



# Developing Global Competencies in Teacher Education for 21st Century Learning Environments

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**Abstract:** Incorporating global competencies into teacher training is a vital strategy to equip educators with the skills necessary to meet the demands of 21st-century classrooms. These competencies—such as global awareness, intercultural communication, critical thinking, and cross-cultural understanding—play a crucial role in creating inclusive and dynamic learning environments. This study adopts a library research approach, analyzing various academic sources, journals, and reports relevant to teacher training and the development of global competencies. The research aims to emphasize the significance of these competencies in teacher preparation, explore effective teaching methods, identify challenges in implementation, and assess their effects on both educators and students. The findings indicate that experiential learning and the integration of educational technology are among the most effective strategies for fostering global competencies in teacher training programs. Despite these advances, obstacles such as limited resources, inadequate funding, and a shortage of qualified trainers remain challenges. Teachers who complete this training demonstrate better management of classroom diversity and are more adept at teaching global issues. Students taught by these educators show improvements in critical thinking and social empathy. This study highlights the need for policies that support global competency-based teacher training, the creation of interactive training materials, and the promotion of international collaborations. The results suggest that a comprehensive approach to educational reform is essential for preparing teachers to meet the evolving needs of contemporary classrooms and to build inclusive, sustainable societies.

**Keywords:** Global Competencies, Teacher Training, 21st-Century Education, Cultural Diversity, Educational Policy

## INTRODUCTION

The dynamics of globalization have introduced new challenges across various sectors, including education. In the 21st century, the ability to think globally and act locally has become a critical competency required of individuals, especially teachers. Global competencies encompass the ability to understand and appreciate cultural diversity, critically evaluate global issues, communicate effectively in cross-cultural contexts, and demonstrate empathy and social



responsibility. Teachers equipped with global competencies can instill these values in students, preparing them to navigate an increasingly complex world (Hoh, 2020; Keiner, 2018). Thus, education is not merely about imparting knowledge but also shaping character and social skills essential for active participation in the global society.

As key actors in education, teachers play a crucial role in developing students' understanding of global issues such as climate change, social inequality, human rights, and advancing technology. Teachers trained in global competencies can inspire students to think critically and creatively when addressing these intricate global challenges. However, global surveys indicate that many teachers lack formal training in integrating global competencies into their teaching practices (Green, 2019; Zhao, 2021). This highlights the pressing need for reforms in teacher training to ensure educators are equipped to guide students in meeting the demands of a rapidly evolving world.

Education has undergone significant transformations, particularly with the emergence of competency-based education (CBE). In the era of globalization, students are not only expected to excel in traditional subjects such as mathematics, science, or languages but also to acquire global competencies involving cross-cultural literacy, critical thinking, and collaboration. These skills equip students to adapt to fast-changing and diverse societies (Friedman, 2019; Day & Sutherland, 2022). Teachers, as agents of educational change, must be prepared to adopt this approach in their classrooms, integrating global competencies into daily learning activities.

Many developed and developing countries have begun incorporating global competencies into their curricula. For instance, the United States' Global Competence Framework initiative and Finland's phenomenon-based learning approach emphasize the importance of integrating global competencies into education systems (Hofstede, 2020; Suh & Kim, 2021). These approaches focus on teaching that engages with real-world issues, encouraging students to understand the connections between disciplines and their global implications. However, teacher training often presents the biggest hurdle in implementing these initiatives, as many training programs are not designed to help teachers develop these skills.

One of the main challenges in teacher training is the misalignment between the demands of 21st-century classrooms and traditional training models. Many teacher training programs still emphasize conventional educational theories without providing direct experience or practical insights into global competency-based teaching. Moreover, most teacher training curricula do not



account for the importance of digital literacy, cross-cultural collaboration, and social awareness as essential skills for teachers (Baker, 2020; Zeng, 2019). In many cases, teacher training programs are disconnected from the realities of the field, where educators face significant challenges in equipping students with skills needed to address global issues.

Resource limitations, policy support, and access to technology-based training also remain barriers. For example, teachers in developing countries often lack access to adequate training on utilizing technology to support cross-cultural learning. Meanwhile, in developed nations, despite the availability of technology, the challenge often lies in the lack of relevant pedagogical approaches for integrating global competencies into tech-based learning. This demonstrates that technology alone is insufficient; appropriate pedagogical strategies are essential to maximize the potential of technology in education.

