

International Journal of Learning, Teaching and Educational Research
Vol. 24, No. 2, pp. 63-86, February 2025
<https://doi.org/10.26803/ijlter.24.2.4>
Received Dec 16, 2024; Revised Feb 12, 2025; Accepted Feb 19, 2025

A Phenomenological Study of National In-Service Vocational Teacher Training at a Vocational College in China: Voices of Trainers and Trainees

Shan Wu 

UCSI University, Education Department, Kuala Lumpur, Malaysia
Xiamen Ocean Vocational College, Xiamen 361000, China

Lin Sew Eng* 

UCSI University, Education Department, Kuala Lumpur, Malaysia

Abstract: National in-service vocational teacher training represents a key approach in improving the quality of vocational education. This phenomenological study investigated the significance of this type of training at a vocational college in China. The study employed a purposive sampling method to select participants, ensuring they had relevant experience with national in-service vocational teacher training. It drew on the experiences of eight participants: four trainers and four trainees, all of whom had participated directly in national in-service vocational teacher training. Three main methods of data collection were employed: semi-structured interviews, observations, and document analysis. Through qualitative data collected via the semi-structured interviews and observations, the study explored how both trainers and trainees perceive the benefits and challenges of national in-service vocational teacher training. Guided by Experiential Learning Theory, the research framework provided a lens through which to understand how participants' experiences shaped their learning and professional growth. The findings revealed that while the training provides valuable opportunities for the acquisition of knowledge and development of skills, resource building, and practical problem-solving, challenges persist due to the traditional theoretical training model, which limits the effective transfer of learning. Based on these insights, the study suggested adopting a more continuous and practical training model to better support vocational educators, ultimately facilitating the efficacy of training and achieving meaningful classroom transformation.

Keywords: in-service teacher training; national training; trainee; trainer; vocational education

* Corresponding author: *Lin Sew Eng*; linse@ucsiuniversity.edu.my

1. Introduction

The national in-service vocational teacher training program was fully implemented in 2011 as part of the National Teacher Training Project (MOE, 2010). Conducted annually, typically during the summer holiday, and lasting for two to four weeks, the program aims to promote educational reform and enhance the professional competencies of in-service teachers in vocational colleges across China (MOE, 2010; Zhao & Liu, 2022). The initiative is systematically implemented through structured training schedules, clear participant selection criteria, and sustained funding from both central and local governments, reinforcing its role in vocational teacher training nationwide. It includes policy support from the Ministry of Education, local government funding for the implementation and evaluation of programs, and the involvement of dedicated agencies to manage teacher development, training facilities, and trainer selection and training (Fu et al., 2021; MOE, 2012). In 2011, the Ministry of Education and the Ministry of Finance jointly issued the report: *Opinions on Implementing the Plan for Improving the Quality of Vocational College Teachers*, marking the official launch of this systematic training program and laying an institutional foundation for vocational teacher training in China (MOE, 2011; Yang et al., 2022). Between 2012 and 2022, government investment in the program steadily increased, financing substantial financial and human resources, demonstrating a long-term commitment to vocational teacher development (Liu et al., 2016; Zhao & Liu, 2022).

However, despite strong financial and institutional support, concerns persist regarding the program's effectiveness, as there is still debate about its actual impact on vocational educators. Some studies suggest a misalignment between policy objectives and practical outcomes, particularly in areas such as content relevance, teaching methods, and the application of learned skills in real teaching contexts (Zhao & Liu, 2022). Experts have pointed out that while funding and structural support are in place, monitoring and evaluation mechanisms remain insufficient, leading to inconsistencies in the quality of programs across different regions (Fu et al., 2021). Additionally, research has highlighted challenges such as limited interaction between trainers and trainees, insufficient hands-on practice, and inadequate follow-up support after training sessions (Yang et al., 2022). These concerns necessitate a deeper examination of existing research to understand how the program can bridge the gap between policy intentions and actual improvements in vocational teaching practice.

2. Literature Review

Despite significant resources being allocated to the national in-service vocational teacher training program, concerns persist regarding its effectiveness. The existing literature reveals the discrepancy between the program's intended goals and its actual outcomes. Studies have identified several challenges, including overly theoretical content, a heavy reliance on lecture-based instruction, and insufficient practical application (Fu et al., 2021; Loyalka et al., 2019; Yang, 2023). Liu et al. (2016) highlighted key deficiencies in the program's design and implementation, such as a lack of alignment with teachers' actual needs, insufficient consideration of diverse teaching backgrounds, low interactivity in lecture-based sessions, and inadequate follow-up support. These issues

underscore the need for more practical, targeted improvements to enhance the effectiveness of the training.

Loyalka et al. (2019) compared China's national in-service teacher training program with similar programs in other developing countries, primarily focusing on general in-service teacher training rather than addressing the specific requirements related to vocational education. As a result, while their study highlights the importance of follow-up mechanisms, it does not fully account for the specialized training required by vocational teachers. Similarly, Liu et al. (2016) reported that approximately 80% of teachers in China participate in in-service training, with national programs providing the most training hours, but the expected impact has not been fully realized due to an overemphasis on theoretical knowledge, lecture-based instruction, and weak evaluation mechanisms.

Research on vocational teacher training reveals further concerns. Yang et al. (2022) and Yang (2023) identified multiple challenges, including the use of unqualified trainers, oversimplified evaluation tools, and a lack of practical relevance within the training content. These findings collectively suggest that national training programs should prioritize professional development, enhance training quality and efficiency, and improve evaluation mechanisms to better meet vocational educators' needs (Li et al., 2023; Zhao & Liu; 2022). Fu et al. (2021) proposed establishing teacher learning communities and designing specialized training programs that align with teachers' professional needs and regional development priorities, in order to address these shortcomings. While these studies identify key issues, they do not thoroughly examine the lived experiences of trainers and trainees; this missing information is crucial for understanding how vocational teachers perceive and apply the training they receive.

Although previous studies have explored the structural and policy-related aspects of vocational teacher training, research on the lived experiences of trainers and trainees remains limited. Addressing this gap, this study aims to provide an in-depth qualitative examination of how trainers and trainees engage with, perceive, and apply the training in their professional practice. The research question that guided this study was: How do trainers and trainees experience and interpret the national in-service vocational teacher training? The questions for this study focused on the gap in the research; while the importance of in-service vocational teacher training has been widely recognized, and numerous quantitative studies have been conducted, there is a lack of in-depth qualitative research examining training experiences from the perspectives of both trainees and trainers. This study aimed to address this gap by providing a deeper understanding of how participants engage with, perceive, and apply the training in their professional practice, offering insights that could not be fully captured through quantitative analysis alone.

