

# A Comparison of Pre-service Teacher Educational Modes: Taking China, the United States, Canada and Singapore as Examples

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## Abstract

In globalization, pre-service teacher (PST) educational modes in different countries reflect unique cultures, educational traditions and social needs. In-depth comparisons and analyses of these modes can provide cross-cultural educational insights to help countries learn, borrow and innovate in teacher education. This study explores and compares PST educational modes in China, the United States, Canada and Singapore, with particular attention to the characteristics, strengths and limitations of these modes and how they are adapted to their respective cultural and social needs. A comparative analysis approach is adopted to analyze these countries' educational modes, cultural backgrounds and policy environments through systematic collection and collation of relevant literature and then to draw out the differences and commonalities of the different methods. It is found that the PST educational modes in each country are closely related to their cultural and educational traditions and reflect a shift in the role of teachers from traditional knowledge transmitters to facilitators of learning, and promoters of technology play a vital role in teacher education and pose challenges. Countries have recognized the importance of lifelong learning in developing the teaching profession. These findings emphasize the importance of cultural differences in educational practices, and educational policymakers must understand and respect these differences when designing teacher education policies and procedures. At the same time, there is a need to focus on the impact of technological advances on education and to improve teacher resilience and the quality of teaching through policies and practices that support lifelong learning.

**Keywords:** Pre-Service Teachers, Teacher Education, Educational Modes, Comparison

## Introduction

In the context of globalization, education systems and their training methods have gradually become key indicators of national competitiveness. The PST educational mode plays a decisive role in this, especially in training quality educators. As the old saying goes, "Teachers are those who preach, teach and explain", emphasizing teachers' critical role in imparting knowledge, guiding students and answering their doubts. And quality education,

undoubtedly, is a solid foundation for the sustainable development of every country (Yang & Chen, 2021; Yang, 2021; Fägerlind & Saha, 2016). Because teachers are the direct implementers of education, the level of their pre-service education and training directly determines the quality of nurturing the next generation (Zuo & Wu, 2019; Van Katwijk et al., 2021).

Although past research has extensively explored single-country modes of PST education, such as Finland, which has been intensively studied for the outstanding performance of its students in international assessments Malinen et al (2021), and PST education in China, the United States, Canada, and Singapore have also received much attention. However, there are still fewer comprehensive and comparative studies on Chinese and foreign modes. Each of these nations has unique educational philosophies and practices that significantly influence teacher preparation. By examining these varied modes, this research aims to uncover insights that could lead to the enhancement of teacher education globally. The comparative analysis is not only crucial for understanding different educational paradigms but also for identifying best practices that can be adapted in various contexts. This study aims to fill this gap by revealing the characteristics and differences of PST educational modes across countries through in-depth analyses and comparisons to provide valuable references for policymakers. Next, we will start by exploring the basic concepts of PST education, further analyze in detail the educational modes in China and other typical countries, and then conduct comparative analyses, finally drawing conclusions and making recommendations.

At the same time, in the context of globalized education, how PST educational modes can adapt to and reflect the educational needs and cultural characteristics of different countries has become an issue of concern (Yu & Liu, 2022). While studies have been conducted to explore PST educational modes in specific countries, there is a relative lack of in-depth comparative studies between methods in countries such as China, the United States, Canada, and Singapore (Milner, 2020). Such cross-country comparisons reveal differences in educational modes and reflect the diversity of teacher education in different social, economic and cultural contexts (Zhu, 2016).

Current literature focuses on single-country case studies and less on international comparative perspectives, especially in direct comparisons of teacher educational modes in China and Western countries (Wen, 2021). This limitation reduces the opportunity to understand how different education systems interact and learn from each other and restricts the theoretical development of global teacher education practice. Therefore, this study aims to fill this gap by comparing PST educational modes in China, the United States, Canada, and Singapore to provide a comprehensive perspective in a multicultural and socio-economic context. The purpose of this study is to explore the characteristics and effectiveness of each mode and its role in the education systems of different countries by comparatively analyzing the PST educational modes of these countries. Through this comparison, the study seeks to enhance the understanding of teacher education strategies and practices in different education systems and provide theoretical and empirical support for improving and innovating teacher education globally.

