follow world and contemporary research, we wanted to look at their perception of changes, as well as their willingness to introduce changes into their curricula. On the other hand, since they are methodologists who train future teachers in the field of natural and mathematical sciences, we wanted to see how they see the changes caused by innovations such as AI, which are practically a direct result of natural, technical and mathematical sciences.

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The second group of respondents consisted of mentor teachers. Mentor teachers are directly involved in training future teachers and beginning teachers (mentees) to work with students. According to their dual role in the educational system, the reason for their inclusion is also dual. Namely, it is precisely through their answers as practitioners, who are not so tied to modern scientific research and the development of theoretical frameworks, that practical problems can be seen and higher education teaching can be evaluated. So, in his work with students, the mentor teacher will apply teaching approaches that have proven to be reliable and close in his practice, thus reflecting his beliefs, competences and personal philosophy of teaching (Ntim, 2017). However, through his work with the mentee, the mentor has the opportunity to review and revise his beliefs and change the way of teaching by taking over the innovations from the mentee. At the same time, the mentor will give the mentee a more immediate insight through the practical application of more theoretical knowledge brought from the university. Therefore, the mentor's perception was considered as a view from the inside, but as a "collaborator" in carrying out the current modification of the educational system.

The third group of respondents consisted of mentees (future teachers and beginning teachers). The importance of this group of respondents is reflected in seeing the problem from the inside as a "consumer" view of the current education system.

The research included 32 respondents, 10 of whom are methodologists from the two largest universities in Serbia (University of Belgrade and University of Novi Sad), 9 mentors and 13 mentees. The main representative opinions are presented in the text. The research was conducted in the period from February to May 2025.

Observing the distribution of the sample according to the gender of the respondents, the research included 32 females and 7 males (Table 1).

Table 1. *Distribution of the sample by gender and groups*

	HEI teacher	*Mentor teacher*	*Mentee*
female	8	6	11
male	2	3	2

A higher representation of women was expected according to the statements of numerous researchers (Basten, 1997; Tašner et al., 2017) that education is considered a female profession.

Instrument

The research used a questionnaire whose main part consisted of 10 questions (8 open and 2 closed). In accordance with ethical principles, the questionnaires were coded with an appropriate acronym and number (teachers from HEI as HEI-1; mentor teacher as MT-1; and future teacher and novice teacher or mentee as M-1).

Results

The perceived main challenges in the current education system of future teachers of all three groups of respondents can be grouped into two parts: 1) economic, i.e. socio-economic problem and 2) problem of expertise. The economic status and the resulting social status of teachers is recognized, because salaries in education according to the data of the Republic Institute of Statistics, although there is some upward trend, are around the average salary in Serbia (Figure 1). However, in comparison with the highest paid jobs related to Computer programming, consulting and related activities, an increasingly significant difference is observed, especially in the last few years. Also, the problem of

"low investment in education" (HEI1) and the resulting poor infrastructure of educational institutions (HEI4 and HEI9) was recognized, as well as the absence of *"stimulating scholarships and paid internships during studies"* (HEI9).

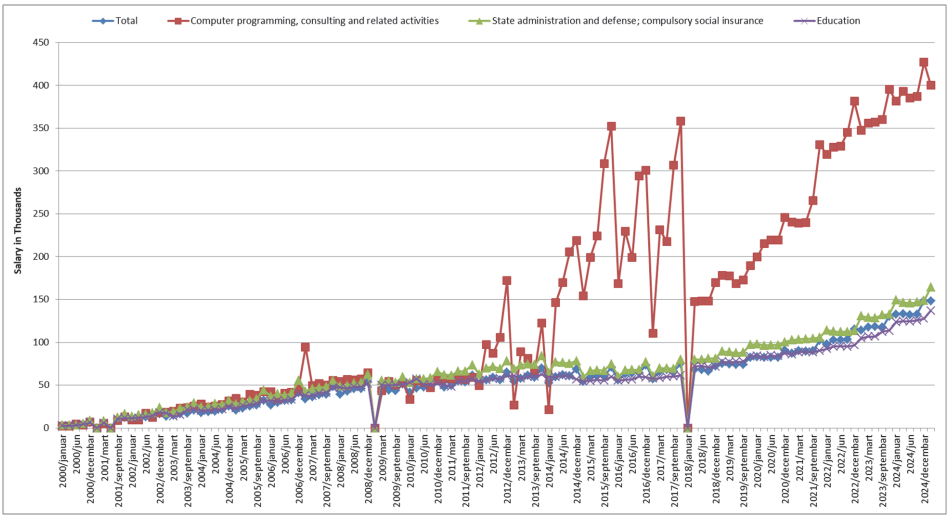

Figure 1. *Average salaries in the Republic of Serbia in the last 25 years*

The problem of expertise highlights the need for more hours of school practice, *„realistic insight into school practice"* (MT1), and teaching skills, which is presented through the following statements:

"I believe that future teachers are not sufficiently trained to work with students with special educational needs, which creates difficulties for them when they start working in schools. Also, during the initial education of future teachers at the faculty, interdisciplinarity in teaching is not sufficiently represented, which later makes it difficult to apply this approach in teaching practice. Teacher education is mainly focused on subject content, and less on an interdisciplinary approach that would better suit modern education" (HEI8);

"Insufficient number of teaching practice hours, as well as insufficient application of an integrated approach in the implementation of teaching" (HEI5);

"The problem is the changes in the learning environment, which the teacher must keep up with, and the constant need to adapt the way they work with students to these changes. In the sense that teacher education curricula and programs cannot change as quickly as changes in the environment (technological, but also social) occur" (HEI3).

Similarly, mentor teachers stated:

"As a physics teacher, I often see that young colleagues do not have enough experience in laboratory work, in class management, or in adapting teaching to different types of students" (MT2);

"The biggest challenge is that the system prepares teachers as they will work in ideal conditions, with interested students and adequate resources. In practice, even when working with smart kids – as is often the case in grammar school – motivation can be weak, attention spans short, and the pressure of social media and external factors great" (MT5);

"The biggest challenge is that the teacher education system does not sufficiently encourage creativity, initiative, and critical thinking. It relies too much on the reproduction of knowledge, and too little on the application of research approaches and adapting teaching

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to the real needs of students. Working with gifted children requires an individual approach and great pedagogical skill" (MT3);

The mentees also stated similarly, who additionally recognized the problem of conflict resolution (especial with parents - M4 and M9) and administration, which is closely related to experience and practice:

"Although a lot of theoretical work is taught at the university for teaching itself, practice still shows differently that the work methods taught at the university are not enough to manage the class and resolve the conflict itself" (M3);

However, some mentees were more critical of the faculties and stated that the cause of the challenges in the current education system is precisely the faculty through:

– *"Reducing the criteria for evaluating the work of future teachers*
– *Poor infrastructure of higher education institutions*
– *Non-innovation of curricula and work programs*
– *Insufficient practice*" (M12).

Therefore, according to the perceived challenges, the most important skills of future teachers are listed as social skills with elements of greater ability to navigate in new environments, the need for greater practice is emphasized *("teamwork, cooperation and leadership"* MT6 and MT7) and communication skills followed by digital skills *("because today technology is inevitable in education"* M7), and *"because, the teacher will teach the students through conversation which should be in line with today's times"* (M6).

In other words, following on from the development of the most important skills, the key areas that need to be transformed in the next decade, mentor teachers see in strengthening school practice, but also the perception of the teacher's role in the class:

"First, it is necessary to improve practical teaching and involve students in work in real school conditions from the first year of study. Secondly, interdisciplinary approaches should be introduced more intensively, especially in science teaching. And third, we must accept that the teacher is no longer the sole source of knowledge, but a moderator and guide in the learning process" (MT2);

"We must transform the attitude towards the teacher as a "transmitter of knowledge" - that role is no longer sufficient. Instead, the teacher must become a moderator, mentor, and supporter in the learning process. For this, it is necessary to strengthen preparation in teaching methodology, digital pedagogy and other fields" (MT5);

Similar statements are made by mentees who recognize the need for *"practical application of acquired knowledge"* (M1) through empowerment in terms of the skill of *"combining different teaching approaches"* (M1) for the sake of greater *"acquiring a 'feel' for the job"* (M2). However, they add concerns about insufficient possession of the necessary competencies: *"It is certainly an area of information technology, given that technologies are advancing, and teachers and students have a problem with developing their abilities in that area"* (M8), but also of their position in society *"The areas that need to be transformed, in my opinion, relate primarily to respect for the personality of teachers. I believe that teachers have lost their authority, and that it will be extremely difficult to regain it"* (M11).

However, HEI teachers are of the opinion that *"the field should not undergo a complete transformation, but rather that there should be an increased focus on the integration of digital technologies, the development of inclusive education (but certainly not without pedagogical and psychological support), the encouragement of critical thinking, cooperation and teamwork throughout higher education teaching"* (HEI7). So, it is necessary to modify the current curriculum in such a way as to *"enhance student competencies required by the complexity of the 21st century classroom, as well as promote student-centered approaches"* (HEI10).

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Digital technologies are becoming an increasingly important factor in education in general, including in shaping the curriculum for future teachers. In addition to the *"great potential to improve the teaching process"* (M2) through *"simulations, virtual experiments and online quizzes"* (MT2), *"digital technologies should not be an end but a means"* (MT5). Since *"digital literacy should be the foundation of every curriculum, not just an add-on"* (MT4), pedagogical innovations that will be significant in future teacher education are primarily related to digital skills.