3. Theoretical Framework

Kolb's Experiential Learning Theory (ELT) emphasizes experience as central to learning, distinguishing it from other theories (Kolb et al., 2014). The theory posits that learning occurs through transforming experience, with knowledge created in

this process. ELT has also been widely applied in fields such as corporate training, healthcare education, and skill-based vocational training to enhance practical learning and professional development (Aithal & Mishra, 2024). Kolb's theory highlights the idea that learning is a complete cycle and this realization offers comprehensive guidance for improving the design of vocational teacher training programs. Specifically, it provides critical insights into integrating practice, reflection, and theoretical application to enhance the effectiveness of training. The "experiential learning cycle" includes four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb et al., 2014; McLeod, 2023). Given that vocational education itself is highly practice-oriented, ELT's emphasis on learning through experience aligns well with the nature of vocational teacher training, making it a particularly suitable framework for optimizing teacher engagement in in-service vocational teacher training and bridging the gap between theoretical knowledge and practical application.

Existing studies on in-service vocational teacher training predominantly focus on training models, effectiveness assessments, and competency development. However, there is a lack of exploration into how vocational teachers experience, internalize, and apply training content in their professional practice. Many studies assess the effectiveness of training quantitatively but fail to capture how teachers engage with and transform training knowledge into classroom practice. ELT addresses this gap by providing a structured framework to analyze how vocational teachers navigate the learning process and how training outcomes translate into pedagogical adaptation and professional growth.

Thus, this study applies ELT as an analytical framework to examine how vocational teachers engage with national in-service vocational teacher training (Kolb et al., 2014). Through the lens of ELT, this study examines the progression of vocational teachers' learning during training, following the four stages of experiential learning:

- **Concrete Experience:** Teachers actively participate in in-service vocational teacher training, connecting new knowledge with prior teaching experiences, which serves as the foundation for deeper learning (Opfer & Pedder, 2011).
- **Reflective Observation:** Teachers critically assess their training experiences, assessing their relevance, challenges, and implications. This study captures their reflections through interviews to understand how training shapes their teaching perspectives (Körkkö et al., 2016).
- **Abstract Conceptualization:** Teachers integrate training insights into lesson planning, classroom management, and instructional strategies, adapting theoretical knowledge to practical applications (Moon, 2013).
- **Active Experimentation:** Teachers implement and refine newly acquired knowledge and teaching methods in their daily teaching, continuously adjusting their practices. This study also examines the barriers and facilitators influencing the transfer of training knowledge to real-world teaching (Kennedy, 2014).

By applying ELT, this study provides a structured framework for understanding the learning experiences of vocational teachers and highlights the factors that influence the effectiveness of in-service vocational teacher training. The findings offer insights into how experiential learning enhances professional development and inform strategies to improve training programs.

4. Methodology

The Interpretative Phenomenological Approach (IPA) is a qualitative research method rooted in phenomenology and hermeneutics, focusing on exploring individuals' lived experiences and the meanings they attribute to those experiences (Smith, 2017). IPA is widely used in educational research, particularly for analyzing teachers' professional development and their reflections on training (Alase, 2017; Smith, 2017). This approach is effective in uncovering deep insights into how participants interpret and make sense of their training experiences.

In this study, the IPA was used to analyze the national in-service teacher training program by focusing on the lived experiences of both trainers and trainees and interpreting the deeper meanings they attach to these experiences. This approach is particularly suited to this study because it enables an in-depth exploration of the personal perspectives of both trainers and trainees, which is central to understanding how they experience and interpret national in-service teacher training. By focusing on these individual experiences, IPA allows for a rich analysis of how trainers and trainees make sense of their roles, challenges, and learning processes within the training context.

4.1 Setting

This study focused on the 2022 national in-service vocational teacher training program. This involved the participation of teachers from College X. College X is a typical higher vocational college in Fujian Province, China. Every year, the college selects a number of teachers to participate in national in-service vocational teacher training. National in-service vocational teacher training takes place off-campus. The participants for this study were all the teachers and trainers who directly participated in the national in-service vocational teacher training program in 2022.

4.2 Sampling

Purposive sampling was used to select the participants because it ensures the inclusion of individuals with specific qualities or experiences relevant to the study's objectives, in this case those who have undergone national in-service vocational teacher training. This method is appropriate for qualitative research as it allows for the selection of participants who can provide in-depth insights into training experiences, rather than a random selection, which may include individuals with limited or irrelevant experience (Etikan et al., 2016). In this study, four trainers and four trainees were selected from a vocational college in Fujian Province. Four trainers were chosen for their direct involvement in conducting national in-service teacher training, while four trainees met the following criteria: 1) they were from vocational College X in Fujian Province, and; 2) they had

participated in national in-service teacher training. This method ensured a focused and in-depth understanding of the topic.

4.3 Participants

Among eight participants in this study, four were trainers, and the remaining four were teachers who participated in the national in-service teacher training in 2022. To employ an ethical research standard, number codes were used for participants instead of names to ensure privacy and confidentiality and comply with ethical considerations (i.e., Trainee 1 is tagged as ME1, Trainer 1 as MO1). MO1–4 were the trainers for the national in-service teacher training. ME1–4 were the trainees for the national in-service teacher training. They were experienced Chinese teachers from College X.

4.4 Data Collection

In this study, three main methods of data collection were used: semi-structured interview, observation, and document analysis. The data were collected between October 1, 2022, and December 31, 2022 and they were focused on exploring the trainers' and trainees' experiences of national in-service vocational teacher training (see Table 1). Triangulation was used for cross-verification of data from multiple sources. This strengthened the reliability and validity of the data by offering a holistic view of the research subject (Denzin, 2012). Semi-structured interview questions were developed based on theoretical frameworks, previous studies, and the research objectives. The questions were designed to align with Kolb's ELT to ensure their relevance to participants' learning processes. Additionally, insights from previous research on national in-service vocational teacher training, as discussed by Liu et al. (2016), Yang et al. (2022), and Yang (2023) were incorporated. While these studies did not specifically address interview guide design, they highlighted key issues and challenges in in-service vocational teacher training that informed the development of targeted interview questions.

Before conducting the main interviews, a pilot study was carried out to verify the suitability of these questions. Two trainers and two trainees, who provided informed consent, participated in this preliminary phase. Their feedback confirmed that the questions were both relevant and aligned with the research objectives, and the data collected supported the overall feasibility of the study. Since no modifications were required, the interview questions remained unchanged. Both pilot interviews took place in a private, uninterrupted setting. The participants involved in the pilot study were not included in the main research.

All observations were undertaken in accordance with strict guidelines, and the information was recorded according to the observation checklist. The observation checklist was designed to systematically capture key aspects of the training activities, including teaching methods, participant engagement, and interactions between trainers and trainees. This ensured consistency and reliability in the data collection while providing accurate baseline data for subsequent analysis.

The documents analyzed included government policy documents on national in-service vocational teacher training, training manuals, and other related materials. These documents provided insights into the structure, objectives, and content of the training programs. They helped in understanding the institutional framework and its implementation, and offered reliable data on how training was delivered to support effective evaluation and suggestions for improvement.