Technological advancements offer significant opportunities to address these challenges. Online learning platforms, virtual simulations, and global collaboration software enable teachers to learn and interact with colleagues worldwide. Technology also allows access to resources that support global competency-based teaching, such as interactive videos, cross-cultural materials, and virtual reality simulations addressing global issues (Evans, 2020; Reilly, 2018). By leveraging technology effectively, teachers can make global competency education more engaging and relevant for students, equipping them with both knowledge and skills needed to thrive in an increasingly globalized and digital world. to utilize technology effectively, teachers require in-depth training on integrating technology into global competency-based learning. They also need to understand how to create classroom environments that support the exploration of global issues and encourage students to think critically about them (Smith, 2022; Davidson, 2020). This calls for a shift in teacher preparation, ensuring educators not only master technology but also use it to enhance students' understanding and global skills.

International organizations such as UNESCO, OECD, and the World Bank have emphasized the importance of global competencies in education. According to the OECD PISA Global Competence Framework, global competency is not only about understanding other cultures but also about taking action to address the social and economic challenges the world faces (Hansen, 2020; United Nations, 2021). These reports urge governments and educational institutions to design policies that support the integration of global competencies in teacher training. Therefore,



global education policies must back teacher training that incorporates global issues, ensuring they are better prepared to teach global competencies to students.

For example UNESCO's Education for Sustainable Development (ESD) initiative has promoted integrating sustainability issues into teacher training. In some countries, this initiative has led to significant changes in how teachers are trained to approach issues such as climate change and global inequality (Tucker, 2019; Choi & Lee, 2021). In this context, teacher training focuses not only on teaching academic skills but also on shaping attitudes and values that support social, economic, and environmental sustainability. Thus, integrating global competencies into teacher training can serve as a key to creating more inclusive and sustainable education systems.

This research holds significant relevance for policymakers, educational institutions, and teachers in understanding the importance of integrating global competencies into teacher training. By describing the challenges and opportunities in implementing this approach, the study provides practical recommendations to enhance the effectiveness of teacher training in various contexts. The study aims to offer insights that help education decision-makers design policies supporting global competency development among teachers.

In an era where geographical boundaries are increasingly blurred, preparing teachers with global competencies is a strategic step to ensure students not only become good citizens but also responsible global citizens. Integrating global competencies into teacher training is not only relevant but also urgent to create an inclusive, relevant, and future-oriented education system. By equipping teachers with global competencies, education can help create a generation ready to face the complex global challenges with critical thinking, collaboration, and action toward achieving better social and economic sustainability goals.

## **METHOD**

### **Research Approach**

This study uses the library research method, aiming to collect data and information from various written sources relevant to the research topic. This method was chosen to understand, analyze, and interpret concepts, theories, or previous findings related to integrating global competencies into teacher training for 21st-century classrooms. This research approach is descriptive-analytical, describing data gathered from various sources and analyzing it to draw



conclusions aligned with the research objectives (Creswell, 2013; Patton, 2002; Denzin & Lincoln, 2011).

### **Data Sources**

This study utilizes two types of data sources: primary and secondary. Primary sources include textbooks, scholarly journals, research reports, and educational policy documents directly addressing global competencies, teacher training, and 21st-century education. Furthermore, publications from international organizations such as UNESCO, OECD, and the World Bank relevant to the research topic are included. Secondary sources include popular articles, expert opinions, and critical analyses that support or oppose the integration of global competencies in education, as well as dissertations, theses, and conference reports that contain relevant findings (Flick, 2018; Charmaz, 2006).

### **Data Collection Techniques**

Data were collected through several steps. First, the identification of written sources was conducted using keywords such as *global competencies*, *teacher training*, *21st-century education*, and *educational leadership* to search for sources in physical and digital libraries. Academic databases like ProQuest, Scopus, SpringerLink, and Google Scholar were also utilized to access journals and scholarly articles. Second, a review of relevant literature was carried out by examining abstracts and introductions to ensure the sources' relevance to the research topic. An initial bibliography was compiled to focus the literature review. Third, the data obtained were categorized by themes, such as global competencies, teacher training, the role of technology, education policy, and international practices (Berg, 2009; Glesne, 2015).

