

INNOVATIVE TEACHER TRAINING: EMPOWERING EDUCATORS TO FOSTER INNOVATION IN THE CLASSROOM IN HECHUAN DISTRICT CHONGQING, CHINA

Dan ZHANG¹

¹ Student-Master of Education Program in Educational Management Innovation,
Pathumthani University, Thailand; 593802286@qq.com

ARTICLE HISTORY

Received: 28 July 2023

Revised: 16 August 2023

Published: 28 August 2023

ABSTRACT

The objectives of this study were to examine the factors influencing the adoption of innovative teaching practices in Chinese schools and their impact on students' learning outcomes and the development of 21st-century skills. to evaluate the role of technology integration in fostering innovative teaching environments in Chinese classrooms and identify the associated opportunities and challenges, and to assess the effectiveness of teacher training and professional development programs in equipping Chinese educators to implement innovative teaching practices successfully. In this study, the researcher investigates teachers instructing in secondary schools which includes 37,825 teachers and sample size employed in this research was approximately 395.82 individuals. This research revolves around the factors influencing Innovative Teacher Training and their impact on fostering innovation in the classroom. The study found significant relationships between contextual factors, teaching training models, key competencies for innovative teaching, and outcomes of innovative teacher training. Specifically, key competencies for innovative teaching and outcomes of innovative teacher training emerged as statistically significant predictors of the dependent variable.

Keywords: Innovative Teacher Training, Foster, Empowering Educators

CITATION INFORMATION: Zhang, D. (2023). Innovative Teacher Training: Empowering Educators to Foster Innovation in the Classroom in Hechuan District Chongqing, China. *Procedia of Multidisciplinary Research*, 1(8), 21

INTRODUCTION

Innovative teaching has become a central focus in contemporary education as stakeholders, including educators, policymakers, and researchers, recognize the need to better prepare students for the rapidly evolving global landscape (Wagner & Dintersmith, 2015). The concept of innovative teaching encompasses not only the integration of technology into the classroom but also the adoption of novel teaching and learning strategies that promote critical thinking, collaboration, creativity, and problem-solving skills among students (Fullan & Langworthy, 2014). These strategies aim to transform the traditional teacher-centered approach into a more learner-centered one, empowering students to take charge of their learning and fostering a growth mindset (Dweck, 2006). Several studies have been conducted to evaluate the implementation of innovative teaching methods, identify best practices, and understand the challenges faced by teachers and institutions across the globe (OECD, 2019; Darling-Hammond et al., 2017). These studies highlight the importance of understanding the cultural, social, and economic contexts in which innovative teaching practices are implemented. These factors significantly influence the effectiveness and scalability of such approaches (Zhao, Wehmeyer, Basham, & Hansen, 2016). Moreover, innovative teaching requires a shift in the educational culture, embracing a more collaborative and reflective approach to teaching and learning, with teachers and students working together to co-create knowledge (Biesta, 2015). This paradigm shift necessitates continuous professional development, teacher support, and strong leadership from educational institutions and policymakers to successfully integrate innovative teaching practices (Hargreaves & Fullan, 2012). In light of these considerations, it becomes crucial to examine the global situation on innovative teaching to identify patterns, challenges, and opportunities that can inform future directions for research and practice. By understanding the diverse approaches and contexts in which innovative teaching is being implemented, stakeholders can work together to create more equitable and effective learning environments that cater to the needs of all learners in the 21st century. Across the globe, countries and regions are at varying stages in implementing and adopting innovative teaching practices. While some nations have made substantial progress in integrating technology and innovative pedagogies into their education systems, others still face significant challenges. An overview of the global teaching innovation situation highlights the progress and challenges different countries to face.