To ensure content validity, the interview questions were developed based on a comprehensive review of the relevant literature and they were reviewed by experts in vocational education and phenomenological research (Almanasreh et al., 2019). Triangulation of data sources ensured reliability since it involved cross-verifying information obtained from interviews, observations, and documents. Data from interviews were compared with observational records to identify consistencies or discrepancies, while documents provided a contextual framework to validate the findings from both interviews and observations (Carter et al., 2014). This multi-method approach ensured a comprehensive and consistent understanding of the phenomena under study. In thematic analysis, recording and renaming play important roles in refining and ensuring the clarity and accuracy of the themes and categories identified during the analysis process (Rogers, 2018).

Table 1: Research matrix

Theoretical framework (ELT [Kolb et al., 2014])	Research questions	Source of data	Data collection	Interview questions for trainers	Interview questions for trainees
Concrete Experience (In this situation, learners acquire knowledge by observing, hearing about or reading about someone else's experiences)	RQ1: What is the lived experience of the trainers and trainees during the in-service vocational teacher training at the national, provincial, and on-campus levels in China?	Trainers and trainees undertaking the in-service vocational teacher training	1. Semi-structured interview 2. Observation 3. Documents	1. How would you describe your experiences of the national in-service vocational teacher training?	1. How would you describe your experiences of the national in-service vocational teacher training?
Reflective Observation (In this stage, learners will also try to place the experience alongside other previous experiences to look for patterns or notable differences)	RQ2: What insights or new perspectives did the trainers and trainees gain through reflection?	Trainers and trainees undertaking the in-service vocational teacher training	1. Semi-structured interview 2. Observation 3. Documents	1. How did the training facilitate trainees' reflection throughout the process?	1. How did the training facilitate your reflection during training?
				2. What were you feeling during the reflection process? Explain and provide examples.	3. What were you feeling during the reflection process? Explain and provide examples.

<p>Abstract Conceptualization (In this stage, learners form new ideas or alter their current understanding based on the reflections arising from the previous stage)</p>	<p>RQ3: What are the new ideas which the trainers and trainees perceive during the in-service vocational teacher training at the national, provincial, and on-campus levels?</p>	<p>Trainers and trainees undertaking the in-service vocational teacher training</p>	<p>1. Semi-structured interview 2. Observation 3. Documents</p>	<p>1. What new insights did you gain from the experience of facilitating reflection with the trainees?</p>	<p>1. What new insights did you learn from the experience of reflecting during the national in-service vocational teacher training? 2. What are the new ideas or skills which you learned in the national in-service vocational teacher training?</p>
<p>Active Experimentation (In this stage, learners apply their new ideas to the world around them)</p>	<p>RQ4: How do the trainees apply the new ideas/concepts in their teaching and learning?</p>	<p>Trainers and trainees undertaking the in-service vocational teacher training</p>	<p>1. Semi-structured interview 2. Observation 3. Documents</p>	<p>1. How do trainees apply the new ideas or skills in their teaching? 2. What other information would you like to share with me about your training experience?</p>	<p>1. How do you apply the new ideas or skills in your teaching? 2. What other information would you like to share with me about your training experience?</p>

4.5 Data Analysis

The data were analyzed using thematic analysis (Braun & Clarke, 2006) within a phenomenological framework to explore the participants' lived experiences. Thematic analysis, which involves systematic coding and theme identification, was selected for its flexibility in capturing patterns of meaning while remaining grounded in participants' subjective experiences. To enhance the validity and credibility of the findings, triangulation (Rogers, 2018) was employed, integrating data from interview transcripts, observation records, and government documents. The phenomenological lens ensured that the thematic analysis remained focused on how participants perceive and interpret their training experiences, rather than merely categorizing responses. This approach allowed for an in-depth exploration of the meaning-making processes, contextual influences, and emotional dimensions embedded in participants' narratives. By structuring the data through thematic analysis while maintaining a phenomenological perspective, the study provided deeper insights into the participants' perspectives and experiences. This understanding forms the basis for meaningful and context-specific recommendations for improvement.

5. Findings

During the thematic analysis, the researcher triangulated the interview transcriptions to the observation records and documents as triangulation. Four themes and eight sub-themes emerged (see Table 2).

Table 2: Themes, categories, and codes from the data analysis

Themes	Sub-themes	Categories	Codes
Experience: Connecting to professional experiences	Connect to expertise	Knowledge	"new concepts" "solved confusion"
		Skills	"professional skills" "teaching methods"
	Connect work-related resources and experience	Work-relative resources	"lead school reform" "participate in the reform"
		Other experiences	"Meet professional trainers" "Meet many peers" "Interaction"
Reflection: Reflecting on learner-centered training influence	Facilitate professional growth	Enhance knowledge and skills	"Enhancing our professional capabilities" "career development" "insights and inspiration"
		Reflecting on previous experiences	"Reassess teaching strategies" "Addressed uncertainties"
	Resource integration	Potential opportunity	"Lead school reform" "participate in the reform" "leading school teaching reform" "Collaboration opportunities" "School recognition"
		Expanding networks	"know more peers" "famous trainers"
Generalization: Bridging theory and practical practice	Transfer from theory to practice	Theory-based course	"mainly theory lecture" "like a theory lecture"
		Practical application	"more practical course" "value the practicality" "solve practical difficulties" "little operating information"
	Applied learning strategies	Practical learning	"hands-on sessions" "real-life teaching guidance"
		Interactive learning	"Peers learning" "group discussion" "interactive teaching"

Application: Integrated evaluation and ongoing support for training transfer	Transfer- focused evaluation	Effective evaluation	"scientific" "effective" "evaluation" "too formalistic"
		Focus on the training transfer	"results-oriented" "classroom transfer"
	Continuous guidance	Follow-up guidance	"follow up guidance" "continuous" "one-time training is not enough"
		Guide the daily teaching	"daily teaching" "solve practical problems" "real-life practice"

5.1 Experience: Connecting to Professional Experiences

During the national in-service vocational teacher training, participants felt more connected to knowledge and skills relevant to their profession and finished with a broader professional perspective compared to before the training.

5.1.1 Connect to expertise

Participants reported that the training programs offered relevant course content, such as "professional skills", "teaching methods", and "modern teaching technologies". Four trainers (MO1-4) indicated that the primary goal of the training was to enhance the trainees' knowledge and skills. For instance, Trainer 4 stated that his course was dedicated to teaching the essential modern "ICT technologies".

"In the class, I primarily taught ICT technology, enabled trainees to learn ICT skills, and showed them how to use these technologies in their daily teaching." (MO4)

Similarly, trainees ME2, ME3, and ME4 respectively believed that the training provided them with teaching-related "knowledge" and "skills". Trainee ME2 felt that the course content included a substantial amount of Chinese teaching material, primarily focusing on Chinese teaching content design and teaching strategies. ME4 also mentioned that the trainers were "experts in Chinese teaching", and they demonstrated "a wealth of professional knowledge and skills related to Chinese teaching" in the training.