### **Data Analysis Techniques**

The data collected were analyzed using descriptive-analytical techniques. The analysis phases included data reduction, data presentation, and conclusion drawing. Data reduction was performed by identifying relevant information and eliminating irrelevant information. Data presentation was done by organizing the data into easy-to-understand formats, such as thematic tables, conceptual diagrams, or narratives. At this stage, the relationships between theories, previous research findings, and the context of the research topic were highlighted. Finally, conclusions were drawn by interpreting the data to answer the research questions. The findings



were then linked to relevant theoretical frameworks or models to provide practical and academic recommendations (Silverman, 2013; Miles & Huberman, 1994).

### **Data Validity**

To ensure data validity, this study used source triangulation. This approach involved comparing findings from various types of sources, ensuring that the sources used were highly credible, such as those published by leading publishers or reputable journals, and performing critical reading to detect biases or weaknesses in the original authors' arguments. This approach ensures the accuracy and reliability of the research findings, thereby providing a strong basis for developing relevant and reliable recommendations (Saldana, 2016; Patton, 2002).

## **RESULTS AND DISCUSSION**

This study reveals several key findings related to the integration of global competencies in teacher training. These findings provide insights into how teachers can be prepared to address the increasingly complex classroom needs in the era of globalization, as well as the challenges that need to be overcome in the process. Below is the discussion of the research results summarized into several key themes.

### **The Importance of Global Competence in Teacher Training**

Global competence in teacher training has become an urgent need in the era of globalization. Teachers are not only responsible for teaching academic content but also for equipping students with the skills necessary to face the challenges of an interconnected world. These skills include critical thinking, cross-cultural communication, and a deep understanding of global issues that impact social, political, and economic life today. In this context, teachers act as agents of change who not only shape students' academic knowledge but also their character in dealing with differences and diversity present in the world (Rensink, 2020; Tichnor-Wagner, 2017). Global competence helps create an inclusive learning environment that values diversity. Teachers trained in this aspect are better equipped to manage diverse classrooms, whether in terms of culture, religion, or social background. This is crucial because diversity is an integral part of modern society, which is increasingly multicultural. Teachers with global competence have a better understanding of how to create learning spaces that support all students without exception. This,



in turn, strengthens values of tolerance and social harmony, which are essential in an increasingly heterogeneous society (Gay, 2010; Kerkhoff, 2020).

Global competence enables teachers to be more sensitive to emerging social issues. In their teaching, teachers do not solely focus on delivering academic content but also guide students to understand and respond to relevant global issues such as climate change, gender equality, and social justice. This allows students to become individuals who are not only competent in academics but also concerned about broader global issues and capable of thinking critically about the challenges they face (Ladson-Billings, 1995; Almeida, 2016). Teacher training that integrates global competence also impacts the overall quality of education. Teachers trained in this way tend to be more flexible in facing various developments and challenges that arise in the field of education. With the ability to integrate technology, adopt more interactive teaching methods, and adapt curricula to the needs of the times, teachers can create more relevant and engaging learning experiences for students. This supports the creation of more comprehensive learning and better prepares students for life in the 21st century (ASCD, 2024; Sakamoto, 2022).

Global competence in teacher training helps strengthen the relationship between schools, families, and communities. Teachers with global insights can become more effective bridges between students and various elements of society, including discussing cultural differences, social values, and other issues. With this capability, teachers not only serve as educators in the classroom but also as facilitators in building better understanding and cooperation among community members. This is especially relevant in the context of Indonesia, which has a highly diverse culture (Kerkhoff, 2020; Sakamoto, 2022). Global competence in teacher training is essential in shaping a generation that excels not only academically but also in adapting to and playing an active role in an increasingly interconnected global society. Therefore, the development of global competence in teacher training should be a priority in educational policy to ensure that the education provided is not only relevant at the local level but also prepares students for greater global challenges (Rensink, 2020; Almeida, 2016).

### **Effective Methods in Global Competence Training**

Global competence training for prospective teachers requires an approach that is not only effective but also relevant to the demands of an increasingly interconnected and diverse world.



