



Research Article Teacher Academic Training Systems in Greece and Serbia

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Abstract: This study examines the teacher preparation paradigms of Serbia and Greece, two countries with similar histories and religions but different educational ideologies influenced by their social and cultural backgrounds. The study aims to determine the effect of various settings on teacher preparation, with a particular emphasis on pedagogical approaches and curriculum designs. Using a mixed-methods approach, the study assesses how each system affects student results and teacher effectiveness by combining quantitative data from educational tests like PISA with qualitative views from educators and policymakers. Concerns have been raised regarding the influence of Greece's reliance on a centralized curriculum on developing critical thinking and practical application abilities in aspiring teachers. On the other hand, Serbia's adaptable strategy incorporates contemporary teaching approaches, boosting students' capacity for analysis and practical problem-solving. The report emphasizes the value of stakeholder participation, highlighting Serbia's successful interactions with parents and educational institutions, which help create a climate conducive to educational change. The study emphasizes the integration of cutting-edge pedagogical approaches and standardized assessments, underscoring the necessity for systemic transformation in teacher training processes to satisfy contemporary educational demands. It also asks for fair resource distribution and sufficient funding to enable enhanced teaching approaches that comply with European standards. Ultimately, our research aims to promote international understanding and cooperation, increase teacher preparation programs, and raise education standards globally.

Keywords: Teacher preparation; academic curriculum; pedagogical approaches; Greece; Serbia

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1. Introduction

The debate over teacher preparation programs has become much more urgent and wellknown in recent years, especially in light of ongoing international educational reforms that aim to address a variety of issues that both teachers and students must deal with (Contopidis et al., 2016). Gaining an understanding of the complex subtleties of these systems can be crucial to understanding their effectiveness and adaptation to various institutional and cultural contexts. This is important in a world where educational equity and quality are becoming more and more valued. This study, which has received a great deal of support and interest, looks at the teacher training paradigms in Greece and Serbia-two nations with similar histories but different educational philosophies and practices, each shaped by its own sociopolitical and cultural contexts (Tzortzi & Papakitsos, 2022). The research will demonstrate the connections between the curriculum frameworks, pedagogical approaches, and social and political environments of each nation, all of which have an impact on the way in which teachers are professionally trained. This kind of study is not only intellectual; it has significant ramifications for educators and policymakers who aim to improve student outcomes in their educational systems by increasing teacher effectiveness (González-Campos et al., 2022). The research intends to significantly contribute to the global discussion on enhancing teacher preparation programs while honoring regional educational traditions and requirements and recognizing that every environment has advantages and disadvantages



through a methodical review. This research aims to promote international understanding and cooperation, improve teacher preparation programs, and raise educational standards worldwide. The imperative requirement for mutual understanding and cooperation highlights the significance of unity and cooperation in education.

Fostering educators who can adjust to varied classroom situations and enhance student learning outcomes requires practical teacher training (Heilporn et al., 2021). Their rigorous preparation greatly influences Teachers' professional behavior, primarily from organized pedagogical programs. This includes their passion for teaching, ability to engage students effectively, and ability to bounce back from potential career setbacks. According to research, instructors who receive thorough training move beyond their initial reasons for entering the field to acquire good job attitudes, underscoring the importance of continuing professional development for teachers as they advance in their careers (Rutten, 2020). Strong teacher preparation can improve professional efficacy despite different levels of motivational drive, as demonstrated in Greece by a substantial relationship between education paths and intrinsic motivation (Marušić-Jablanović et al., 2018). These results emphasize the importance of choosing competent applicants for teaching positions and investing in their ongoing development through quality training initiatives. On the other hand, the results in Serbia demonstrate that the traditional training approach had no meaningful impact and that teachers trained in the previous system frequently struggle to develop positive job attitudes, resulting in teacher burnout and dissatisfaction with their positions.

In order to satisfy the needs of modern education and increase teacher retention rates, systematic reform in teacher preparation procedures must be implemented (Marušić-Jablanović et al., 2018). To ensure that teachers are prepared to maximize their influence on student learning and support the educational system, the caliber and structure of teacher preparation programs are crucial in determining their effectiveness, professional development pathways, and overall job satisfaction. Understanding the subtle differences between the teacher training programs in Greece and Serbia is essential to understanding educational practices and their effect on students' outcomes. Researchers can determine the efficacy of various pedagogical strategies and institutional support mechanisms in influencing teacher development and enhancing educational frameworks by examining these two unique nations attentively. For example, the PISA 2009 results show that Serbia has significantly improved its reading literacy, demonstrating the contextual factors like increased student enthusiasm and official system support influencing the educational outcomes (Pavlovic & Baucal, 2011). This improvement is not merely a surface-level adjustment; rather, it represents more profound changes in the methods of instruction and the distribution of resources in favor of reading and learning. Additionally, analyzing the professional paths of different types of teachers - realists, idealists, and opportunists - discloses notable differences in job satisfaction and efficacy, especially in the divergent educational contexts in the two nations (Marušić, 2016). These differences can provide essential details about how various systems affect teachers' professional development and motivation.