Finally, this study will provide an essential addition to the existing modes of teacher education, and the findings are not only of theoretical significance but also of practical guidance for educational policymakers, educational practitioners, and researchers in teacher education, especially at a time when the pursuit of diversity and quality improvement in education is at stake. The two editions can be fused to express the importance and objectives of the study more comprehensively and coherently.

**Literature Review**

PST education is the education and training provided to prospective teachers before they formally enter the workforce in the field of education. It is an integral part of the teacher education system and closely relates to teachers' professional quality, educational methods and skills. Countries and regions have developed their unique modes of PST education based on their specific education systems, cultural backgrounds and social needs. This section will provide a detailed overview of teacher educational modes in China, the United States, Canada and Singapore. It will begin by exploring teacher educational modes in China and then move to the United States, Canada and Singapore. These overviews provide insights into each country's education system, teacher training, and related policies. These detailed analyses offer insights into each country's teacher educational mode and provide a basis for subsequent comparative studies.

**China's Teacher Educational Mode**

China's PST educational mode has a deep history and unique cultural background. Influenced by Confucianism, China regards education as the transmission of morality and expects teachers to be knowledge transmitters and moral role models (Zheng, 2016). This cultural concept has profoundly influenced PST education in China.

In China, colleges of education and teacher training colleges play a central role. They provide comprehensive training, including courses in basic pedagogy, psychology and specialization, which provide teachers with a solid theoretical foundation. Internships and practical experiences, on the other hand, are highly valued, and students are required to undergo long educational training in natural educational settings after completing theoretical courses to ensure that they are adequately equipped to teach (Cao et al., 2021). In addition to traditional pedagogical methods and strategies, PST education in China also emphasizes the moral integrity of teachers. Educators must be ethical role models for their students and pass on the Chinese nation's fine traditions. Moral education is important in teacher training programs (Zhao, 2018).

With China's education reform deepening, PST education is constantly being updated and innovated. The state emphasizes the cultivation of "double first-class" teachers, stressing both first-class educational concepts and first-class educational skills (Chen & Cao, 2020). At the same time, internationalization has become a trend, introducing foreign academic concepts and methods to train teachers with an international perspective (Feng, 2016). China's pre-service education system is shifting from being dominated by traditional teacher-training colleges to a more open and pluralistic approach. It includes non-teacher training colleges joining the ranks of teacher education and a gradual upward shift in the mode of training that emphasizes the coordinated development of the three levels of specialization, undergraduate and postgraduate studies (Yang & Qu, 2019). This shift has also led to the gradual movement of teacher education from pre-service one-time training to lifelong education and socialization of learning, emphasizing both pre-service and post-service and the importance of academic and non-academic education (Li & Li, 2020).

China's PST educational mode synthesizes traditional, modern, local, and international education concepts, providing a solid foundation for training highly qualified teachers. This system constantly evolves and improves to meet the new education reform and internationalization situation.

**Teacher Educational Modes in the United States**

The professional accreditation system for teacher education in the United States has undergone significant changes, primarily due to the inadequacy of the traditional accreditation system and the urgent need to improve the quality of physical education teacher preparation (Darling-Hammond, 2010). These changes include three main aspects: restructuring the accreditation body, updating the accreditation standards, and optimizing the accreditation process.