LITERATURE REVIEWS

In this research, the researcher aims to investigate the factors of Innovative Teacher Training: Empowering Educators to Foster Innovation in the Classroom in Hechuan District Chongqing, China. A comprehensive review of various literature sources related to outcomes of innovative Teacher Training theories is conducted, as detailed below:

The impact of innovative teaching methodologies on student learning outcomes and skill development has been the subject of extensive research and debate within education. Innovative teaching practices, which encompass a range of pedagogical approaches, such as project-based learning, flipped classrooms, and collaborative learning, have been widely acknowledged for their potential to transform traditional educational environments and better prepare students for the demands of the 21st century (Wagner & Dintersmith, 2015; Fullan & Langworthy, 2014). One key aspect of innovative teaching outcomes is the development of 21st-century skills, which include critical thinking, problem-solving, creativity, and collaboration (Trilling & Fadel, 2009). Research has shown that innovative teaching methodologies can effectively promote these skills, leading to improved academic performance and better preparation for students' future careers (Bell, 2010; Hattie, 2009). For instance, project-based learning has enhanced students' problem-solving abilities and deepened their understanding of complex concepts (Thomas, 2000). Similarly, flipped classrooms, which

involve students engaging with content outside of class and then applying their learning through collaborative activities during class time, have been shown to promote active learning, critical thinking, and self-directed learning (Bishop & Verleger, 2013; Lage Platt, & Treglia, 2000). Another significant outcome of innovative teaching is increased student engagement and motivation (Prince, 2004; Fredricks, Blumenfeld, & Paris, 2004). By emphasizing student-centered learning and providing opportunities for students to explore their interests and passions, innovative teaching practices can create more meaningful and enjoyable learning experiences (Kuh, 2008; Zhao, Wehmeyer, Basham, & Hansen, 2016). For example, collaborative learning approaches, which involve students working together to co-create knowledge and solve problems, have been found to foster greater intrinsic motivation, positive attitudes toward learning, and higher levels of satisfaction (Johnson & Johnson, 2009; Roseth, Johnson, & Johnson, 2008).

Concept and Theory of Contextual Factors

Several aspects are identified as influential factors in the educational context in the concept and theory of contextual factors related to teaching.

The role of leadership in educational change has been widely discussed by researchers such as Hallinger (2003) and Spillane et al. (2004). They emphasize the importance of instructional and transformational leadership in driving innovation and fostering a culture of continuous improvement. Professional development and teacher training are also crucial contextual factors in the literature. Darling-Hammond and Richardson (2009) and Penuel et al. (2007) argue that effective professional development and teacher training programs are essential in equipping educators with the skills and knowledge needed to implement innovative teaching practices. Strategies to promote student learning.

Concept and Theory of Teacher Training Models

The traditional teacher training model, often called the “apprenticeship model,” has been widely used in teacher education programs for many years (Zeichner, 2010). This model typically involves a combination of university-based coursework, covering subject matter knowledge and pedagogical theory, followed by supervised student teaching in a K-12 classroom (Darling-Hammond, 2006).

Concept and Theory of Key Competencies for Innovative Teaching

The concept and theory of critical competencies for innovative teaching are essential in education research. Several studies and frameworks have been developed to identify and support the necessary skills for educators to foster innovative and effective teaching practices. The following literature review presents an overview of some of the critical key works, offering insights into the competencies necessary for innovative teaching.

Hattie's (2009) seminal work, “Visible Learning,” offers a comprehensive synthesis of research on effective teaching and learning practices, drawing from over 800 meta-analyses to provide evidence-based recommendations for enhancing student achievement. The author emphasizes the importance of innovative teaching strategies, focusing on those proven to impact student learning significantly. The book is a valuable resource for educators, school leaders, and policymakers, highlighting the crucial role of evidence-based practices in promoting student success. Hattie's work underscores the importance of ongoing research and collaboration in the field of education, as well as the need for continued professional development to ensure that teachers are equipped with the latest knowledge and best practices to meet the needs of their diverse learners effectively.