The present comparison analysis contributes to our comprehension of regional educational practices. It guides policy reform measures to improve teacher training programs and elevate educational standards in Serbia and Greece. These advancements could result in a teaching staff that is more equipped to adjust to the shifting needs of society and students in both countries, making the comparison not only pertinent but also extremely important for developing future educational policies. Formulating a structured set of research questions is crucial to investigating the teacher training systems in Greece and Serbia. It will successfully direct the inquiry and guarantee a comprehensive examination of the subject. These study topics will center on a few essential components to comprehending the complexities of the teacher preparation environment. In particular, they will examine the change of each nation's educational policies over time and how they have influenced and aligned with modern educational objectives. The questions will also examine the differences and similarities of teacher preparation programs in the two countries, focusing on each program and the abilities and information given to teachers they need to succeed in respective learning settings. The investigation will center on assessing how each system affects teacher effectiveness and the ensuing student results, providing insight into the broader implications for the quality of education.

The study will take a mixed-methods approach, utilizing qualitative and quantitative analyses to obtain a complete view while adhering to a comparative research technique. Indepth interviews with educators and policymakers will be used to collect qualitative data, enabling the recording of individual thoughts and experiences. Meanwhile, numerous





statistical reports and educational evaluations that offer numerical proof of patterns and results will be the source of quantitative data. An integrated approach like this is ideal for illuminating how various cultural, social, and economic settings influence teacher education systems. Additionally, to guarantee a more thorough grasp of both systems and improve the rigor of the analysis, the research will critically evaluate the body of existing literature, including international solid frameworks that address teacher competency (Coburn & Gormally, 2017).

The research examines the teacher preparation paradigms in Greece and Serbia, focusing on how different cultural, social, and economic settings influence these systems. By comparing the educational ideologies of the two countries, the study seeks to contribute to the global discussion on enhancing teacher preparation programs while respecting regional educational traditions and requirements. The ultimate goal is to promote international understanding and cooperation, improve teacher preparation programs, and raise educational standards globally. There are four research questions and objectives, which are:

1. to understand the changes of educational policies in Greece and Serbia over time and their alignment with modern educational objectives. This involves examining the historical and contemporary policy shifts and their impact on teacher training systems;

2. to identify the differences and similarities between the teacher preparation programs in Greece and Serbia. This includes analyzing how each program equips teachers with the necessary skills and knowledge to succeed in their educational settings;

3. to explore the role of stakeholder involvement, such as parents and educational institutions, in shaping effective teacher training programs. It examines the stakeholders' engagement in the two countries and its impact on educational reform;

4. to investigate the teacher preparation programs in both countries their ability to equip educators to adapt to contemporary classroom demands and foster an innovative learning environment. This involves assessing the adaptability of each system in incorporating modern teaching methodologies and promoting critical thinking and problem-solving skills among students.

These research questions and objectives are designed to comprehensively understand the teacher training systems in Greece and Serbia, highlighting areas for potential improvement and cross-national learning.

2. Materials and Methods

This study examines the teacher preparation programs in Greece and Serbia, emphasizing their effect on students' outcomes and instructors' efficacy. The research approach utilized in this study is comparative and essential for comprehending the nuances of the teacher training scene in these two nations. Using a mixed-methods approach, the study combines quantitative and qualitative studies to present a thorough understanding of the topic.

The study's qualitative component entails conducting in-depth interviews with legislators and educators. Using this technique, the researchers can record firsthand experiences and insights essential for comprehending the complex viewpoints of people closely associated with teacher preparation programs. These interviews investigate how educational policies have changed in Greece and Serbia, examining how past choices have shaped present practices and matched modern learning objectives. The qualitative information from these interviews offers a comprehensive, in-depth knowledge of the institutional and cultural frameworks that influence teacher preparation in every nation.

The study uses data from high-stakes tests like PISA, which gauge rote learning and the capacity to use that learning in challenging situations, are included in this. Such quantitative data offer numerical proof of trends and results for a thorough review of the teacher training programs in Greece and Serbia. The study guarantees a thorough and impartial analysis using quantitative and qualitative observations.

A distinguishing feature of the mixed-methods approach taken in this study is the integration of qualitative and quantitative data. Because it incorporates the individual experiences of people participating and statistical trends, this combination enables a more comprehensive knowledge of the teacher training programs. The study's primary objective, which is to shed light on how various cultural, social, and economic settings influence teacher education systems, is well-aligned with the mixed-methods methodology. The research hopes to significantly con-tribute to the global discussion on enhancing teacher preparation programs while honoring regional educational traditions and requirements using this strategy.





The research methodology's comparative component is crucial for demonstrating the parallels and discrepancies between Serbia's and Greece's teacher preparation programs. This analysis demonstrates the potential for cross-national learning that could inform and strengthen systemic improvements in both nations while also highlighting the intricacies of teacher training and systemic strengths and weaknesses. By contrasting these systems, the research reveals the complex effects of curriculum frameworks, pedagogical approaches, and socio-political circumstances on teacher training in each country.