In terms of the reorganization of accrediting bodies, the American Association of Colleges for Teacher Education (AACTE) proposed a plan to merge the National Council for Accreditation of Teacher Education (NCATE) and the Teacher Education Accreditation Council (TEAC). In 2013, these two bodies were officially merged to form the Council for Accreditation of Teacher Preparation Accreditation Commission (CAEP) (Peck et al., 2014). The new accrediting body, CAEP, adopted a clear vision and mission and emphasized outcomes- and evidence-based accreditation and a focus on quality assurance and continuous improvement in teacher education (Romanowski, 2020; Cochran-Smith et al., 2016). Regarding updates to accreditation standards, the new 2016 standards emphasize outcomes assessment and the real-world impact of educational outcomes, focusing on the impact on P-12 student learning (Hollins, 2018). These standards emphasize learning outcomes and the actual effect of these outcomes on primary and secondary students. The 2016 standards have changed regarding dimensions and number of indicators, focusing more on presenting results and evidence (Welton et al., 2015). In addition, in 2017, the Society for Health and Physical Education America (SHAPE America) released new standards for physical education teachers, emphasizing teacher educators' relevance to the learning of primary and secondary school students, with more nuanced and operationalized indicators. Optimization of the certification process included the creation of an Accreditation Information Management System (AIMS), which improved data analysis capabilities and certification efficiency (Hollins & Debnam, 2017). CAEP also provided multiple pathways to certification, allowing preparation providers to choose different certification methods based on their characteristics (Sawchuk, 2013).

These changes and optimizations aim to ensure that the professional accreditation system for physical education teacher education in the United States is more closely aligned with actual educational needs and focuses on outcomes and evidence to improve the quality of teacher preparation. At the same time, the U.S. federal government, states, teacher preparation professional bodies, and various education reform organizations and individuals are actively engaged in practice-oriented teacher education reforms to advance the field (Zeichner, 2014).

**The Canadian Mode of Teacher Education**

The Canadian way of PST education is known for its diversity and flexibility, exceptionally accommodating multiculturalism and lifelong learning (Childs et al., 2011). As an immigrant country with a multicultural background and a federal political system, teacher education in Canada has evolved over the decades to create a scientific and flexible design of teacher education and training that cuts across multiracial and multicultural conflicts and significantly improves the quality of the teaching force (Gambhir et al., 2008).

Canada's decentralized education system, in which each province has independent legislative and regulatory authority over education, has led to diverse teacher education reforms and differences in provincial educational objectives (Gambhir et al., 2008). In addressing the challenges of multiculturalism, Canada's teacher education reform emphasizes the development of multicultural awareness among teacher educators to accommodate the

needs of educators from different social classes (Childs et al., 2011). Canada also emphasizes the importance of lifelong learning in teacher education and has established a diverse teacher evaluation and assessment mechanism and a rigorous teacher qualification system. Canada has implemented the Teacher Excellence Initiative to promote teacher excellence, which aims to develop an innovative and engaged teaching force to achieve the vision of student-centered education (Campbell et al., 2017). Teacher education in Canada also encompasses the need for fundamental education reform, emphasizing personalized learning and professional development for teachers (Cherkowski & Walker, 2018).

Regarding teacher selection, Canada operates a rigorous student selection process (Crocker & Dibbon, 2008), with no nationally standardized teacher exams and comprehensive selection of teacher candidates by provincial colleges of education (Russell, 2020). Regarding curriculum management and content design, Canada has an open and flexible strategy (Beck & Kosnik, 2019). There are no uniform professional and curriculum standards for teachers, and provincial ministries of education set the curriculum according to their needs (Russell & Martin, 2018). Teacher education curricula consist mainly of subject courses, education specialization courses, and general education courses and incorporate many indigenous cultural elements, with particular attention paid to the educational needs of Aboriginal peoples.

Teacher preparation in Canada involves parallel, continuous and cooperative systems to meet educational and learning needs (Crocker & Dibbon, 2008). Both pre-service internships and post-service practical training are practice-oriented, emphasizing integrating teachers' practical experience and theoretical understanding (Maandag et al., 2007). Post-service practical training adopts a 'whole teacher' philosophy, emphasizing the integration of teaching and management (Mayer, 2014). Regarding quality assurance in teacher education, Canada has established a quality-focused teacher performance evaluation system (Campbell et al., 2017).

### **Singapore's Teacher Educational Mode**

Singapore's achievements in the field of teacher education have been recognized as the 'cradle of teacher professionalism', with its unique 'teacher development mode' that builds a teacher education system based on philosophy, principles and practice, with a focus on the development of teachers' multifaceted competencies (Low et al., 2019).