"The course mainly covered knowledge and content related to Chinese teaching, such as the selection of classical Chinese teaching materials, the design of teaching standards, and examples of applying modern teaching technologies in the classroom ... trainers were all experts in Chinese teaching, and they demonstrated a wealth of professional knowledge and skills related to Chinese teaching in the training." (ME4)

The documents and observation records confirmed the responses from the national training participants. The national training manual specified that the curriculum was tailored to include theories and skills related to Chinese teaching.

Observation records also showed that “trainers typically explained the training objectives during sessions”, and “the course content consistently matches these objectives”. Trainers follow the predefined training goals and content in their instruction.

5.1.2 Connect work-relative resources and experience

In addition to knowledge and skills, participants’ reports highlighted the work-related resources they encountered during the training. This training provided not only theoretical knowledge but also meaningful opportunities for communication between trainees and trainers, fostering peer learning and exposure to exemplary practices. Trainee ME3 noted that he gleaned a lot of details and key points about a national language teaching competition from a gold medalist who provided valuable insights. He recalled:

“It is an opportunity to communicate with peers and famous trainers. This is excellent teacher training, so the ones who come should be very good teachers in language teaching, so they can exchange different practices of each school. I heard that there was a gold medal winner who participated in a national language teaching competition, and she gave us a lot of details and key points of the competition, which we found very useful.” (ME3)

Similarly, trainees ME1, ME2 and ME4 all responded that during the training, they gained “an understanding of the dynamics of vocational education reform”, became familiar with “excellent case studies from different schools”, and benefited from “peers’ experiences”, such as “competition experience” and “research experience” among others. ME3 stated that informal interactions with trainers during breaks also provided learning opportunities, such as observing “trainers’ interpersonal skills” and learning from their “personal development experiences”.

The researcher did not find any mention of specific training objectives or contents in the training manual related to enhancing communication or requiring schools to recognize training outcomes. However, the documents clearly states that the targeted participants are “experienced in-service teachers” in Chinese teaching from colleges across the country. This confirms the possibility of high-quality communication and collaboration occurring during the training. In addition, the national observation records included instances of communication between trainers and trainees. For example, according to one record: “During breaks, there was extensive communication between trainers and trainees. Trainees raised many specific questions, and the trainers addressed them one by one.”

5.2 Reflection: Reflecting on Learner-Centered Training Outcomes

In reflecting upon the experience, participants noted that they gained a deeper understanding of their expertise related to their professional and teaching practices. Additionally, the other work-related experiences encountered during the training were highly beneficial, contributing significantly to their professional advancement and career development.

5.2.1 Facilitate professional growth

Participants affirmed that training is an important channel for teachers' professional development. Trainers MO1, MO3, and MO4 mentioned that national-level training is the "highest level of in-service vocational teacher training", which is meticulously designed and considered a "rare professional development opportunity for teachers". All trainees appreciated and emphasized that it was a valuable opportunity to access professional and useful "knowledge" and "skills". ME 1 mentioned that the training helped her enhance her professional abilities. ME3 considered that "teaching practices were improved". ME4 mentioned that she learned "new skills", and Trainee 2, whose response was very representative, believed that:

"The training provided a unique opportunity to broaden professional perspectives, clarify teaching responsibilities, and enhance teaching abilities, thereby offering significant professional growth." (ME1)

5.2.2 Resource integration

Trainers and trainees also mentioned that the training provided them with many career development supports beyond professional knowledge and skills. These developmental advantages included opportunities to engage in educational reforms, build a professional network with outstanding trainers and peers, and find solutions to work challenges they could not solve alone. For example, when reflecting on her feelings about the training experience, ME2 believed that:

"In our daily work, we are often alone or working with a limited number of colleagues, making it difficult to have any intellectual sparks. However, coming here, I get to interact with many professional trainers and outstanding peers. We exchange teaching ideas and gain a lot of inspiration, which is something hard to come by in our regular work." (ME2)

Trainee ME3 believed that national-level in-service vocational teacher training allowed her "to gather the latest information on educational reforms", while trainee ME4 felt that high-quality interactions were more appealing to her than acquiring specific knowledge; she said, "the opportunity for meaningful communication attracts me even more."

According to the observation records, trainers emphasized the applicability of advanced theories and adjusted their explanations to clarify challenging points when confusion arose. As noted in one record, "When trainees appeared confused, the trainer elaborated on challenging points to ensure clarity." Similarly, another record stated that "the trainer stimulated trainees' thinking through questioning and examples" and adjusted the pace of the session based on feedback, creating a positive learning atmosphere.

5.3 Generalization: Bridging Theory and Practical Application

Following the training experience, participants began to integrate their reflections with their existing knowledge and other familiar contexts and experiences. Compared to their previous experiences, the new knowledge they gained was largely theoretical, lacking substantial practical application.

5.3.1 Theory-based course

Both trainers and trainees recognized that the national in-service vocational teacher training was mainly “theory-based” training. This was reflected in the training content, which was mainly focused on theory. Trainees ME1, ME2 and ME3 all reported that the training content was “mainly theory lectures”.

“The training courses are all theory-based ... the teaching methods are mainly theoretical lectures.” (ME3)

Trainers MO1, MO2, and MO3 also mentioned that their training consisted of “theoretical courses” or “theory-based courses”. This suggests that the training may lack practical components, which could limit its effectiveness in preparing teachers to apply what they have learned in real-world teaching scenarios. The national training manual indicates that the national training involves “Expert lecture”, regardless of whether the courses were theory-related or skill-related, with class sizes exceeding 80 participants.

5.3.2 Applied learning strategies

In terms of teaching methods, trainees ME1, ME2 and ME3 and trainers MO1, MO2 and MO3 reported that the training was primarily delivered through a “direct instruction”, “teacher-centered” approach. Such traditional and theoretical teaching methods mean that new knowledge lacks practicality. This suggests that the training may fail to engage trainees in meaningful interactions or provide hands-on experiences, thus limiting their ability to apply new knowledge in real-world teaching contexts. ME2’s response supports this assertion, as follows:

“they mainly teaching by themselves. There was very little interaction except for a few questions posed to the trainees and almost no practical, hands-on components.” (ME2)

ME1 stated that “interactive and collaborative teaching strategies” are more effective, while ME3 suggested that teaching should focus more on “student-centered” development.

It is worth noting that MO4 stated that their training content was skills-based; however, both ME4 and MO4 reported that the course was still delivered through a direct-instruction approach.

“Practicing and learning by doing is the best way to develop practical skills. Just listening to lectures or watching demonstrations isn’t enough to really grasp the practical skills. To make this class more effective, we should incorporate more hands-on activities and real-life practice.” (ME4)

According to the training manuals, the courses were almost entirely delivered in the form of theoretical lectures lasting two to three hours. National-level training is often delivered to over 80 participants at a time. Observation records also showed that the teaching methods were mainly “direct instruction”. All four observation records indicated that the teaching approach is also “teacher-

centered”, with “instructional methods primarily relying on direct instruction”, which supported the above responses.