Cross-cultural comparisons with successful international teacher training methods could offer a more comprehensive view of possible changes and modifications. This method fosters cross-border understanding and cooperation by promoting a more thorough examination of cultural circumstances and their consequences for policy change. These comparisons are not only academic; they have significant ramifications for educators and policymakers who aim to improve student outcomes in their educational systems by increasing teacher effectiveness.

The study also emphasizes the significance of using technology tools in teacher preparation. This element of empirical study could evaluate how digital literacy influences Serbian and Greek instructional practices while raising essential concerns about the usefulness and accessibility of these tools for a range of student populations. This emphasis on technology is especially pertinent in the current digital era, where educators must be prepared to navigate and use digital resources effectively in their teaching practices.

A crucial element of the research process is the engagement of stakeholders, such as educational institutions and parents. According to the report, Serbia seems to interact with these organizations more successfully, which begs the question of how cooperation promotes a favorable climate for educational change. Developing tactics that promote cooperation and assist educational advancements requires understanding the stakeholders' roles in the teacher training process.

3. Results

3.1. Historical Context of Teacher Training

National identity-shaping educational reforms and sociopolitical circumstances have significantly impacted how teacher preparation has developed. For example, significant changes were made to the educational system in Malta to ensure every kid succeeds, underscoring the close connection between teacher preparation and national goals. This link highlights how important educators are to achieving these goals, and it has sparked initiatives that have changed training standards and approaches (Sultana et al., 2019). Similarly, the Bologna Declaration compelled Serbia and other South-Eastern European nations to overhaul their higher education systems to improve curricular compatibility, align them with European norms, and enable international educator mobility (Zgaga, 2019). This reform sought to foster a common educational ethos that equips educators to flourish in a world that is becoming more interconnected and achieving technical alignment. These historical backdrops highlight the need for comprehensive teacher preparation programs that consider more expansive educational objectives. This is especially true in Greece and Serbia, where the historical interactions between education, culture, and government continue to influence contemporary practices. The way these historical frameworks have paved the way for modern educational methods demonstrates their historical relevance. Studying these changes, we can see how teacher training influenced by social and political factors continue to have a direct impact on schools in various countries. This shows that history can teach us a lot.

3.1.1. Evolution of Teacher Training Systems in Greece

Greece's system of academic teacher preparation is distinguished by its systematic, multifaceted approach, which incorporates both traditional and modern educational practices. With the passage of Law 1566/1985, which mandated training programs for primary and secondary school teachers, the Greek State first arranged teacher education and training more methodically in the second part of the 20th century. According to Kalathaki (2018), this law established Schools of Training for Primary and Secondary Teachers, which provide yearly training on didactic, scientific, and pedagogical concerns. The training system for elementary teachers, graduates of non-university level Pedagogical Academies (PAs) with shorter study durations and lower starting salaries, contrasts with that for secondary education teachers, who are university graduates with degrees in academic disciplines. This highlights the two groups' notable differences in education, professional training, and social status (Kazamias, 1985). Many teachers lack the skills necessary for effective teaching, indicating a need for





careful reconsideration of in-service training policies. In-service training, particularly for teachers in full-day schools, has been criticized for its lack of effectiveness and motivation (Saiti & Saitis, 2006). A national in-service training project has addressed the integration of ICT in education. It focuses on the pedagogic use of ICT in classroom instruction and highlights the significance of customizing training to the varied profiles of teacher-trainees to maximize effectiveness (Amanatidis, 2014). The importance of higher education in this subject is shown in the vital role played by the School of Pedagogical and Technological Education (ASPETE) for technical teachers, which provides a strong teaching practice system that prepares aspiring technical teachers (Kantonidou & Chatzarakis, 2005). The Greek teacher training system is complex and multifaceted, with continuous challenges and revisions to enhance teacher qualifications and educational achievements.

The interaction of educational reforms in response to broader economic crises with socio-political shifts has played a significant role in developing teacher training programs in Greece. Greece's educational landscape saw significant change starting in 2007 due to financial upheaval, which made it necessary to reevaluate teacher training approaches to better meet the requirements and problems of the modern world. The current legislative structure frequently reflects exclusionary behaviors that extend into educational policy, as demonstrated in other sectors such as immigration and refugee regulations. This has a disproportionate impact on the inclusivity of teacher training programs (Felix, 2020). Like requests for revisions in the disintegration theory, which highlights unique components in complex systems, this event demonstrated the urgent need for more progressive, flexible frameworks that can adapt to varied problems (Nalaskowski, 2015). As a result, the development of teacher preparation has placed a growing emphasis on incorporating modern educational approaches while also addressing systemic historical shortcomings. With this change, we hope to provide educators with a more adaptable and welcoming professional development environment, better preparing them to address the varied needs of their students. Furthermore, the present trajectory of teacher preparation is focused on developing an ecosystem where teachers can flourish and positively impact the educational landscape, focusing on reflective practices and collaborative learning. The continuous change is an important step in improving education quality and advancing equity and access in the teaching profession. This will help to develop a new generation of teachers who can successfully manage the complexity of today's educational demands (Koruga & Nikolić, 2023).