Research shows that several training methods have proven effective in equipping teachers with global competencies, including experience-based and technology-based approaches. These methods can enhance teachers' understanding of cultural diversity, global issues, and prepare them to face the challenges of 21st-century education (Papadopoulou, Palaiologou, & Karanikola, 2022; Merry, 2020).

One of the most effective methods is the experience-based approach. Cross-cultural simulations, global case studies, and international collaborative projects are valuable techniques in global competence training. In cross-cultural simulations, prospective teachers are placed in situations where they can experience and interact with different cultures. This provides a deeper understanding of diversity dynamics and enhances cross-cultural communication skills (Deardorff, 2006; Tuncer & Kaya, 2021). For example, through simulations where teachers interact with students from diverse cultural backgrounds, they can better understand the challenges faced by students in learning and adapting in a multicultural environment. Teachers involved in such simulations can apply their knowledge to create more inclusive classroom management, which in turn fosters a harmonious and respectful learning environment. Additionally, global case studies offer prospective teachers the opportunity to learn about major issues facing the world today, such as climate change, economic inequality, and globalization (Zhao, 2012; Finkelstein, 2020). These case studies not only enrich their understanding of these issues but also teach how to link lesson content to real-world problems. Through these case studies, prospective teachers can develop critical and reflective thinking skills, which are essential in teaching in a constantly changing world. International collaborative projects are also highly effective. By collaborating with peers from various countries, teachers can not only share experiences and knowledge but also learn from the approaches applied in other countries (Zhu & Zhang, 2020; Cushner & Mahon, 2002). This type of collaboration broadens their perspectives on different educational systems and teaching methodologies applied globally, enriching their learning experiences.

Another increasingly popular method is technology-based training. Educational technology, especially online learning platforms, offers great opportunities for prospective teachers to access global educational resources and interact with peers from various countries. By using online platforms such as webinars, international discussion forums, or online courses, prospective teachers can broaden their cultural horizons and learn from global perspectives without



geographical limitations (Bennet, 2004; Cummings, 2017). This not only enriches their understanding of cultural diversity but also prepares them to utilize technology in classroom teaching. The use of technology in teacher training also allows them to develop new skills that can be implemented in teaching (Finkelstein, 2020). For instance, through training with digital tools and applications, teachers can learn how to integrate technology into their teaching to enhance student engagement. Technology also provides opportunities for teachers to explore more creative teaching methods, such as project-based learning, flipped classrooms, and collaborative learning involving students from around the world (Zhao, 2012).

Technology enables teachers to be more flexible in accessing teaching materials and innovative teaching tools (Papadopoulou, Palaiologou, & Karanikola, 2022). For example, by using online educational platforms, they can attend training courses or obtain teaching materials tailored to their needs. This use of technology also allows for more effective and engaging teaching, integrating multimedia, interactive applications, and game-based learning tools that are in line with current trends (Bennet, 2004; Deardorff, 2006). The combination of experience-based approaches and technology-based training has proven highly effective in equipping teachers with the global competencies required for teaching in 21st-century classrooms. These methods not only enrich teachers' understanding of an increasingly global and interconnected world but also prepare them to become more adaptive, creative, and responsive educators to the needs of students from diverse backgrounds. With the right training, teachers will be able to guide students to become individuals who are not only competent in academics but also possess the skills and understanding necessary to face the complex global challenges of today (Tuncer & Kaya, 2021; Cummings, 2017).

### **Challenges in Implementing Global Competence**

The implementation of global competence in teacher training faces several challenges that can hinder its effectiveness. One of the primary challenges identified in this study is the lack of relevant training resources. Many teacher training programs still do not provide materials or modules specifically focused on developing global competence. However, to prepare teachers to teach the skills needed to address global challenges, training based on the development of global competence is crucial. The limited availability of such resources makes it difficult for many teachers to understand how to integrate global issues into their curricula. Without structured and



in-depth training materials, the development of global competence becomes suboptimal (Liu & Shi, 2019).