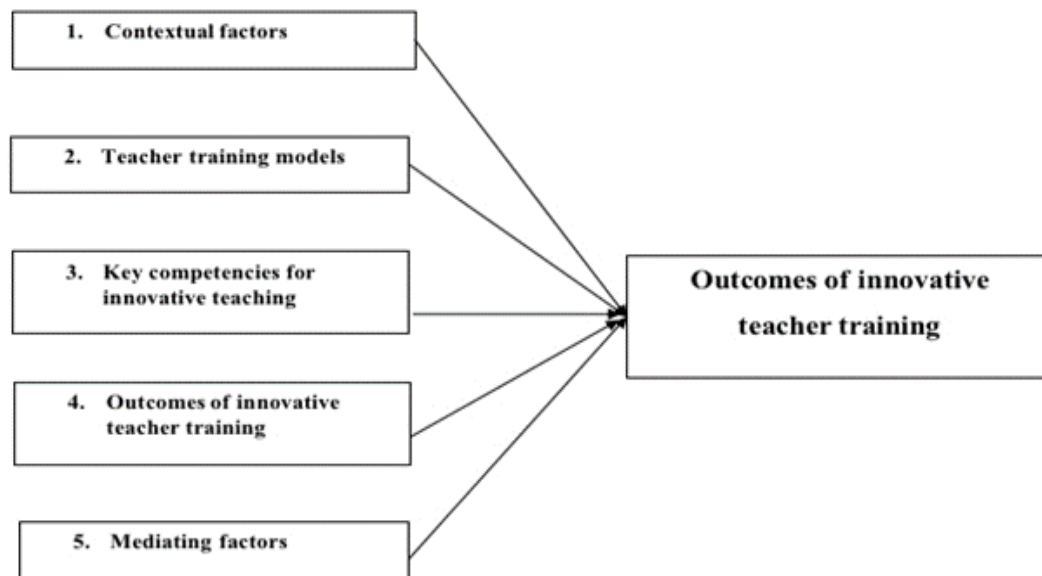


Figure 1 Conceptual Framework

RESEARCH METHODOLOGY

Data Collection Tools For this research, the questionnaire was a rating scale with five levels: highest, high, moderate, low, and very low. The researcher has developed an improvement from the research questionnaire Likert scale (Likert, 1932), the questionnaire is divided into two parts are:

Part 1 The status of the respondents It was a multiple-choice question with four questions about the quality of the respondents.

Part 2 This part studies the factors of innovative teacher training outcomes in the Hechuan District, Chongqing, China. It is a 5-level estimation scale question asking about factors of Family background is divided into four areas as follows:

Contextual factors

Teacher training models

Key competencies for innovative teaching

Outcomes of innovative teacher training

Mediating factors

RESEARCH RESULTS

Table 1 Mean Standard Deviation and Statistic Significant of the Difference in Contextual Factors

Contextual Factor	X-bar	S.D.	Significant	CV%	Level
The learning objectives and goals of social media-based teaching and learning are clearly defined	3.92	.871	Agree	22.22	4
Social media-based teaching and learning have thoroughly analyzed the target audience and their needs.	4.11	.715	Agree	17.40	5
The learning environment and available resources have been considered in the planning process	3.75	.903	Agree	24.08	2
The learners' characteristics, such as age, learning preferences, and prior knowledge, have been considered.	3.82	.938	Agree	24.55	1
The constraints and challenges in implementing social media-based teaching and learning have been identified and addressed.	3.96	.906	Agree	22.88	3
Total	3.91	.866	Agree		

Table 1 Presents the factors of Innovative Teacher Training: Contextual factors maintain an agreed stance. Evaluated using the coefficient of variation, maintains an Agree stance. The learners' characteristics, such as age, learning preferences, and prior knowledge, have been considered. The learning environment and available resources have been considered in the planning process. The constraints and challenges in implementing social media-based teaching and learning have been identified and addressed., The learning objectives and goals of social media-based teaching and learning are clearly defined. Social media-based teaching and learning have thoroughly analyzed the target audience and their needs.