3.1.2. Historical Development of Teacher Training in Serbia

Particularly in the 20th and 21st centuries, historical settings and various educational reforms have shaped the development of teacher preparation in Serbia. At first, practical training took center stage in teacher education at pedagogical schools. This approach prioritized direct classroom participation and ensured teachers had the practical expertise to teach effectively. Since the start of educational reforms in 2000, there have been substantial changes to Serbia's historical evolution of teacher training. These changes aimed to bring the curriculum, teaching strategies, and teacher preparation up to date (Brković, 2015). In-service teacher training (INSET), a component of more comprehensive educational reforms, including inclusive education and school development planning, has been one of the key areas of concentration. However, despite these efforts, the policymaking process and the social and pedagogical framework in which these reforms are implemented have caused great dissatisfaction among school staff (Teodorović et al., 2019). The primary subject teacher's role in specialized education is essential for musically inclined pupils. Research shows a big difference between teachers' expected and actual skills, highlighting a conventional pattern in the interactions and communication between teachers and students (Bogunović & Mirović, 2014). Error-based learning (EBL) and learning analytics (LA) are two active approaches in teacher preparation that have been investigated to improve prospective teachers' historical thinking abilities. This strategy differs from conventional ones and shows how cutting-edge pedagogical techniques might enhance teacher preparation (Tirado-Olivares et al., 2023). Furthermore, well-run professional development initiatives, such as the Timewise approachfocused program aimed at enhancing students' comprehension of historical time, stress the significance of organized and easily navigable resources that support instructor autonomy and productive classroom practices (de Groot-Reuvekamp et al., 2018). Overall, the evolution of teacher preparation in Serbia results from a complicated interaction between contemporary reforms and ancient practices, with continuous difficulties arising from the need to match competencies and expectations within the education framework.

However, as pedagogy and societal demands shaped the educational landscape, it





became clear that a more structured and intellectually demanding curriculum was required (Kotsis, 2024a). This insight encouraged the integration of theoretical underpinnings with hands-on training, resulting in a more comprehensive approach to teacher preparation. This major change is in line with broader European trends highlighted by the Bologna Process, which aimed to improve the caliber and applicability of teacher training programs while also standardizing higher education institutions throughout Europe. As noted by Stanišić and Maksić (2014), although these efforts have improved educational outcomes and prepared future educators, challenges still exist, such as the need for continual pedagogical innovation and increased curriculum integration of environmental awareness. Additionally, substantial changes to the regulatory framework controlling teacher education have aided in the convergence of standards toward those described by Matei (2009). The aforementioned modifications demonstrate Serbia's dedication to harmonizing its pedagogical approaches with global standards and underscore the significance of flexibility in educator preparation initiatives to fulfill the ever-changing requirements of contemporary education. Teacher preparation is still crucial to ensuring educators are ready to deliver high-quality instruction in a world becoming more complicated and linked as Serbia navigates its educational reforms.

3.1.3. Impact of Historical Events on Current Training Practices

Significant disparities exist between the academic preparation programs for teachers in Greece and Serbia, which may affect student results differently. Elementary and secondary school teachers' professional standing and training differ significantly throughout Greece. The two-year program at non-university level Pedagogical Academies offers a combination of general, specialized, and professional subjects and qualified elementary teachers. 'Professors,' or secondary educators, on the other hand, have degrees from universities in academic fields, indicating a more demanding intellectual background (Kazamias, 1985). This discrepancy may be caused by secondary teachers having superior subject-specific expertise, which could result in variations in the quality of instruction and student results. On the other hand, although Serbia's teacher training system has adapted to the Bologna Declaration, there is no national structure. Therefore, different institutions have different curricula (Zlatković & Petrović, 2011). This discrepancy may result in uneven instructor proficiency, impacting students' educational experiences. Moreover, universities' primary education departments have trained elementary teachers for over 40 years. This suggests a proactive strategy for raising the caliber of instruction, which may favor student results. Further evidence that comprehensive pedagogical preparation can promote positive employment attitudes irrespective of initial career motives implies that teaching effectiveness can be enhanced by the interaction between education paths and intrinsic motivation in Greece (Marušić-Jablanović et al., 2018). However, in Serbia, the lack of a substantial effect of teacher preparation on attitudes toward their jobs indicates that the old system paths would not have sufficiently prepared instructors for the needs of the modern classroom (Marušić-Jablanović et al., 2018). Lastly, the TRANSIt project's emphasis on competence-based education in Greece seeks to strengthen students' critical competencies by developing teachers' abilities, which, if well executed, may improve student outcomes (Riviou & Sotiriou, 2016). These variations demonstrate how crucial comprehensive and standardized teacher preparation programs are to determining the caliber of education and the achievement of students.