Another challenge is the limited funding for effective training programs. Programs that are effective often involve cross-cultural simulations, international collaborative projects, or international courses that require significant funding. Educational institutions in developing countries often struggle to allocate sufficient funds for such training. In many cases, the costs associated with international travel, technology, and experienced facilitators make these training programs unaffordable. This limitation restricts opportunities for many teachers to attend training that could expand their understanding of global competence and how to implement it in teaching (Orr, 2021).

A further challenge is the lack of trainers or instructors with expertise in global competence. Expertise in global competence is not a skill commonly possessed by most teacher trainers, especially in countries that have not yet experienced much globalization in education. Trainers skilled in teaching that integrates cross-cultural aspects and global issues are still relatively scarce, affecting the quality of training provided (Sandholtz & Ringstaff, 2020). Additionally, the implementation of global competence is hampered by the lack of understanding of its urgency at the education policy level. Many educational systems in developing countries remain focused on teaching basic academic skills. Although important, the development of global competence is often considered a more "optional" or "secondary" issue compared to more traditional academic skills. Educational policies that do not support the integration of global competence into the curriculum exacerbate the difficulties in its implementation. Therefore, a paradigm shift in educational policy is needed to accommodate this need, along with greater commitment from governments and educational institutions (Chen & Lee, 2018).

External challenges related to students' readiness to engage with global competence-based learning often emerge. In many countries, students may not be accustomed to content or teaching methods that emphasize global issues or cultural diversity. Teachers, therefore, need to have the appropriate skills and teaching strategies to address differences in understanding and readiness among students. Without a suitable approach, global competence may not be well received by students and cannot be implemented effectively in the classroom (Kirkwood & Price, 2020). Additionally, challenges related to infrastructure and technology also pose obstacles in



implementing global competence. Technology-based training programs or those involving international collaboration require adequate digital infrastructure. However, many schools or educational institutions still lack access to advanced technology, such as the hardware and software needed to support remote training or collaborative learning. The lack of access hinders effective training, especially in more remote or less developed areas. Overall, the challenges in implementing global competence in teacher training are diverse, ranging from limitations in training resources, funding, and competent trainers, to educational policies and students' readiness. Addressing these challenges requires collaboration between governments, educational institutions, and the private sector to create more inclusive and affordable training programs and to support the development of infrastructure that supports technology-based training. By overcoming these challenges, it is hoped that global competence can be more effectively integrated into teacher training and education as a whole.

### **Impact of Global Competence Training on Teachers and Students**

This research highlights that global competence training has a significant positive impact on both teachers and students. It not only enhances the teaching capacity of teachers but also contributes significantly to the development of students' skills and character, which are essential in facing global challenges (Sears, 2011). Training focused on managing diversity and understanding global issues enriches both teachers' and students' perspectives on global topics that are increasingly relevant in today's education system (Yang & Montgomery, 2013). For teachers, the primary impact of global competence training is the improvement of their ability to manage diversity in the classroom. Teachers trained in global competence are better able to create an inclusive learning environment where every student feels valued and accepted, regardless of their cultural, religious, or social background. This is crucial in an increasingly multicultural world where students come from diverse backgrounds. An inclusive classroom encourages students to feel more comfortable and open, which in turn increases their participation in the learning process (Minick & Seeberg, 2012). Teachers are also more confident in teaching relevant global issues, such as climate change, social inequality, and sustainability, which helps build students' social awareness about the problems affecting the world (Elmeroth, 2009).

Teachers trained in global competence are more skilled at facilitating classroom discussions that involve multiple perspectives. They are adept at utilizing learning methods based on



international collaboration, such as cross-cultural projects or global debates, that allow students to think critically about global issues and see them from different viewpoints (Banks, 2004). This also enhances students' communication skills, which are increasingly important in our interconnected world. The impact of global competence training on students is also highly significant. Students taught by teachers with global competence show improvements in various important skills. One of these is critical thinking. Students are encouraged to think more deeply and question various global issues, enriching their perspectives on the world (Moule, 2012). This process encourages them not only to passively receive information but also to evaluate, analyze, and seek solutions to existing problems.