Singapore's teacher growth mode focuses on teachers' professional well-being and constructs a multi-pronged "diamond mode" that includes "three foundations", "four goals", and "five attributes". These include "three foundations", "four goals", and "five attributes". The three foundations have the concepts of nurturing (wisdom, virtue, good thinking and good behavior), the principles of subjectivity, collaborative learning and flexible and varied activities, as well as the view of practice as an essential attribute of teacher education, a key component and a pathway for development (Low et al., 2019). The four levels of goals refer to the 21st Century Pan-Competencies, Emerging Competencies, Social and Emotional Competencies, and Core Values, which reflect the full range of 21st Century student competencies. The five categories of traits relate to ethical educator, professional competence, collaborative learner, transformational leader, and community builder (Hairon & Dimmock, 2012). The four levels of goals for student development refer to Singapore's education system that values the holistic development of students, including pan-competencies, emerging competencies, social and emotional competencies, and core values. These goals cover everything from self-awareness, self-management, social awareness,

relationship management, and decision-making responsibility (Ng, 2019). Singapore's teacher growth mode emphasizes lifelong learning and continuous learning. Teachers are encouraged to learn continuously and to keep abreast of the knowledge and skills required by the times. Teachers' professional development is viewed as a long-term, multi-stage process that requires a smooth transition at each stage to maximize professional development (Hairon et al., 2017).

Singapore's teacher educational mode emphasizes teachers' holistic development and lifelong learning, and its multidimensional approach to education philosophy and practice provides valuable lessons for teacher educational modes in other countries and regions. By examining its system, insights into its success can be gained to inspire other countries' strategies and directions in teacher preparation.

### **Methodology**

This study adopts the comparative analysis method of qualitative case study (Eisenhardt, 1989) to explore and compare in-depth the PST educational modes in China, the United States, Canada, Singapore and other countries. The characteristics, strengths and weaknesses of their respective teacher educational modes and their corresponding educational policies and practices are understood and analyzed by comparing different countries and cultural contexts. The core of this methodology is to identify and explain the differences and commonalities in the countries' teacher educational modes and how these reflect the countries' educational philosophies, cultural values and levels of socio-economic development.

This study systematically collected and collated relevant literature and data in PST education from China, the United States, Canada and Singapore. The process focused on ensuring the diversity and authority of data sources to provide a more comprehensive and accurate picture of teacher education in each country. Key elements that were given particular attention included the educational objectives, curriculum content, teacher training and assessment standards in each country, which are the basis for understanding and comparing different modes of teacher education.

In the process of analyzing the data, each country's cultural, social and policy contexts were explored in depth and analyzed in terms of how these contexts influence their teacher educational modes. This analysis enabled a better understanding of the characteristics of each country's teacher educational mode and their place in the global context of education. Differences and commonalities between teacher educational modes in different countries were compared and analyzed. This step aims to provide deeper insights by revealing the reasons and implications behind these differences and commonalities. It helps to understand specific practices in teacher education in different countries but also helps to identify possible opportunities for learning and cooperation across borders. Our comparative analysis based on qualitative case studies presents conclusions and recommendations for future teacher education development. These recommendations are intended to guide future policymakers and education practitioners, helping them learn from these comparisons and apply them to improving teacher education in their respective countries.

### **Findings and Discussion**

After an in-depth study of teacher educational modes in various countries, the researcher has identified several vital issues covering the diversity and cultural influences on educational modes, the evolution of teachers' roles and educational goals, the use of technology in

teacher education, and teacher professional development and lifelong learning. These findings contribute to a better understanding of the current state of teacher education in different countries and provide insights to guide the future direction of educational policy and practice. By studying and discussing these critical issues, it is possible to better respond to the academic challenges posed by globalization and the technological revolution and to contribute to the continuous improvement and development of the education ecosystem.

### **Diversity of Educational Modes and Cultural Influences**

PST educational modes in China, the United States, Canada and Singapore display a marked diversity. This diversity is reflected not only in program structures and teaching methods but also in different understandings of teachers' roles and professional expectations.