The historical events that occurred in Greece and Serbia have had a significant impact on teacher training methods. These events have shaped the methodologies and underlying ideas guiding education. Greece's unstable political environment, which included periods of occupation and civil upheaval, made an adaptable educational framework necessary to help teachers develop resilience and a sense of national identity. Contemporary teacher training is informed by this demanding and dynamic historical context, focusing on civic education and pedagogical approaches that demonstrate a dedication to fostering social cohesion and democratic values. Furthermore, the emphasis on creating curricula that promote civic participation and critical thinking highlights the significance of informed and engaged citizenship in Greece's educational system. On the other hand, Serbia's training methods have changed due to a notable move away from a centralized educational system that resulted from Yugoslavia's dissolution and toward a more decentralized strategy. This change has created a learning environment that values a variety of instructional strategies guided by international educational standards while also recognizing and incorporating the area's distinct cultural heritage and history. The way that every nation approaches its educators' preparations reflects the influence of these historical legacies. Greece strongly emphasizes teaching its kids about their civic rights and history. Serbia declares its commitment to more extensive educational





reform that will enable educators to prepare pupils for a globalized society better. This fine balance seeks to satisfy the student body's many needs while meeting modern society's demands.

3.2. Structure and Curriculum of Teacher Training Programs

It is clear from the content and structure of teacher training programs in Greece and Serbia that both countries have taken a proactive approach to educational reform and have made great progress toward bringing their educational systems into compliance with European norms. Implementing the Bologna Process has signaled the start of a significant restructuring phase that has significantly impacted the organizational and legal aspects of higher education in these nations and, ultimately, prompted a reassessment of current pedagogical techniques. In particular, Greece and Serbia have redesigned their curricula to ensure they align with the capabilities specified in important European agreements, demonstrating a stronger dedication to standardization and excellence in education (Kotsis, 2024b). Notably, the curriculum now emphasizes experiential learning and critical pedagogy in the context of public administration, encouraging a more hands-on approach to teaching that equips teachers to interact and comprehend a broader range of learning situations. This move toward more modern teaching methods is essential because it reflects changing demands from stakeholders in education as well as from students. According to recent analyses, harmonizing curricula enables student mobility throughout the European Higher Education Area (Tsiouri et al., 2024). It generally raises the standard of education, making these countries' educational systems more globally competitive. Moreover, the cooperative endeavors that serve as the foundation for these modifications represent a more expansive goal of cultivating highly competent instructors capable of meeting the needs of modern classrooms and making constructive contributions to society. These advancements demonstrate a solid dedication to continuous enhancement and assistance for the instructing profession, guaranteeing that teachers are adequately equipped to mentor and motivate the next generation (Matei, 2009; McDougall et al., 2017).

3.2.1. Comparison of Degree Requirements for Teacher Education in Greece

From looking at the degree requirements for teacher education in Greece, it is clear that important curricular and structural components set it apart from other educational systems, such as Serbia. A four-year college degree, usually in pedagogy or a related field, is largely required by Greek teacher education programs to be eligible to teach. This educational framework emphasizes a comprehensive approach to pedagogy that educates future teachers to convey knowledge and meaningfully engage with students by providing them with the theoretical knowledge and practical skills necessary for effective teaching. In contrast, the demand for better educational quality is equally evident in Greece's teacher training programs in other regions, as evidenced by the modernization of tourism training in areas like the Lower Danube. This acknowledgment highlights the significance of continuous evaluation and modification in these initiatives. Efforts to improve teachers' competencies through ongoing professional development align with the need noted in (Tigu et al., 2010), demonstrating a dedication to lifetime learning for educators. Furthermore, the Program for International Student Assessment emphasizes how important it is for teachers to apply their knowledge in various circumstances, which implies that Greek teacher education needs to be updated frequently to keep up with changing societal expectations. Incorporating cutting-edge teaching strategies and current course material is crucial to ensuring that teachers are adequately equipped to tackle the demands of a world that is changing quickly. Greece significantly emphasizes working together between academic institutions and educational officials as it navigates these reforms. This collaboration fosters an atmosphere that favors growth, adaptability, and responsiveness to local and worldwide educational trends.

3.2.2. Analysis of Curriculum Content in Serbian Teacher Training Programs

Understanding the complex relationship between educational governance and the efficacy of teacher preparation is crucial when analyzing the curricular content of Serbian teacher training programs. According to the current frameworks, creating a strong and well-rounded curriculum is essential to supporting high-quality instruction. A carefully designed curriculum guarantees aspiring teachers have the information and abilities to comply with current educational standards and practices. In contrast, ideas from the governance theory emphasize the need for an epistemic branch devoted to education, reiterating Forum Theory's calls for a National Assembly of Science and Learning. As mentioned, these institutions could function as dynamic forums for thought leadership by giving teachers a say in yearly





curriculum evaluations. These methods support the integrity and research-based approaches in teacher preparation by combining different viewpoints from experts in the field (Colignatus, 2020). Furthermore, in keeping with the need for ongoing curriculum improvement, the historical development of curricula in Serbia should consider the abuses mentioned in education research (Colignatus, 2020). Recognizing historical failures can open the door to changes that close gaps and strengthen current issues, ultimately resulting in an improved educational system. As a result, implementing a methodical and cooperative strategy benefits the educational environment by promoting a community of practice among educators and increasing the relevance and effectiveness of teacher preparation. It will be possible for the curriculum to always be changing to meet the needs of society and education in the 21st century.