5.4 Application: Integrated Evaluation and Ongoing Support for Training Transfer

During the phase of preparing to apply this new knowledge and skills, participants believed that both continuous support and evaluation were still necessary. They emphasized that the value of the training should not be limited to one-time sessions but should instead lie in the effective transfer and application of training.

5.4.1 Transfer-focused evaluation

All the trainees, when focusing on improving training evaluation, suggested that it should be transfer-based. ME3 felt that the current one-time training assessment was “too formalistic” and failed to effectively identify issues. ME1 suggested organizing “a more scientific and comprehensive evaluation method for training and trainees”, rather than “using the old-fashioned way of writing summaries and reflections to evaluate the learning effectiveness of trainees”.

“I suggest that organizers have a more scientific and comprehensive evaluation method for training and trainees, rather than using the old-fashioned way of writing summaries and reflections to evaluate the learning effectiveness of trainees. Through scientifically effective evaluation, the training evaluation can truly reflect the training situation and guide training improvement. Funds and manpower are allocated to improve training effectiveness.” (ME1)

MO2 suggested that the evaluation of the training should focus on “classroom transfer” and should be “continuous”.

“We need to ... [be] paying more attention to classroom transfer after training and continuous evaluation, because as a trainer in one-time class, it is difficult to complete the task of trainees’ teaching evaluation after the training, but I think it is also very important.” (MO2)

Reference to the national training manual demonstrates that evaluation of the training process is not clearly defined in the documents provided by the government or organizers. The researcher believes that while this lack of clarity provides flexibility for organizers in practical operations, it also creates a potential risk that outdated and unscientific evaluation methods may be used.

5.4.2 Continuous guidance

Participants mentioned that the training should provide continuous and practical guidance to better help them to solve practical issues. Trainees ME2–4 reported that they hoped the training would provide “continuous” and “real-life” support. Trainee ME3’s response was also very representative:

“When we return to our actual work, we have to deal with very specific, practical problems that are not always addressed by the theoretical content.” (ME3)

Trainers MO2 and MO4 stated that they felt that trainees would continue to encounter endless challenges when they returned to their real teaching environments. MO4 believed that skills-based courses must include “practical”, “hands-on sessions” to “effectively help trainees master the necessary skills”.

“Practicing and learning by doing is the best way to develop practical skills. Just listening to lectures or watching demonstrations isn’t enough to really grasp the material. When returning to the classroom, teachers often face countless challenges. To make our sessions more effective, we should incorporate more hands-on activities and real-life practice.” (MO4)

The national training manuals and observation records indicated that the training sessions are one-time events with no arrangement for follow-up practical guidance. The researcher believes this confirms the participants’ need for ongoing and practical daily teaching support.

6. Discussion

The findings indicated that national in-service vocational teacher training not only enhances teachers’ professional knowledge and skills but also provides valuable career development resources. The visible professional enhancements include knowledge acquisition, skill development, and attitude transformation, while career development resources encompass opportunities for educational research, policy reforms, professional networking, and academic collaborations.

Traditional in-service vocational teacher training programs often emphasize the enhancement of explicit professional competencies (Raduan & Na, 2020). The training content covers areas such as policy interpretation, pedagogy, curriculum design, and information technology in education, providing teachers with a systematic learning experience. These enhancements effectively improve trainees’ professional competencies. For instance, training sessions on pedagogy introduce evidence-based teaching methods, while curriculum design workshops help teachers develop more structured and engaging lesson plans. Additionally, modules on information technology in education provide a hands-on experience with digital tools and platforms, enabling teachers to integrate technology into their classrooms effectively.

However, Iqbal et al. (2020) suggest that career development resources may serve as stronger motivators for trainees to undertake training programs. While formal courses serve as the foundation of training, the informal exchange environment has emerged as a crucial driver of teachers’ professional development. During training, a large number of teachers from different institutions and the same professional fields come together, engaging in peer discussions, sharing experiences, and participating in academic dialogues. These often lead to learning outcomes that go beyond the formal curriculum. Unlike predefined course objectives, these career-related opportunities arise organically through collaborative discussions, sharing experiences of teaching competitions, and informal networking. Such interactions not only enhance teachers’ practical abilities but also strengthen professional networks, creating further career advancement opportunities.

According to Guskey (2021), teacher development is a multifaceted and ongoing process. Guskey's researches indicate that teachers are motivated by opportunities for collaboration, participation in reforms, and networking, alongside resources that offer continuous development potential. These factors often outweigh the mere acquisition of knowledge or skills, as modern avenues for learning are numerous and accessible. This redefined perspective on professional development suggests that teacher training programs should aim to provide continuous developmental opportunities and resources that align with teachers' career aspirations and support their engagement with broader educational reforms (Iqbal et al., 2020).

Additionally, with the advancement of technology, the barriers to acquiring knowledge and skills have significantly diminished, meaning that various learning and development resources are widely accessible (Schmidt & Tang, 2020). In in-service vocational teacher training, what genuinely attracts trainees are the scarce developmental resources that can only be accessed through active participation in a training program (Smith & Gillespie, 2023). These resources, essential for the professional growth of trainees, serve as a critical source of motivation, often surpassing the pursuit of knowledge, skills, and attitudes (Guskey, 2002). The findings have shown that the availability of such exclusive development opportunities fosters greater engagement and motivation among trainees, contributing to more effective training outcomes.

The findings further reveal that the current implementation of training remains predominantly theory-based, relying on teacher-centered lectures as the primary method of instruction. While this theoretical approach supports foundational knowledge, it fails to address trainees' practical needs, leading to inefficiencies in training transfer. As a result, the overall impact of training on classroom performance remains limited. The implementation of training in in-service vocational teacher training has long been predominantly theoretical in China, with traditional direct instruction being the main method of delivery (Yang, 2023). This approach results in several difficulties, such as limited engagement, minimal practical application, and a lack of innovation.

However, this study finds that these challenges have not been effectively addressed in practice. One key constraint is the strict regulatory framework governing vocational teacher training (Darling-Hammond & Snyder, 2000). The national training manual mandates requirements such as training facilities, schedules, objectives, and participant numbers, ensuring compliance but restricting flexibility in adopting practical courses or alternative teaching methods (MOE, 2022).

Practical training is often perceived as less cost-effective than theoretical instruction, as it demands additional resources, including specialized equipment, materials, and trainers with extensive hands-on experience (Lothridge et al., 2013). Moreover, practical sessions require extended teaching and practice periods, which may not align with the constrained schedules of vocational teacher training programs (Ginja & Chen, 2020). Consequently, many training organizers favor

theoretical instruction, which can accommodate more trainees while meeting the program's objectives with fewer logistical challenges.