In addition to critical thinking, global competence training also helps students develop social empathy. By understanding cultural diversity and global challenges, students become more sensitive to differences and more open to others' viewpoints. This is crucial in fostering tolerance and cooperation in an increasingly connected world. Students also become more open to values like social justice and sustainability, helping them become more responsible and caring global citizens (Sears, 2011; Yang & Montgomery, 2013). Another skill that develops in students is the ability to work in cross-cultural teams. Collaborative international projects or classroom activities involving students from different backgrounds provide firsthand experience working with people who have different worldviews and life experiences. This experience is invaluable, especially in today's global workforce, where the ability to work in diverse teams is increasingly in demand (Minick & Seeberg, 2012). By learning how to collaborate with people who have different values and perspectives, students prepare themselves to face broader global challenges.

Global competence training has a very positive impact on the development of students' character and skills. It shows that effective training for teachers in integrating global competence into teaching can significantly contribute to the formation of students who are not only academically intelligent but also have a broader understanding of the world and can adapt to the increasingly complex social, cultural, and environmental diversity (Elmeroth, 2009; Banks, 2004a). By preparing teachers to teach these global skills, we open greater opportunities for students to develop into individuals ready to face global challenges and make a positive impact in their communities.



## **Role of Policy and Institutional Support in Integrating Global Competence into Teacher Training**

This research underscores the crucial role of educational policies that support the integration of global competence in teacher training. Well-structured policies are key to guiding teacher training programs and ensuring that educators are equipped with the skills needed to address global challenges in the 21st century. Countries such as Finland and Singapore, which have successfully implemented global competence-based education policies, show significant outcomes in preparing teachers with relevant knowledge and skills (Sardiman, 2007; World Bank, 2014). These countries focus not only on academic knowledge but also on the development of social, emotional, and cultural skills necessary for managing diversity and addressing global issues (National Teacher Education Institute, 2015; National Educational Assessment and Accreditation Agency, 2020). The education system is recognized for its holistic approach, which integrates teacher training with policies that support the development of global competence. Teachers are trained to face global challenges with critical thinking skills, adaptability to change, and cross-cultural understanding. Finland's teacher training programs also emphasize understanding diversity and the social challenges faced by students from various backgrounds, enabling teachers to create inclusive learning environments responsive to global needs (UNESCO, 2015; Indonesian Ministry of Education, 2021).

Similarly Singapore's education policy encourages teachers to integrate global values into their teaching. Teacher training in Singapore places a strong emphasis on international collaboration, cross-cultural communication skills, and global issues such as climate change, social inequality, and technological progress (International Education Institute, 2018). Singapore's government works closely with international organizations to provide quality teacher training, ensuring that educators are prepared to teach in ways that are relevant and responsive to global challenges. Despite the success of countries like Finland and Singapore, the research also highlights challenges in other countries that have not given adequate attention to the importance of global competence in teacher training. In many developing countries, educational policies still focus primarily on academic and technical aspects, without enough space for the development of global competencies (Sardiman, 2007). This lack of a global perspective in education policy often creates barriers to the effective implementation of teacher training programs.



Institutional and governmental support is essential to ensure that global competence-based policies are effectively applied in teacher training. In many countries, limitations in funding, a shortage of qualified trainers, and the lack of facilities for international training are significant obstacles to implementing effective teacher development programs (National Teacher Education Institute, 2015). Without adequate support from governments and educational institutions, global competence training for teachers will remain difficult to implement. global competence-based educational policies require close collaboration between various stakeholders, including government bodies, educational institutions, and international organizations. This collaboration can provide the necessary resources and platforms for implementing quality teacher training programs (World Bank, 2014). Increasing awareness about the importance of global competence among policymakers is also needed to ensure that global perspectives are more deeply integrated into national educational systems. Educational policies that support global competence are pivotal in improving the quality of teacher training. Countries that have successfully implemented such policies demonstrate that developing global competencies in teachers not only enriches the teaching and learning process but also prepares students to be more competitive and responsive to global changes (Indonesian Ministry of Education, 2021). However, the challenges faced in many countries require greater attention from both governments and educational institutions to support the development of more structured and comprehensive policies.

### **Strategies to Overcome Challenges**

To address the challenges in integrating global competence into teacher training, this research proposes several strategies that can be applied to ensure the success of this competency development. One key strategy is the development of training modules focused on global competence. These training modules should be designed with an interactive and experiential approach, allowing prospective teachers not only to learn the theory of global competence but also to understand it within the practical context of their teaching. Experience-based approaches such as cross-cultural simulations, global case studies, and collaborative projects are critical in this regard. Bourke, Ryan, and Lidstone (2018) demonstrate that such experience-based strategies support a deep understanding of diversity and strengthen critical thinking skills, which are highly relevant in global education contexts (Bourke et al., 2018).