The American mode of teacher education tends to emphasize practical skills and the application of educational technology, while the Chinese way focuses more on theoretical learning and traditional teaching methods. On the other hand, the Canadian mode demonstrates tolerance for multiculturalism and exploration of innovative educational approaches, while the Singaporean way emphasizes lifelong learning and holistic teacher professional development. Culture plays a crucial role in shaping these academic modes. Each country's history, social structure and values have left a unique imprint on its PST educational mode. In China, Confucianism heavily influences teacher education, which emphasizes the importance of morality and personal integrity.

On the other hand, the teacher educational mode in the United States reflects its cultural tendency towards pragmatism and individualism, emphasizing critical thinking and personalized learning. Canada's multicultural background promotes respect for and tolerance of different cultures and teaching methods. On the other hand, Singapore's mode reflects a concern for the country's future and global competitiveness, emphasizing innovation and international perspectives.

A comparative analysis of teacher educational modes in these countries clearly shows how culture influences educational practice and policy. This understanding is essential for promoting cross-cultural understanding and cooperation in a globalized educational environment. It suggests that the influence and importance of cultural factors must be considered when designing and implementing teacher education strategies.

### **Evolution of Teachers' Roles and Educational Goals**

A notable finding in this study is that the perception of the role of the teacher has changed significantly over time and in societies across countries. Traditionally, teachers were viewed as transmitters of knowledge and moral guides, but modern society places greater emphasis on the role of teachers as facilitators of learning and promoters of innovation.

Teacher educational modes in the United States and Canada have come to emphasize the role of the teacher as a guide to learning and fulfilment of students' individual needs. In Singapore, teachers are seen as key players in the holistic development of students' abilities, imparting knowledge and stimulating students' creative and critical thinking skills. In China, too, in recent years, there has been a growing emphasis on teachers as mentors of students' lifelong learning and personal development.

Educational goals have evolved accordingly. Previously, educational purposes usually focused on knowledge transfer and academic achievement. However, modern education emphasizes developing students' overall competencies, such as problem-solving skills, teamwork and social responsibility.

In Canada, teacher education focuses on developing students' critical thinking and social engagement skills. The education system in the United States also progressively emphasizes the holistic development of students, including emotional and social skills. In Singapore, particular emphasis is placed on developing students' global competitiveness, including cross-cultural communication skills and international outlook. Teacher education in China is strengthening the development of innovative and practical skills to meet the needs of a rapidly changing society and economy.

These evolutions in teachers' roles and educational goals reflect the far-reaching impact of social, economic and technological changes on education. In the context of globalization and the information age, teachers need to acquire traditional teaching skills and the ability to guide students to survive and thrive in a complex and changing world. These changes have created new demands and challenges for developing and implementing teacher education strategies.

### **Use of Technology in Teacher Education**

The use of technology is significant in the current global trend in teacher education. Countries are actively exploring ways to use technological tools and resources to improve teacher training and enhance the quality of teaching and learning. The spread of technology has changed teaching methods and opened up new avenues for teacher professional development.

In the United States, teacher education institutions have widely adopted online learning platforms, virtual reality (V.R.) and augmented reality (A.R.) technologies to simulate teaching environments and provide richer teaching practice experiences. Digital media and educational software are also increasingly used to facilitate teachers' continuous learning and professional growth. Teacher education in Canada has also shown innovation in integrating technology, particularly in distance education and online collaborative learning. It is crucial in facilitating communication and collaboration among geographically dispersed groups of teachers. In Singapore, the education department has implemented various programs to encourage teachers to use technological tools, such as establishing e-learning communities and developing online course resources, all of which aim to enhance the effectiveness of teachers' teaching and students' learning experiences. China is also increasingly utilizing I.T. in teacher education. It includes online courses, educational platforms for distance learning, and data analysis tools to assess teaching effectiveness and student performance. The use of technology in teacher education has not only increased the flexibility and accessibility of teaching and learning but has also facilitated teachers' understanding and acceptance of educational innovations. This trend emphasizes teachers' competence in the use of technology, which is essential to prepare them for an increasingly digital educational environment.