Furthermore, the rigid roles currently characteristic of trainers and trainees discourage pedagogical innovation, as trainers are not held accountable for how training translates into actual classroom teaching (Sivarajah et al., 2019). Even those interested in innovation may hesitate due to potential risks. Modern teaching approaches, emphasizing knowledge preparation, the integration of technology, and interactive learning, present additional hurdles. These methods require significant adjustments to training resources, instructional materials, and evaluation frameworks and such actions would increase the costs and complicate implementation of the programs (Nurutdinova et al., 2016). These programs frequently emphasize course completion as a metric for certification rather than focusing on performance or the application of acquired skills (Subrahmanyam, 2020).

In addition, in-service vocational teacher training is essentially a form of professional training, whereby the ultimate goal and lasting value lie in the successful transfer of training (Iqbal et al., 2020). This means improving teachers' classroom performance and, ultimately, enhancing the overall quality of vocational education (Miao et al., 2019). The findings indicate that training transfer is highly valued by both trainers and trainees; however, it remains a relatively weak link in actual practice. The long-standing focus of in-service vocational teacher training on knowledge and skills acquisition, particularly on the learning outcomes of trainees, often results in the efficiency of transferring training into the classroom being overlooked (Blömeke & Kaiser, 2017). This transfer inefficiency is not adequately considered in the design and evaluation processes by training organizers, which is a deep-seated reason for the negative evaluations that such training programs often receive (Blanchard & Thacker, 2023). Training transfer in in-service vocational teacher training is essential for enhancing the effectiveness of teaching, maximizing return on investment, and promoting continuous professional development. Without effective transfer, the knowledge and skills gained during training remain theoretical, limiting their impact on classroom practices and student outcomes (Forlin & Sin, 2017). Vocational teachers often struggle to integrate new teaching methods into their daily practice, leading to minimal improvements in student engagement (Schleicher, 2016). Furthermore, a lack of transfer undermines the significant financial and time investments made by educational institutions and governments in these programs (Riddell & Niño-Zarazúa, 2016). According to Yang (2023), in-service vocational teacher training often faces challenges due to inadequate support from peers and supervisors, resulting in missed opportunities for applying newly acquired skills. This failure to transfer training not only limits the effectiveness of the training but also hinders the continuous professional development of trainees, which is critical in vocational education (Miao et al., 2019). Therefore, to ensure that vocational teacher training achieves its objectives, institutions should focus on creating a transfer-based training model.

Therefore, vocational teacher training should adopt a practice-oriented model, integrating real-life teaching, simulated teaching, and problem-solving learning to improve skill retention among trainees and instructional effectiveness (Cordingley, 2015). Structured feedback mechanisms could further support real-time improvements in teaching strategies. Post-training support, including peer mentoring, professional learning communities, and follow-up workshops, could reinforce the practical application of training and sustained growth among trainees (Kraft et al., 2018). Additionally, shifting assessments from knowledge tests to performance-based evaluations could ensure the effectiveness of training by measuring real classroom implementation (Gallardo, 2020). In addition, institutional support is crucial for long-term impact. Schools should align training with teaching standards, encourage classroom observations, and provide targeted guidance to ensure training translates into practice (Schleicher, 2016). These measures would strengthen the overall effectiveness of training and improve the quality of vocational education.

7. Conclusion

This study has explored the experiences of trainers and trainees in the national in-service vocational teacher training program. The findings have highlighted the role of the training as a catalyst for professional growth, enhancing trainees' knowledge, skills, and attitudes while providing career opportunities like educational research, participation in educational reform, and networking. However, the training's traditional, theory-based model has failed to address the practical needs of trainees, relying on lectures and theoretical instruction. This limits its effectiveness in real-world teaching applications and professional growth. The study calls for revolutionizing the model by introducing a continuous-practical training framework rooted in experiential learning. This approach would bridge the gap between theory and practice, focusing on resource building, problem-solving, and key stages of learning to ensure sustained professional development.

Based on the findings, this study points to a recommendation for a practice model applying ELT to in-service teacher training. This model highlights four key stages of the training process and offers practical guidance tailored to vocational teachers, addressing their specific needs and promoting the effective transfer of training.

While this phenomenological study provides valuable insights, it also has limitations. The use of a small, non-random sample restricts the ability to generalize the findings to a national scale. Moreover, phenomenological research, with its focus on subjective experiences, is challenging to replicate and may not fully capture broader trends or diverse contexts. Future research should be expanded in scope by exploring in-service teacher training across multiple regions, incorporating larger and more diverse samples, and integrating complementary methods to enhance the study's generalizability and depth.

8. Recommendations

Based on the research findings and an analysis of the limitations in current national in-service teacher training, the researcher proposes key components to enhance its effectiveness. These four components are grounded in the feedback provided by the study participants, reflecting their perspectives on an ideal training program and aiming to improve the practical outcomes of the training. To illustrate these four components, a best practice model for in-service vocational teacher training in China is presented in Figure 1.

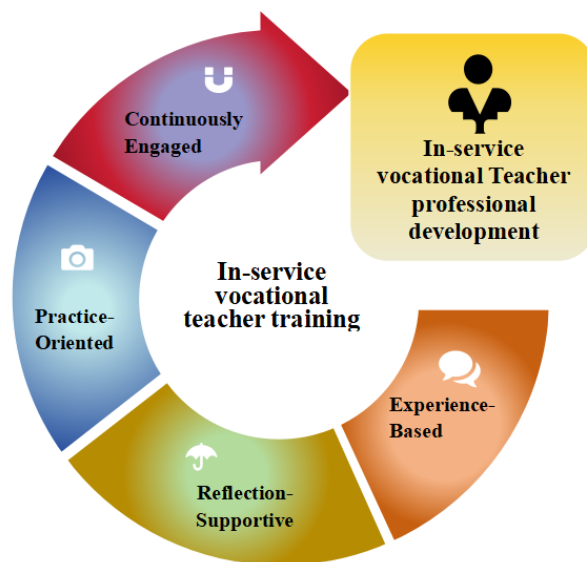


Figure 1: Model of best practice for in-service vocational teacher training

8.1 Experience-Based: Grounding Training Content in Teachers' Work

This component emphasized designing training content closely aligned with teachers' daily work and actual teaching scenarios. Such an approach enhances the relevance of the training content for their everyday professional activities (Munna & Kalam, 2021). Notably, the training content should not only cover knowledge and skills, but should also address participants' expectations for potential career development resources. All of these elements should be taken into consideration and offered, either formally or informally, within the training arrangements. This, in turn, prepares them for subsequent reflection and abstraction, leading to a deeper understanding of how these learnings apply to their teaching practice.

8.2 Reflection-Supportive: Enhancing Development by Bridging Experience Gaps

This section aimed to bridge the gap between trainees' existing experiences and their new learning, ensuring that their developmental needs are met. It emphasized the importance of building upon work-related experiences while paying close attention to teachers' actual developmental requirements, thereby supporting their reflective processes. Through reflective activities such as discussions, case analyses, and sharing sessions, teachers can address the shortcomings of their previous experiences and be guided toward actively examining their own needs. The goal is to ensure that the training content closely

aligns with teachers' specific developmental needs, providing the essential elements they previously lacked and ultimately fostering substantive professional growth (Körkkö et al., 2016).