3.2.3. Differences in Practical Training Components Between the Two Countries

Due to each country's historical background and educational reforms, there are parallels and distinctions between the academic training programs for teachers in Greece and Serbia. In order to comply with labor market requirements and industrial norms, teacher preparation programs in Greece, especially those for vocational and technical education, strongly emphasize integrating academic knowledge with pedagogical studies and practical experience. Programs like ASPETE, which concentrate on providing teachers with professional skills throughout their careers, are examples of this strategy in action (Tzortzi & Papakitsos, 2022). However, the absence of formal teacher training programs outside of pedagogical schools poses a severe problem for Greece. It contributes to the widespread belief among educators that their initial training was insufficient for their teaching positions (Antypas, 2022). Conversely, Serbia has modified its teacher preparation program to conform to the Bologna Declaration, initially establishing a common curriculum for all teacher colleges. The goal is still to attain equal educational outcomes and competencies across teachers, but later adjustments have resulted in inconsistent curricula across institutions and lacking a national framework (Zlatković & Petrović, 2011). Despite these variations, pedagogical training is crucial to improving teaching efficacy in both nations. According to Marušić-Jablanović, Pejatović, and Stemberger (2018), there is no discernible correlation between the amount of formal education and career characteristics in Serbia. This implies that a bachelor's degree in pedagogy provides appropriate preparation for entering the teaching profession. In the meantime, the Bologna Plan's emphasis on pedagogical training in higher education throughout Europe highlights the necessity of ongoing modification and advancement in instructional strategies - a problem faced by both the Serbian and Greek educational systems (Rivetta et al., 2018). While teacher preparation is a goal shared by both nations, Serbia struggles with curriculum coherence and conformance with European standards. At the same time, Greece emphasizes fusing real-world experience with academic learning.

The differences between Greece and Serbia's practical training components are mostly shaped by their respective educational philosophies and structural frameworks. In Greece, teacher preparation focuses on an integrated strategy combining considerable classroom practice with theoretical coursework to prepare potential educators for immediate entry into the field (Kalathaki, 2018). A common component of this extensive preparation is student teaching, which enables aspiring teachers to apply what they have learned in the classroom under the guidance of more seasoned teachers. On the other hand, graduates of Serbia's system are thought to be less equipped for the challenges of a real classroom because the system usually separates academic learning from practical training. This separation impacts the overall efficacy of teacher preparation. It can lead to a gap between what educators learn in theory and how it is applied in real-world teaching circumstances (Petrovska & Veselinovska, 2014). As a result, an excessive emphasis on theory may cause a substantial gap between pedagogical understanding and actual application, making it challenging for novice teachers to handle the intricacies of classroom dynamics.

3.2.4. The most effective strategies for integrating technology into teacher training programs in Greece and Serbia

Nearly all Greek teachers have participated in extensive initiatives to incorporate technology into teacher training programs to provide them with the digital skills required for contemporary teaching methods. This all-encompassing strategy guarantees that educators are ready to integrate digital technology into their lessons, boosting their professional growth and capacity for creative teaching initiatives (Dagdilelis, 2018). As demonstrated by the necessity of assistance from colleagues and school principals, the training programs strongly





emphasize experiential seminars run by expert scientists, which are essential for teachers to successfully implement new technologies in creative educational initiatives (Kolyvas & Nikiforos, 2020). Serbia focuses on comprehending how educators view tactics that impact their professional growth, especially in settings where technology is used. The Belgrade study emphasizes the teachers' attitudes about technology integration (particularly, the time they spend on teaching, their educational background, and their level of education (Joksimović et al., 2018). Both nations agree that ongoing professional development is essential to ensuring efficient classroom technology use. When taken as a whole, these tactics show how important thorough training courses, network assistance, and organized models are to improving teacher development and ensuring that technology is successfully incorporated into the classroom.

3.3. Policy Framework and Government Involvement

Government policy frameworks play a crucial role in debates about the effectiveness of teacher preparation programs because they set the expectations and requirements for professional development and educator preparation. The unique political institutions found in each nation significantly impact the approaches and procedures used in teacher preparation. For example, Greek government policy prioritizes a highly centralized model. The Ministry of Education carefully defines training standards, curriculum requirements, and evaluation criteria to improve student results and guarantee teacher performance responsibility. This centralization facilitates the uniform application of educational standards nationwide and encourages consistency in teacher preparation (Kalerante & Eleftherakis, 2018). On the other hand, the disjointed administrative structure of Serbia has resulted in notable variations in standards among various regions and municipalities. This has complicated and frequently impeded creating a cohesive and unified system for teacher training that could effectively cater to the country's varied educational contexts. The stark contrasts between the two nations emphasize how vital it is for the government to remain actively involved in creating coherent training systems. In order to create an atmosphere that is favorable to the development of teachers, systemic support and unambiguous government direction are necessary for the implementation of successful educational reforms. Results from international examinations like PISA show how policy decisions impact the efficacy and quality of education as a whole (Schleicher, 2017). In order to improve teacher preparation in Greece and Serbia and, eventually, improve student results in a setting that is becoming more interconnected and globalized, it is imperative to comprehend these diverse policy frameworks.