The widespread use of technology is reshaping the face of teacher education globally. It provides teachers with new tools for learning and teaching and brings about more profound changes in the education system. Therefore, understanding and mastering educational technology has become a critical part of modern teachers' professional development.

### **Teacher Professional Development and Lifelong Learning**

In today's rapidly changing educational environment, lifelong learning has become a key component of teacher professional development. PST educational modes in various countries



increasingly emphasize the importance of lifelong learning for teachers to keep pace with evolving educational needs and technological advances.

In the United States, teachers' continuing education and professional development are often delivered in various ways, such as through online courses, seminars and workshops. These activities aim to update teachers' knowledge base and improve their pedagogical skills and ability to adapt to new teaching technologies. On the other hand, Canada encourages mutual support and learning among teachers by establishing teacher professional development networks and communities. These networks and districts provide a platform for sharing best practices and innovative teaching methods. In Singapore, teacher professional development is viewed as an ongoing process that includes regular assessment and feedback and the formulation and implementation of individual development plans. China's teacher education system is also progressively reinforcing the concept of lifelong learning and supporting teachers' continuous growth by providing diverse in-service training and professional development programs. Technology plays an essential role in promoting lifelong learning for teachers. Tools such as online learning platforms, virtual communities and educational applications not only make learning resources more abundant and accessible but also provide the flexibility to enable teachers to learn according to their own time and needs.

Lifelong learning and professional development of teachers is a crucial aspect of teacher education, which not only contributes to improving teachers' competences but is also essential for enhancing the quality of the education system. Therefore, building systems that support teachers' lifelong learning and development should be a vital consideration for education policy formulation and practice.

### **Discussion**

The comparative analyses in this study have revealed several key points important for understanding and developing teacher educational modes in a global context.

There is a strong link between teacher educational modes and each country's cultural and educational traditions. This finding highlights that educational practices are not only influenced by techniques and methods but are more profoundly shaped by culture and values. This realization suggests that any attempt to borrow or adapt foreign modes of education must take complete account of local cultural specificities and needs to ensure educational practice's effectiveness and relevance. There is a shift in the understanding of the role of teachers across countries, from traditional knowledge transmitters to facilitators of learning and promoters of innovation (Chong & Kong, 2012). This shift reflects the increasing emphasis in the global education community on developing students' critical thinking, creativity, and ability to adapt to future societies. It requires teachers to impart knowledge, stimulate students' curiosity and independent thinking skills, and provide them with a learning environment that supports exploration and innovation (Chong & Kong, 2012). In terms of the use of technology, while technology has brought convenience and opportunities for innovation in teacher education, it has also introduced some challenges. The use of technology may have exacerbated disparities between different groups, especially in less-resourced areas (Philipsen et al., 2019). In addition, teachers need to acquire new skills to use technology effectively and personalize teaching while maintaining the quality of education (Bakir, 2016). Therefore, teacher education institutions and policymakers need to pay close attention to these challenges and take steps to ensure that all teachers have equitable access to and utilization of educational technology resources (Philipsen et al., 2019). The study found that countries focus on lifelong learning and professional development of teachers. With the

rapid changes in the field of education, teachers need to constantly update their knowledge and skills to keep their teaching relevant and effective. Education systems must provide continuous learning and development opportunities to help teachers cope with new educational challenges and technological changes.

Based on the above findings, education policymakers and practitioners must understand and respect cultural diversity in educational practices and consider these differences when designing teacher education policies and procedures. At the same time, they also need to be attentive to the impact of technological advances on education and to improve teacher resilience and the quality of teaching through policies and practices that support lifelong learning (Cuervo, 2016). Furthermore, the direction of teacher education should be geared towards building an inclusive, innovative and sustainable educational ecosystem in which teachers serve as the central force driving continuous improvement and development of education

### **Conclusion**

This study has revealed, through comparative analyses, the differences and commonalities between PST educational modes in different countries, noting how these modes are influenced by their respective cultural and social contexts. The study has also carefully considered its limitations, such as the limitations of data sources and the possible impact of cultural diversity on the results. The contribution of this study is that it provides new comparative perspectives on global teacher educational modes and offers valuable insights into educational policy-making and practice. For future research directions, this paper suggests expanding the scope of the study to explore in depth the influence of cultural factors and considering the role of emerging technologies.