However, whole series caused by the recognition of an increasing number of factors that characterize the modern classroom are also mentioned:

"– Interactive and digital teaching - using virtual classrooms, simulations, virtual reality in education.

– Project-based and inquiry-based learning – encouraging future teachers to learn through solving real-world problems and working on long-term projects.

– Interdisciplinary approach – better connection between subjects and integration of different scientific fields into teaching.

– Game-Based Learning – the use of educational games in teaching to increase student motivation and engagement.

– Hybrid and online learning – a combination of traditional and digital teaching.

– Inclusive pedagogy – developing methods and strategies for working with students with diverse needs.

– Social-Emotional Learning (SEL) – developing empathy, communication skills, and emotional intelligence in teachers and students" (HEI8).

The biggest obstacles in the transformation of the education of future teachers are related to *"insufficient investment in educational infrastructure"* (HEI7) because *"limited access to modern tools can make it difficult to modernize teaching"* (M10). According to the different possibilities of investing in the educational infrastructure, there is a discrepancy both in the technical and technological equipment of schools and universities, as well as in the curricula. Changes at one educational level are not always followed by corresponding reactions and changes at other levels. This increases the aforementioned discrepancies and indicates the sluggishness of the system for changes, whether they refer to following modern trends and innovations or fundamentally changing the direction of educational development (*"The biggest problem in the transformation of our system is conservatism and cumbersomeness"* (M5)). It follows from this that the first obstacle is *"traditionalism - a deeply rooted belief that teaching is as good as the student can repeat the material"* (MT3), i.e. that changes can be understood formally – *"one of the biggest obstacles is formalism in the system - too much attention is paid to paperwork and "reports", and too little to substantive changes"* (MT4).

Therefore, it is important to break down the transformations into realistically achievable and carefully constructed steps. Therefore, the respondents stated that the first step would be towards greater harmonization of the curriculum and providing greater support to mentees with the aim of *"reducing the gap between the university and school environment"* (HEI3), but also to mentors through *"reform of professional training programs"* (MT6). Therefore, *"strengthening mentoring and supporting future teachers"* (HEI6) through *"introducing more practice"* (HEI6) was recognized as the most relevant first step in future reform. Also, the *"introduction of profession standards and qualification standards"* (HEI2) based on the empirical values of all previous reforms would contribute to the reduction of discrepancies and greater opportunities for mentees. Of course, this requires the creation of a *"detailed and long-term transformation plan involving multiple entities, responsible bodies, the Ministry, etc."* (HEI9) with greater financial support.

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Discussion

Accepting the premise that education is a key resource for the development of society, answers have been sought for decades on how to improve the education system (Baklashova & Kazakov, 2016; McNicholl & Blake, 2013; Sibgatullina et al., 2020; Valeeva et al., 2021) in order to positively influence the development of society. However, the educational system is extremely complex and thus characterized by a large number of variables and potential factors. Therefore, this research focused on the education of future teachers and the potential directions of its future transformations. The education of future teachers was taken into consideration because of its direct impact on the education of young people and their empowerment in terms of developing critical thinking and preparation for the real world, as well as creating and using new innovations. According to Marković (2004), it is precisely the teachers who, in the conditions of globalization, facilitate the understanding and acceptance of scientific, technical and technological achievements and their application in local conditions. Therefore, due to the need to take a more complete look at this sensitive and important issue, the qualitative research included HEI teachers (methodologists), mentor teachers and mentees (future teachers and beginning teachers). So, we wanted to look at this complex issue from the point of view of the creators of (at least part of) changes in teacher education, collaborators in the implementation of those changes, and their consumers. This multi-faceted and multi-layered observation of the problem aimed to more clearly see the direction of its solution.

For this reason, we started by examining the respondents' perception of the main challenges in the current education system for future teachers. The main challenges are summarized in two areas: one is related to the socio-economic status of teachers, and the other is related to school practice and teaching skills. Although future teachers acquire solid theoretical knowledge in the field of pedagogy and subject expertise, this knowledge often remains abstract and insufficiently applicable in concrete classroom conditions. That is why the issue of increasing school practice was cited as one of the most important. Exactly the same problem has been reported by other researches. Namely, Gafurov and Valeeva (2021) stated that future teachers often receive more theoretical than practical knowledge and skills. However, Valeeva and Gafurov (2017, p. 12) state that "the main goal of school practice is to help future teachers gain insight into the teaching profession and to form a complete picture of what it is like to perform professional duties." A clearer insight into the teaching profession, as well as the demands that that profession places on future teachers, will lead to a faster development of professional identity (Mifsud, 2018). Bearing in mind the importance of student internships (for all students), faculties in Serbia adopted the Regulations on professional internships at the end of 2024, in accordance with the Law on Higher Education, which significantly increased the number of practice courses. For example, at the Faculty of Sciences of the University of Novi Sad, according to the accreditation for the 2024/2025 school year, future teachers will have school practice already from the second year of bachelor studies (a total of four subjects of school practice), while previously school practice was in the fourth year of bachelor studies (a total of two subjects of school practice). With this introduction of a larger number of subjects, and therefore school practice classes, it is expected that the gap between the university and school environment will be reduced, and therefore future teachers will be better prepared to work with students with greater ability to apply inclusive approaches to teaching so that all students have the opportunity to reach their cognitive maximums, and navigate more effectively in different pedagogical situations. Consequently, the focus of future transformations should be based on the symbiosis of curriculum, pedagogy and evaluation of previous changes (Lenoir, 2011) with an emphasis on cooperation and reflection (Ertmer, 2003) as key components of teacher development.