3.3.1. Role of the Greek Government in Regulating Teacher Training

Regarding educational changes, the Greek government is crucial in forming the framework for teacher preparation, which is necessary to uphold academic standards and improve pedagogical approaches (Koustourakis, 2007). The government's regulatory processes are designed to make teacher preparation programs more in line with national educational objectives. This is mainly in reaction to larger European initiatives like the Bologna Process, which aims to standardize higher education among its member nations. In order to ensure that aspiring teachers have the necessary abilities to support student success, these reforms have sparked a comprehensive reworking of the curriculum and training methods (Georgas, 2016). This critical goal reflects the direction that "all children may succeed" (Sultana et al., 2019). In addition, the government analyzes existing training programs and implements strict accreditation requirements to create definite standards for quality and accountability in teacher education. This coordinated effort makes it easier to prepare educators more logically and starts a never-ending cycle of progress in Greece's educational system. The government's commitment to cultivating a highly educated teaching staff that can meet the different requirements of children is demonstrated by its active involvement in offering assistance and oversight in teacher training programs (Gounari & Grollios, 2012). Furthermore, the government provides funding for continuous professional development programs to guarantee that educators stay up to date with changing methods of instruction, thereby increasing their efficiency in the classroom. The Greek government is instrumental in improving teacher preparation programs to benefit the country's pupils and the educational community by creating a strong regulatory framework (Farmakis et al., 2019).

3.3.2. Serbian Educational Policies Affecting Teacher Training

Significant changes have been implemented in Serbian educational policies to improve teacher preparation, emphasizing integrating local demands and international standards (Kisić, 2018). As demonstrated by the Trends in International Mathematics and Science Study





(TIMSS) 2019 results, which highlight the significance of evidence-based approaches in education, the nation has concentrated on coordinating its teacher preparation programs with international trends (Koršňáková et al., 2022). This alignment goes beyond simply adopting global standards on the surface. On the other hand, it represents a thorough dedication to integrating demanding teaching methods that develop students' capacity for critical analysis and problem-solving within the curriculum (Babić, 2020). In addition, rules have been changed to support a more comprehensive strategy that considers cultural sensitivity and pedagogical expertise that influence Serbia's educational environment (Teodorović et al., 2019). Given that students come from a variety of backgrounds and that teachers must interact with and respect these differences in the classroom, this holistic approach is crucial. These adjustments show a dedication to improving the standard of education and addressing the particular difficulties facing the Serbian educational system, especially in light of recent sociological and economic upheavals (Pesikan & Ivic, 2021). Serbia emphasizes the need for ongoing professional development for educators as it works to raise its ranking in international education assessments and increase the competitiveness of its educational system on a global scale. This emphasis is similar to that of peer countries such as Greece. Prioritizing continuous training and professional development is imperative to effectively adjust to novel pedagogical approaches. By aligning policies, a stronger framework is created to support successful teaching methods and develop a generation of educators who can motivate and guide future learners

3.3.3. Comparative Analysis of Funding and Resources Allocated to Teacher Training

Understanding the effects of these investments on educational results and institutional effectiveness is essential when analyzing the funds and resources allotted to teacher training in Greece and Serbia. Both nations have made significant changes to their higher education systems due to the Bologna Process, which strives to raise standards and quality of education throughout Europe. There are differences in the resources available to teacher training institutions due to bureaucratic restrictions and uneven resource distribution, which are common features of Greek funding structures. This discrepancy may lead to a severe imbalance in the caliber of teacher preparation, which will unavoidably impact students' overall educational experiences. On the other hand, although Serbia has made significant progress toward harmonizing its funding systems with European norms, it continues to face financial constraints that jeopardize the viability of its teacher preparation initiatives. The lack of funds prevents educational institutions from investing in cutting-edge training techniques or offering teachers enough opportunities for professional development. The comparative analysis highlights the need for both nations to prioritize sufficient investment and equitable resource distribution in order to foster improved pedagogical practices and to align with the strict standards set forth by the European Higher Education Area, even in the absence of specific data on funding for teacher training (Matei, 2009). Policymakers in both countries must consider the enduring consequences of their funding approaches, guaranteeing that teacher preparation continues to be a cornerstone of educational transformation. Therefore, strong financial support and wise resource allocation are critical to any teacher training initiative's success (Coburn & Gormally, 2017). Without resolving these significant financing concerns, Greece and Serbia would struggle to attain their educational objectives and develop a teaching workforce prepared to take on the challenges of a quickly evolving educational environment.