8.3 Practice-Oriented: Bridging Abstract Concepts with Practical Applications

This section underscored the importance of transforming theoretical knowledge into practical applications. By incorporating hands-on activities, project-based learning, peer-learning activities, and real-world simulations in the training, participants are able to test and internalize new skills and knowledge, making them more relevant and applicable to their work (Lopes & Pereira, 2012; Jia et al., 2023). This practice-oriented approach ensures that the training content is not only conceptually understood but also practically applied, thus improving its usefulness in real teaching scenarios (Resch & Schritteser, 2023).

8.4 Continuously Engaged: Promoting Active Experimentation and Monitoring Post-Training Practice

This section highlights the importance of encouraging trainees to actively experiment with new ideas and methods in their post-training practice. Follow-up mechanisms should be in place to monitor their progress and provide ongoing support as they apply what they have learned in real teaching situations. Continuous engagement in active experimentation fosters sustained development and allows for the refinement of teaching practices, ensuring the long-term success of the training program. To better assess the practical impact of training, it is crucial to strengthen post-training monitoring and evaluation (Darling-Hammond et al., 2020). Implementing formative assessments, rather than relying on one-time evaluations, would provide more continuous feedback on trainees' progress (Yan et al., 2021). Additionally, incorporating third-party evaluations and including teacher performance as part of the assessment criteria could offer more objective insights into the effectiveness of the training (Little et al., 2009). This approach would ensure that the real-world impact of the training is comprehensively evaluated, leading to more targeted improvements in teaching practices.

9. References

- Aithal, P. S., & Mishra, N. (2024). Integrated framework for experiential learning: Approaches & impacts. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 8(1), 145–173. <https://doi.org/10.5281/zenodo.10710126>
- Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies*, 5(2), 9–19. <http://dx.doi.org/10.7575/aiac.ijels.v.5n.2p.9>
- Almanasreh, E., Moles, R., & Chen, T. F. (2019). Evaluation of methods used for estimating content validity. *Research in Social and Administrative Pharmacy*, 15(2), 214–221. <https://doi.org/10.1016/j.sapharm.2018.03.066>
- Blanchard, P. N., & Thacker, J. W. (2023). *Effective training: Systems, strategies, and practices*. SAGE Publications. <https://complexdiscovery.com/wp-content/uploads/2021/10/Triangulation-in-Research.pdf>

- Blömeke, S., & Kaiser, G. (2017). Understanding the development of teachers' professional competencies as personally, situationally and socially determined. In D. J. Clandinin, J. Husu, S. Blömeke, & G. Kaiser (Eds.), *The Sage handbook of research on teacher education* (pp. 783–802). Sage Publications. https://www.duo.uio.no/bitstream/handle/10852/59437/1/Clandinin_Styled_Chap45_SB.pdf
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., & Neville, A. J. (2014). The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41(5), 545–547. <https://onf.ons.org/pubs/article/16566/preview-download>
- Cordingley, P. (2015). The contribution of research to teachers' professional learning and development. *Oxford Review of Education*, 41(2), 234–252. <https://doi.org/10.1080/03054985.2015.1020105>
- Darling-Hammond, L., & Snyder, J. (2000). Authentic assessment of teaching in context. *Teaching and Teacher Education*, 16(5–6), 523–545. [https://doi.org/10.1016/S0742-051X\(00\)00015-9](https://doi.org/10.1016/S0742-051X(00)00015-9)
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Denzin, N. K. (2012). Triangulation 2.0. *Journal of Mixed Methods Research*, 6(2), 80–88. <https://doi.org/10.1177/1558689812437186>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Forlin, C., & Sin, K. F. (2017). In-service teacher training for inclusion. *Oxford research encyclopedia of education*. <https://doi.org/10.1093/acrefore/9780190264093.013.161>
- Fu, Q., Yao, J., Tan, Q., & Gui, R. (2021). Teacher training needs and their influencing factors: A case study of 13 Chinese border school teachers. *International Journal of Learning, Teaching and Educational Research*, 20(10), 331–349. <https://doi.org/10.26803/ijlter.20.10.18>
- Gallardo, K. (2020). Competency-based assessment and the use of performance-based evaluation rubrics in higher education: Challenges towards the next decade. *Problems of Education in the 21st Century*, 78(1), 61–79. <http://oaji.net/articles/2020/457-1581494848.pdf>
- Ginja, T. G., & Chen, X. (2020). Teacher educators' perspectives and experiences towards differentiated instruction. *International Journal of Instruction*, 13(4), 781–798. <https://doi.org/10.29333/iji.2020.13448a>
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, 8(3), 381–391. <https://doi.org/10.1080/135406002100000512>
- Guskey, T. R. (2021). Professional learning with staying power. *Educational Leadership*, 78(5), 54–59. https://uknowledge.uky.edu/edp_facpub/52
- Iqbal, N., Khan, M. M., Mohmand, Y. T., & Mujtaba, B. G. (2020). The impact of in-service training and motivation on job performance of technical & vocational education teachers: Role of person-job fit. *Public Organization Review*, 20, 529–548. <https://doi.org/10.1007/s11115-019-00455-3>
- Jia, L., Jalaludin, N. A., & Rasul, M. S. (2023). Design thinking and project-based learning (DT-PBL): A review of the literature. *International Journal of Learning, Teaching and Educational Research*, 22(8), 376–390. <https://doi.org/10.26803/ijlter.22.8.20>