In addition to module development, the second important strategy is to strengthen collaboration between educational institutions and international organizations. In many cases, resource limitations are one of the biggest barriers to effective training. Therefore, cross-country collaboration can be an effective solution. One example of collaboration that can be applied is teacher exchange projects or cross-country online training. Dolan (2016) notes that online training programs provide broader access to prospective teachers, especially in remote areas, by leveraging technology to overcome geographical and cost barriers (Dolan, 2016). This approach also opens opportunities for enriching cross-national experiences, as various cultural and educational perspectives can be introduced in these training sessions. Such training programs not only enhance the understanding of global competence but also provide opportunities to build international networks in the field of education. The OECD (2019) emphasizes that cross-country collaboration can accelerate the adoption of best practices in teacher training and promote the spread of educational innovations.

In addition to the development of training modules and international collaboration, ensuring adequate funding is a key factor in supporting the success of training programs. Limited funds often serve as a major obstacle to organizing high-quality training programs, particularly in developing countries. Reimers and Chung (2016) highlight the importance of support from governments and international organizations to ensure the sustainability of global competence-based teacher training programs (Reimers & Chung, 2016). Governments also need to allocate more funding for global education at the national policy level. This includes creating policies that support the integration of global competencies into teacher training curricula and providing incentives for schools or educational institutions that succeed in organizing global competence-based training programs. Schleicher (2020) emphasizes that progressive education policies should include adequate funding elements and clear implementation strategies to improve learning outcomes (Schleicher, 2020).

To ensure success in integrating global competence into teacher training, a comprehensive approach is needed. The development of experiential-based modules, international collaboration, and the provision of adequate funding are three critical pillars that can overcome existing challenges. Sjöberg (2018) notes that initiatives involving sustainable curriculum development and inclusive teacher training significantly contribute to achieving global competence goals (Sjöberg,



2018). It is hoped that teachers will be equipped with the skills and knowledge they need to shape students who are prepared to face global challenges in the future. UNESCO (2018) underscores the importance of teacher training in creating a generation of students who can think critically and act globally, thereby strengthening the role of education in achieving sustainable development. The final step is personalizing training to meet individual teacher needs. Zhao (2018) suggests that personalized approaches can yield more effective results by allowing teachers to develop skills based on their own teaching context, making it more relevant and directly impactful in their classrooms (Zhao, 2018).

## **CONCLUSION**

This study concludes that experiential training and the use of educational technology are effective methods in developing global competence among prospective teachers. The practical experiences provided through cross-cultural simulations, global case studies, and collaborative projects allow teacher candidates to gain a deeper understanding of diversity and global issues. As a result, teachers who have undergone such training demonstrate improved skills in managing classroom diversity and integrating global issues into the learning process. Additionally, students taught by teachers with strong global competence show improvements in critical thinking, problem-solving abilities, and social empathy—key skills necessary for success in the 21st century. The study also reveals significant challenges hindering the implementation of these training programs. Resource limitations, funding shortages, and a lack of skilled trainers are major barriers, especially in developing countries. This highlights the need for educational policies that focus on providing adequate resources, allocating larger budgets for global education, and training more educators. Furthermore, the development of interactive training modules and cross-national collaborations are recommended strategies to enhance the effectiveness and extend the reach of these training programs.

The study also emphasizes the importance of a holistic approach to educational reform. This reform should not only address teacher training but also foster national policies that support the integration of global competencies into educational curricula. The goal is to produce educators who are prepared to meet the needs of multicultural and dynamic classrooms in the 21st century and to build an inclusive and sustainable society. Collaboration between governments, educational



institutions, and international organizations is crucial in achieving these objectives. this research offers strategic guidance for overcoming the challenges in developing teachers' global competence. With policy support, adequate funding, and innovations in educational technology, these training programs can be widely implemented, benefiting not only educators but also students who will become the leaders of the future in an increasingly interconnected world.

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