### **Summary of the Study**

By comparatively analyzing PST educational modes in China, the United States, Canada and Singapore, this study reveals significant differences in these modes' structure, content and pedagogy. These differences reflect the characteristics of each country's education system and the profound influence of different cultural and social contexts on educational practices. It is worth noting that although each country's mode of teacher education has its characteristics, they all share a typical reflection of the role of the teacher from traditional knowledge transmitter to facilitator of learning and promoter of innovation. Technology plays an increasingly important role in teacher education in all the countries studied, although its challenges are equally significant. The study also found that lifelong learning is at the center of modern teacher professional development, reflecting the high priority given in education to continually updating and upgrading teachers' professional skills.

The study provides an in-depth understanding of teacher educational modes in different countries, highlighting the cultural and social factors that need to be considered in the design and implementation of teacher education policies, as well as the complexity and diversity of educational practices in the context of globalization.

### **Limitations of the Study**

In reflecting on this study, limitations need to be identified.

While comparative analyses provide insight into understanding PST educational modes in different countries, the choice of data and literature may affect the breadth and depth of the investigations. By relying on publicly available information, this study may not have been able to comprehensively cover all relevant aspects of each country, especially those educational practices and policies that are less frequently discussed or publicly reported. Cultural factors play an essential role in analyzing academic modes. However, the complexity and diversity of cultures mean that any attempt to simplify or generalize may result in some nuances being overlooked. Consequently, the analyses of cultural influences in this study may not fully reflect each country's unique cultural contexts and social structures. The temporal limitations of this study should not be overlooked. Global trends and national policies continuously influence educational patterns and may change over time. Therefore, the findings and conclusions of this study may need to be reassessed and updated to reflect the latest developments in education.

While this study provides a valuable comparative perspective on PST educational modes in different countries, it also has limitations regarding data scope, cultural interpretation and time sensitivity. These limitations should be seen as potential starting points for future research, prompting subsequent studies to explore and analyze these areas in greater depth.

### **Contribution of the Study**

This study makes an essential contribution to the field of PST education on some levels. By comparing teacher educational modes in China, the United States, Canada, and Singapore, this study provides a cross-cultural perspective that reveals how the respective countries' cultures, social structures, and educational policies deeply influence educational practices. This comprehensive analysis helps shed light on global trends and international differences in teacher education. The study provides an in-depth exploration of the changing role of teachers, particularly their shift from traditional knowledge transmitters to facilitators of learning and promoters of innovation in modern educational settings. This finding is crucial for educational policymakers and practitioners as it highlights new skills and competencies that must be emphasized in teacher training and professional development. This study also highlights the role of technology in modern teacher education and the importance of lifelong learning in developing the teaching profession. These findings are crucial for understanding educational technology's potential and building educational environments that support lifelong teacher learning and growth. The insights and recommendations presented in this study provide valuable guidance for teacher education policy development and future research. These contributions enhance our understanding of global teacher educational modes and provide a solid foundation for further research and practice innovations.

### **Recommendations for Future Research**

Given the findings and limitations of this study, future research could be deepened in several directions to provide more comprehensive insights.

Expanding the scope of comparative analyses to more countries, especially those regions not covered in this study, would help to reveal more nuanced differences and commonalities across global education systems. Considering the significant influence of cultural factors in teacher educational modes, future research should delve deeper into how particular cultural values, beliefs and historical contexts shape educational policies and practices. Meanwhile, with the rapid development of educational technology, it is imperative to explore the application and impact of emerging technologies such as artificial intelligence and machine

learning in teacher education. Gaining insights into the realities of teacher education in a particular educational setting through case studies or qualitative research methods will help reveal specific practice details and the complex dynamics behind them. Given the growing importance of lifelong learning, future research should focus on developing effective strategies for teachers' continuing education and professional development and how to support teachers' lifelong learning needs better.

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