4. Discussion

When the findings of the comparative study of teacher preparation programs in Greece and Serbia are combined, it becomes evident that each country has its own unique challenges and advantages that have an impact on the educational environments in which they are implemented. This necessitates a comprehensive understanding of the specific environments in which they are implemented. In spite of the fact that Greece has made significant headway in integrating informatics into its educational system, it is of the utmost importance to conduct an in-depth analysis to determine whether or not these advancements are sufficient to meet the evolving requirements of the labor force in the twenty-first century. On the other hand, Serbia continues to struggle with the challenge of encouraging its teachers and students to adopt an entrepreneurial framework. This issue calls for a comprehensive investigation into the structural im-pediments that are preventing this process from occurring. It is impossible to overstate the significance of putting an emphasis on entrepreneurial education because





done so has the potential to enhance both the level of student engagement and the overall quality of education. This will have a direct impact on future teaching methods as well as the ability of students to adapt to a changing economic landscape. In addition, the challenges that Serbia faces in achieving its entrepreneurial goals require a reevaluation of the programs that are currently being used to prepare teachers. It is possible that a thorough examination of these guidelines will reveal that modifications are necessary in order to successfully equip educators with the skills and knowledge necessary to cultivate an entrepreneurial mindset (Nakayama, 2022). In the end, both nations have the ability to pursue a framework for teacher training that is more robust and responsive, incorporating a variety of pedagogical approaches, by recognizing and critically addressing these differences. In the long run, this will equip educators with the skills necessary to cater to the ever-changing requirements of their respective educational systems and to cultivate an atmosphere that is conducive to innovation.

The incorporation of cutting-edge pedagogical approaches and standardized assessments ought to be a top priority for any future improvements that are made to teacher training programs in Serbia and Greece. This is because the effectiveness of teachers cannot be im-proved without these elements. Both countries ought to carefully consider reorganizing their curricula in order to better conform to international educational standards after conducting an in-depth analysis of the results of international assessments, such as the ones highlighted in PISA, which place an emphasis on the value of knowledge and skill adaptability in real-world applications. The incorporation of comprehensive modules on critical thinking, problem-solving, and the integration of technology in the classroom into teacher training programs is recommended in order to guarantee that aspiring educators are not merely recipients of information but also creators of innovative instructional strategies. Furthermore, it is essential to place a strong emphasis on collaborative learning and ongoing professional development because it enables educators to share their ideas and strategies with one another, thereby providing them with the tools they require to successfully meet the specific educational requirements of a wide range of student demographics. According to the research of Solano and Huddleston (2020), these changes are anticipated to improve educational outcomes and cultivate a culture that is centered on excellence, which has the potential to elevate the teaching profession in Greece and Serbia. In the end, these changes will be beneficial to future generations of students.

5. Conclusions

There are notable differences between the teacher training programs in Greece and Serbia regarding their structural and pedagogical methods, which eventually affect student learning. The main focus in Greece has been on following a centralized curriculum, which begs serious concerns about how much this emphasis may prevent future instructors from developing critical thinking and practical application abilities. This dependence on a strict curriculum may indicate the need for educational reform to equip educators better to meet the changing demands of contemporary classrooms. On the other hand, Serbia's system exhibits a more adaptable strategy, successfully incorporating contemporary teaching methodologies that improve students' analytical capacities and practical problem-solving abilities. This is especially noticeable in high-stakes exams like PISA, which gauge students' memorization of information and ability to apply it in challenging situations. Furthermore, in both situations, the participation of stakeholders - parents and educational institutions, for example - is essential. Nevertheless, Serbia seems to involve these groups more successfully, which begs the question of how such cooperation creates a favorable atmosphere for educational reform. These results show the complexity of teacher preparation, the advantages and disadvantages of the system, and the possibility for cross-national learning to support and strengthen systemic changes in Serbia and Greece.

A critical analysis of Serbia's and Greece's present teacher training frameworks reveals some research directions that have the potential to significantly improve educational performance in both countries. First, longitudinal research examining the effectiveness of different pedagogical approaches within these training systems would allow for the evaluation of the biases and presumptions present in these approaches and provide insightful information about their long-term effects on student accomplishment and teaching quality. Furthermore, examining the function of peer collaboration and mentorship during the training process raises critical issues regarding how these dynamics affect instructors' confidence and teaching philosophies. These investigations could also reveal best practices





that support professional development. A greater understanding of cultural circumstances and their consequences for policy change might be encouraged by adding cross-cultural comparisons with teacher training models from other successful international systems. This would offer a broader perspective on prospective reforms and adaptations. Finally, empirical studies that incorporate technology tools into teacher preparation programs should evaluate how digital literacy influences educational approaches in these nations while critically examining the usefulness and accessibility of these resources for a range of student demographics. These projects would add to the body of knowledge in academia and lay the groundwork for real-world enhancements to teacher preparation programs in Greece and Serbia, highlighting the significance of evidence-based approaches in creating educational policies.

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