Table 2 Mean Standard Deviation and Statistic Significant of the Difference in the Teaching Training Model

Teaching Training Model	X-bar	S.D.	Significant	CV%	Level
Peer-to-peer coaching and mentoring can be an effective way to promote the adoption of innovative teaching practices among educators	4.14	.809	Agree	19.59	5
A teacher training model that provides ongoing support and follow-up coaching can more effectively promote the sustained adoption of innovative teaching methods.	3.92	.926	Agree	23.85	2
Teacher-led professional development, where teachers share their innovative practices with their colleagues, can lead to the successful adoption of innovative teaching methods.	3.97	.897	Agree	22.80	4
Collaboration and sharing ideas with peers can effectively promote innovation in the classroom.	3.93	.931	Agree	24.04	1
A combination of online and in-person learning experiences can effectively promote the adoption of innovative teaching methods.	3.90	.926	Agree	23.64	3
Total	3.97	.904	Agree		

Table 2 Presents the factors of Innovative Teacher Training: The Teaching Training Model factors maintain an agreed stance. Collaboration and sharing ideas with peers can be effective

ways to promote innovation in the classroom., A teacher training model that provides ongoing support and follow-up coaching can more effectively promote the sustained adoption of innovative teaching methods., A combination of online and in-person learning experiences can effectively promote the adoption of innovative teaching methods., Teacher-led professional development, where teachers share their innovative practices with their colleagues, can lead to the successful adoption of innovative teaching methods. Peer-to-peer coaching and mentoring can be an effective way to promote the adoption of innovative teaching practices among educators.

Table 3 Mean Standard Deviation and Statistic Significant of the Difference in Key Competencies for innovative teaching

Key Competencies for innovative teaching	X-bar	S.D.	Significant	CV%	Level
Creativity is a key competency for innovative teaching, as it allows teachers to develop unique approaches to engaging students and addressing learning challenges.	4.23	.653	Agree	15.44	5
Problem-solving is a crucial competency for innovative teaching, as it allows teachers to identify and address obstacles to student learning.	3.91	.934	Agree	23.89	1
Collaboration is an important competency for innovative teaching, as it allows teachers to work with peers and students to co-create new learning experiences.	4.21	.687	Agree	16.32	4
Critical thinking is a key competency for innovative teaching, as it enables teachers to analyze complex information and design learning experiences that challenge and engage students.	4.19	.688	Agree	16.42	3
Adaptability is an essential competency for innovative teaching, as it allows teachers to respond to changing student needs and adapt their teaching strategies accordingly.	4.14	.720	Agree	17.39	2
Total	4.13	.736	Agree		

Table 3 The factors of Innovative Teacher Training: In the Teaching Training Model, factors maintain an agreed stance. Problem-solving is a crucial competency for innovative teaching, as it allows teachers to identify and address obstacles to student learning., Adaptability is an essential competency for innovative teaching, as it allows teachers to respond to changing student needs and adapt their teaching strategies accordingly., Critical thinking is a key competency for innovative teaching, as it enables teachers to analyze complex information and design learning experiences that challenge and engage students., Collaboration is an essential competency for innovative teaching, as it allows teachers to work with peers and students to co-create new learning experiences., Creativity is a key competency for innovative teaching, as it allows teachers to develop unique approaches to engaging students and addressing learning challenges.

Table 4 Mean Standard Deviation and Statistic Significant of the Difference in Outcomes of innovative teacher training

Outcomes of innovative teacher training	X-bar	S.D.	Significant	CV%	Level
Teachers who receive innovative teacher training are better equipped to develop engaging and effective student learning experiences.	3.97	.900	Agree	22.67	4
Implementing innovative teaching methods can lead to improved student learning outcomes, such as increased engagement and improved academic achievement.	4.25	.633	Agree	14.89	5
Innovative teaching practices can increase job satisfaction among teachers, as they feel more empowered and effective in their roles.	3.93	.933	Agree	23.74	2
Innovative teacher training programs can promote a culture of innovation within schools and educational institutions, leading to a more dynamic and engaging learning environment.	3.35	.863	Agree	25.76	1
Implementing innovative teaching methods can improve students' critical thinking and problem-solving skills, better preparing them for success in their future careers.	3.85	.900	Agree	23.38	3
Total	3.87	.845	Agree		

Table 4 Presents the factors of Innovative Teacher Training: The Teaching Training Model factors maintain an agreed stance. Innovative teacher training programs can promote a culture of innovation within schools and educational institutions, leading to a more dynamic and engaging learning environment., Adopting innovative teaching practices can lead to greater job satisfaction among teachers, as they feel more empowered and effective in their roles., Implementing innovative teaching methods can improve students' critical thinking and problem-solving skills, better preparing them for success in their future careers., Teachers who receive innovative teacher training are better equipped to develop engaging and effective student learning experiences. Innovative teaching methods can improve student learning outcomes, such as increased engagement and academic achievement.