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However, it is important to see the changes in the broader context of the development of society and the individual. Thus, future changes must respond to the needs of the new information age and capitalism (Angeli, 2005; Archambault et al., 2010; Darling-Hammond, 2009; Ngao et al., 2022; Revyakina, 2021), and therefore (future) teachers must develop digital competencies (Pesha, 2022) to a greater extent and be able to follow new trends in the introduction of (especially digital) innovations in their teaching. The speed of social changes causes major changes in the labor market (new jobs appear that did not exist before), therefore the (future) teacher should be able not only to transfer knowledge to students but to enable them to "master the tools of knowledge" (Marković, 2004, p. 21). It also causes changes in the behavior and perception of university teachers because universities must be learning organizations that actively follow and participate in the development of the civilization of the 21st century - "learning civilization" (Marković, 2004). So, it is necessary to integrate and use technologies in your teaching (at all levels of education), but with the aim of encouraging the domains of student and teacher development, and not making the simple application of technology an end in itself. Also, it is necessary to design the use of technology so that teachers "control information devices, and not that people are victims of their own creativity" (Marković, 2004, p. 69), which is a particularly sensitive issue in the application of artificial intelligence (Adams et al., 2023; Luo, 2024; Porayska-Pomsta et al., 2023; Schiff, 2022).

However, any transformation process is always faced with numerous obstacles. Therefore, respondents cited the need for significant investment in educational infrastructure, conservatism, traditionalism and slowness of the system as a potential obstacle. While the perceived first steps in overcoming the mentioned obstacles are aimed at overcoming the gap between the university and school environment and defining a *"detailed and long-term transformation plan that includes several subjects, responsible bodies, the Ministry, etc."* (HEI9) with greater financial support for the realization of the necessary steps. These steps must include *"preparing teachers for new teaching methods that include digital and hybrid formats"* (MT9), i.e. *"developing digital literacy"* (MT8). Therefore, perceived incompetence (*"future teachers are not sufficiently trained in the use of digital tools"* (M13)) should be the starting point for future changes.

Also, it is necessary to consider reformed educational systems close to us, such as the Russian educational system, and follow their direction. The exceptional quality of the Russian education system is reflected in the students' gold medals from various international competitions and Olympiads (e.g. International Junior Science Olympiad). They can therefore serve as a valuable example of good practice.

Conclusion

Understanding education (of teachers) as the most important resource of society, for the sake of the progress of the state, expects universities to be innovative, accessible and cost-effective in terms of their competitiveness, relevance and ability to follow technological trends and social demands (Guàrdia et al., 2021), and thus universities must be exposed to constant transformations. These transformations are on the one hand limited and defined by various regulations (laws, strategies and standards), and on the other hand by the needs of society. Therefore, the goal of this research was to reflect on current problems in teacher education. Methodologists, mentor teachers and future teachers and beginning teachers participated in the research in order to look at the problem of teacher education from different perspectives.

The results showed the agreement of the respondents on all issues, starting from the perceived current challenges in the form of an inadequate socio-economic status of teachers and the need for greater school practice to the directions of future transformations,

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potential obstacles and the first steps in solving them. However, the agreement of the respondents suggests the need to more clearly define and systematically solve (at least some) problems in the education of future teachers. One of the directions is certainly the introduction of a greater number of hours of school practice (which is currently done), but also the definition of profession standards and qualification standards. However, the implementation of "any systemic changes in education presupposes the value coordination of various actors" (Gafurov & Valeeva, 2021, p. 191) who should contribute to solving issues of national interest in global education and defining "what kind of education we want and what kind of society we want to build" (Avramović, 2010, p. 35).

Limitations

The question of education of future teachers was looked at from three angles; however, according to the complexity of the question, subsequent research will need to include decision makers as an important group of respondents. Also, the two largest universities in Serbia were included in this research, but for subsequent research, it is desirable to increase the coverage of methodologists, as well as other teachers who participate in the education of mentees, which will increase the sample size and realize the possibility of applying quantitative research.

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