- Kennedy, A. (2014). Understanding continuing professional development: The need for theory to impact on policy and practice. *Professional Development in Education*, 40(5), 688–697. <https://doi.org/10.1080/19415257.2014.955122>
- Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2014). Experiential learning theory: Previous research and new directions. In R. J. Sternberg, & L. F. Zhang (Eds.), *Perspectives on thinking, learning, and cognitive styles* (pp. 227–247). Routledge.
<https://secondarycontent.pbworks.com/f/experiential-learning-theory.pdf>
- Körkkö, M., Kyrö-Ämmälä, O., & Turunen, T. (2016). Professional development through reflection in teacher education. *Teaching and Teacher Education*, 55, 198–206. <https://doi.org/10.1016/j.tate.2016.01.014>
- Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, 88(4), 547–588. <https://doi.org/10.3102/0034654318759268>
- Li, B., Yang, F., & Wang, Q. (2023). Policies, strategies, and the evolutionary logic of large-scale teacher training in China. *ECNU Review of Education*, 6(3), 451–468. <https://doi.org/10.1177/20965311231167195>
- Little, O., Goe, L., & Bell, C. (2009). *A practical guide to evaluating teacher effectiveness*. National Comprehensive Center for Teacher Quality.
<https://files.eric.ed.gov/fulltext/ED543776.pdf>
- Liu, H., Liu, C., Chang, F., & Loyalka, P. (2016). Implementation of teacher training in China and its policy implications. *China & World Economy*, 24(3), 86–104. <https://doi.org/10.1111/cwe.12160>
- Lopes, A., & Pereira, F. (2012). Everyday life and everyday learning: The ways in which pre-service teacher education curriculum can encourage personal dimensions of teacher identity. *European Journal of Teacher Education*, 35(1), 17–38. <https://doi.org/10.1080/02619768.2011.633995>
- Lothridge, K., Fox, J., & Fynan, E. (2013). Blended learning: Efficient, timely and cost effective. *Australian Journal of Forensic Sciences*, 45(4), 407–416. <https://doi.org/10.1080/00450618.2013.767375>
- Loyalka, P., Popova, A., Li, G., & Shi, Z. (2019). Does teacher training actually work? Evidence from a large-scale randomized evaluation of a national teacher training program. *American Economic Journal: Applied Economics*, 11(3), 128–154. <https://assets.aeaweb.org/asset-server/files/7282.pdf>
- McLeod, K. (2023). *The development and validation of the prosocial goals in online learning instrument for middle school students* [Doctoral dissertation]. George Mason University.
<https://www.proquest.com/docview/2825086130/previewPDF/62096B7B3B924F86PQ/1?accountid=145113&sourcetype=Dissertations%20&%20Theses>
- Miao, F., Mishra, S., Orr, D., & Janssen, B. (2019). *Guidelines on the development of open educational resources policies*. UNESCO Publishing.
<https://unesdoc.unesco.org/ark:/48223/pf0000371129>
- MOE (Ministry of Education of the People’s Republic of China). (2010). [National Teacher Training Project].
http://www.moe.gov.cn/srcsite/A10/s7058/201006/t20100630_92837.html
- MOE (Ministry of Education of the People’s Republic of China). (2011). [Opinions on implementing the plan for improving the quality of vocational college teachers].
http://www.moe.gov.cn/srcsite/A10/s7058/201110/t20111020_126538.html
- MOE (Ministry of Education of the People’s Republic of China). (2012). [“National Teacher Training Plan” curriculum standards (Test)]
http://www.moe.gov.cn/srcsite/A10/s7034/201303/t20130320_149949.html
- MOE (Ministry of Education of the People’s Republic of China). (2022). [National training manual].

- Moon, J. A. (2013). *Reflection in learning and professional development: Theory and practice*. Routledge. <https://doi.org/10.4324/9780203822296>
- Munna, A. S., & Kalam, M. A. (2021). Teaching and learning process to enhance teaching effectiveness: A literature review. *International Journal of Humanities and Innovation (IJHI)*, 4(1), 1–4. <https://doi.org/10.33750/ijhi.v4i1.102>
- Nurutdinova, A. R., Perchatkina, V. G., Zinatullina, L. M., Zubkova, G. I., & Galeeva, F. T. (2016). Innovative teaching practice: Traditional and alternative methods (challenges and implications). *International Journal of Environmental and Science Education*, 11(10), 3807–3819. <https://files.eric.ed.gov/fulltext/EJ1116729.pdf>
- Opfer, V. D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376–407. <https://doi.org/10.3102/0034654311413609>
- Raduan, N. A., & Na, S.-I. (2020). An integrative review of the models for teacher expertise and career development. *European Journal of Teacher Education*, 43(3), 428–451. <https://doi.org/10.1080/02619768.2020.1728740>
- Resch, K., & Schrittmesser, I. (2023). Using the service-learning approach to bridge the gap between theory and practice in teacher education. *International Journal of Inclusive Education*, 27(10), 1118–1132. <https://doi.org/10.1080/13603116.2021.1882053>
- Riddell, A., & Niño-Zarazúa, M. (2016). The effectiveness of foreign aid to education: What can be learned? *International Journal of Educational Development*, 48, 23–36. <https://doi.org/10.1016/j.ijedudev.2015.11.013>
- Rogers, R. (2018). Coding and writing analytic memos on qualitative data: A review of Johnny Saldaña's *The Coding Manual for Qualitative Researchers*. *The Qualitative Report*, 23(4), 889–892. <https://nsuworks.nova.edu/tqr/vol23/iss4/12>
- Schleicher, A. (2016). Teaching excellence through professional learning and policy reform: Lessons from around the world. *International Summit on the Teaching Profession*, 2(2), 406–415. <https://doi.org/10.1787/9789264252059-en>
- Schmidt, J. T., & Tang, M. (2020). Digitalization in education: Challenges, trends and transformative potential. In M. Harwardt, P. J. Niermann, A. Schmutte, & A. Steuernagel (Eds.), *Führen und Managen in der Digitalen Transformation* (pp. 287–312). Springer. https://doi.org/10.1007/978-3-658-28670-5_16
- Sivarajah, R. T., Curci, N. E., Johnson, E. M., Lam, D. L., Lee, J. T., & Richardson, M. L. (2019). A review of innovative teaching methods. *Academic Radiology*, 26(1), 101–113. <https://doi.org/10.1016/j.acra.2018.03.025>
- Smith, C., & Gillespie, M. (2023). Research on professional development and teacher change: Implications for adult basic education. In J. Comings, B. Garner, & C. Smith (Eds.), *Review of adult learning and literacy: Connecting research, policy, and practice* (Vol. 7, pp. 205–244). Routledge. <https://doi.org/10.4324/9781003417996>
- Smith, J. A. (2017). Interpretative phenomenological analysis: Getting at lived experience. *The Journal of Positive Psychology*, 12(3), 303–304. <https://doi.org/10.1080/17439760.2016.1262622>
- Subrahmanyam, G. (2020). *UNESCO-UNEVOC study on the trends shaping the future of TVET teaching*. UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training. <https://files.eric.ed.gov/fulltext/ED608983.pdf>
- Yan, Z., Li, Z., Panadero, E., Yang, M., Yang, L., & Lao, H. (2021). A systematic review on factors influencing teachers' intentions and implementations regarding formative assessment. *Assessment in Education: Principles, Policy & Practice*, 28(3), 228–260. <https://doi.org/10.1080/0969594X.2021.1884042>
- Yang, L., Martínez-Abad, F., & García-Holgado, A. (2022). Exploring factors influencing pre-service and in-service teachers' perception of digital competencies in the Chinese region of Anhui. *Education and Information Technologies*, 27(9), 12469–12494. <https://doi.org/10.1007/s10639-022-11085-6>

- Yang, Y. (2023). Challenges in teachers' professional identity development under the National Teacher Training Programme: An exploratory study of seven major cities in Mainland China. *Music Education Research*, 25(4), 468–484. <https://doi.org/10.1080/14613808.2023.2246136>
- Zhao, F., & Liu, X. (2022). From mutual creation to mutual benefit: China's national teacher training program between higher teacher education and K-12 teachers. *Journal of Contemporary Educational Research*, 6(9), 65–75. <https://doi.org/10.26689/jcer.v6i9.3941>