Table 5 Mean Standard Deviation and Statistic Significant of the Difference in Mediating Factors

Mediating factors	X-bar	S.D.	Significant	CV%	Level
The level of institutional support for innovative teacher training can greatly impact the effectiveness of the training program.	3.87	.946	Agree	24.44	1
Teacher attitudes towards innovative teaching methods can play a significant role in the success of innovative teacher training programs.	3.37	1.103	Agree	32.73	1
The availability of technology resources in the classroom can mediate implementing of innovative teaching methods.	4.12	.750	Agree	18.20	5
The extent to which school leaders prioritize innovation and creativity in the curriculum can influence the success of innovative teacher training programs.	4.15	.820	Agree	19.76	4
The teacher collaboration and support level within a school can mediate the effectiveness of innovative teacher training programs.	3.80	1.005	Agree	26.45	2
Total	4.20	.697	Agree		

Table 5 Presents the factors of Innovative Teacher Training: In Mediating factors, maintains an agreed stance. The social media-based teaching and learning materials are regularly evaluated and updated to meet the learners' needs; the evaluation process involves both formative and summative assessments to ensure continuous improvement; Social media-based teaching and learning materials have a positive impact on learning outcomes and student engagement, Assessment results are analyzed to determine the effectiveness of the social media-based teaching and learning materials, and Feedback from learners and teachers is collected and used to improve the materials and instructional strategies.

DISCUSSION & CONCLUSION

The discussion of this research revolves around the factors influencing Innovative Teacher Training and their impact on fostering innovation in the classroom in Hechuan District, Chongqing, China. The study found significant relationships between contextual factors, teaching training models, key competencies for innovative teaching, and outcomes of innovative teacher training. Specifically, key competencies for innovative teaching and outcomes of innovative teacher training emerged as statistically significant predictors of the dependent variable. Comparing these findings to related research, it is evident that key competencies for innovative teaching have been highlighted as crucial elements in promoting innovation in the classroom (Vooht, Erstard, Dede, & Misshra, 2013). This aligns with the current study's findings, emphasizing the importance of developing these competencies in teacher training programs to maximize the potential for innovation within the classroom.

In contrast, the current study found that contextual factors, teaching training models, and mediating factors were not statistically significant predictors of the dependent variable. This contrasts with some research that has suggested the importance of these factors in determining the effectiveness of teacher training programs (Tondeur, Forkosh-Baruch, Prestiedge, Albion, & Edirisinghs, 2016). However, the weak or non-significant correlations observed in the present study may be attributed to the Hechuan District, Chongqing, China's specific context, or the unique sample population. In conclusion, this study contributes to the existing body of research on innovative teacher training by providing insights into the factors critical for fostering innovation in the classroom. The findings emphasize the importance of key competencies for innovative teaching and outcomes of innovative teacher training, which should be considered by educators, school leaders, and policymakers when designing and implementing teacher training programs. Further research should continue exploring these factors in various contexts to develop a more comprehensive understanding of the elements contributing to successful innovative teacher training programs.

According to the findings of this study, different contexts and populations: Investigate the factors influencing innovative teacher training and their effects in different cultural, geographical, and educational contexts. This would enable researchers to identify similarities and differences among various settings, potentially uncovering new insights and further refining the understanding of the factors that contribute to successful innovative teacher training programs.

REFERENCES

- Anderson, S. (2003). The school district role in educational change: A review of the literature. *International Journal of Educational Management*, 17(6), 318-330.
- Dewey, J. (1938). *Experience and education*. Kappa Delta Pi.
- Dweck, C. S. (2006). *Mindset: The New Psychology of Success*. Random House.
- Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. Teachers College Press.

- Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective Practice*, 1(3), 293-307.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.



Copyright: © 2023 by the authors. This is a fully open-access article distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0).