2024 Volume 13 Number 11, 183-194

Teaching self-efficacy, professional development, and teaching performance among Chinese public elementary teachers

Education

ISSN: 2243-7703 Online ISSN: 2243-7711

OPEN ACCESS

Chen, Yuanyuan

Graduate School, Lyceum of the Philippines University – Batangas, Philippines (chenyy0805@gmail.com)

Received: 20 August 2024 Available Online: 15 September 2024

Revised: 13 September 2024

Accepted: 14 September 2024 DOI: 10.5861/ijrse.2024.24745

Abstract

This study utilized descriptive research to determine the relationship among Chinese public elementary school teachers' teaching self-efficacy, professional development, and teaching performance, which is important for improving teachers' overall quality and teaching quality. A total of 500 public elementary teachers in China participated in this study. Results showed that majority of the respondents are female, 26-35 years old, bachelor's degree holders and have been teaching for 6-10 years. They agreed on all the indicators under teaching self-efficacy, having high regard to role satisfaction. Also, teachers agreed on all the items under professional development, giving more importance to teaching strategies and methods. In terms of teaching performance, the respondents agreed on all the indicators, particularly parents and students. Furthermore, there exists no significant difference of responses in teaching self-efficacy, professional development and teaching performance when grouped according to profile variables except for sex in teaching performance. In addition, there exists a highly significant relationship among the three variables. This implies that teachers with high self-efficacy are more likely to actively seek out professional development opportunities to improve their skills. Also, engaging in professional development can boost teachers' confidence and self-efficacy, leading to improved teaching practices. Finally, effective teaching performance can reinforce teachers' belief in their abilities, further enhancing their self-efficacy. In the end, a faculty development program to enhance the teaching self-efficacy, professional development and teaching performance of Chinese public elementary teachers was proposed. The findings not only provide valuable references for educational policy makers, but also concrete guidance and suggestions for frontline teachers and school administrators in their daily teaching and professional development. Future research can further explore the specific effects of different types of professional development activities on teachers' teaching self-efficacy and teaching performance, and develop more targeted teacher training and development programs.

Keywords: teaching self-efficacy, professional development, instructional performance, Chinese public elementary schools, educational quality, teacher training, teacher development

Teaching self-efficacy, professional development, and teaching performance among Chinese public elementary teachers

1. Introduction

Quality education is a fundamental cornerstone of any society's progress, and in the context of China, a nation known for its rich history and rapid modernization, the importance of effective elementary education cannot be overstated. Chinese public elementary schools, the bedrock of China's educational system, serve as the nurturing ground for future citizens and leaders, shaping their abilities and aspirations. In this complex and dynamic landscape, a trio of factors has emerged as critical elements that influence the quality of education provided by Chinese elementary teachers: teaching self-efficacy, professional development, and teaching performance. The educational journey of a child begins in the capable hands of elementary school teachers. These educators play a vital role in imparting knowledge, instilling values, and fostering curiosity. As such, it is imperative to ensure that these teachers are well-equipped to meet the demands and challenges of the modern classroom, and that they can inspire and guide their students toward academic excellence and personal growth (Biman et al., 2000).

Teaching self-efficacy, a concept rooted in social cognitive theory developed by Albert Bandura, is the foundation upon which teachers build their teaching practice. It encompasses a teacher's belief in their capacity to influence student learning and behavior. In the Chinese context, high self-efficacy teachers possess a strong conviction in their ability to create meaningful learning experiences for their students (Gistituati, 2020). This self-belief not only shapes their teaching style but also drives their motivation to navigate the often intricate and demanding Chinese educational system. Research (Gabriel, et al., 2011) has shown that teachers with high self-efficacy are more likely to employ effective teaching strategies and demonstrate unwavering commitment to their students' success. This conviction equips them with the resilience to confront challenges and adapt to the dynamics of the Chinese education landscape. Yet, self-efficacy is not a static trait but one that can be nurtured and developed. This is where professional development enters the stage. Professional development is a cornerstone for enhancing teaching self-efficacy among Chinese public elementary teachers. It encompasses a range of activities, from workshops and seminars to training programs and collaborative learning experiences (Huang, 2022). The importance of high-quality professional development cannot be overstated. It provides educators with the skills and knowledge needed to excel in the classroom and adapt to the ever-evolving educational landscape.

In the Chinese context, professional development acts as a bridge between theory and practice, equipping teachers with the tools and strategies necessary to meet the diverse needs of their students. It is the vehicle through which teachers can enhance their teaching self-efficacy, refine their pedagogical techniques, and deepen their understanding of the curriculum. When combined with self-efficacy, high-quality professional development enables educators to navigate the rigorous Chinese education system with confidence and effectiveness (Chen, 2020). However, the ultimate goal of these two elements, self-efficacy and professional development, is to impact teaching performance. Teaching performance encompasses the practical application of self-efficacy in the classroom and the outcomes achieved (Li, 2022). Effective teaching is measured not only by the adherence to pedagogical principles but by the impact it has on student learning outcomes and classroom engagement. In the competitive landscape of Chinese education, effective teaching, rooted in self-efficacy and professional development, is paramount. Well-prepared and confident teachers not only create an enriching and supportive learning environment but also have a direct impact on student achievement (Wang et. al., 2019).

In this intricate, often demanding educational context, where teachers are called upon to navigate large class sizes, high student-teacher ratios, and a curriculum that places high expectations on students, fostering teaching self-efficacy and providing relevant professional development is essential. The combination of self-belief and

knowledge provides teachers with the tools to not only manage the demands of their profession but to excel in delivering quality instruction. In doing so, they contribute to the growth and development of Chinese students, shaping their academic journeys and future prospects (Cui et. al.,2020). However, the landscape of Chinese public elementary education is not without its unique challenges and opportunities. It is not just the teachers who are expected to adapt and grow; the education system itself is continually evolving. There are logistical, cultural, and administrative challenges that must be navigated, and a growing emphasis on 21st-century skills and technology integration in the classroom. These challenges can be significant, but they also present opportunities for innovation and improvement. Finding the right balance between traditional teaching methods and innovative approaches is an ongoing endeavor (Appova, et al.,2018).

Therefore, the interplay between teaching self-efficacy, professional development, and teaching performance is a multifaceted area of exploration. The dynamics between these elements shape the quality of education in Chinese public elementary schools, making it a topic of immense significance. Empowering teachers with strong self-belief and equipping them with effective professional development opportunities is central to enhancing teaching practices and driving positive educational outcomes. Understanding and further exploring these dynamics is crucial for the continual improvement of the Chinese education system. Hence, a faculty development program was proposed to enhance the teaching self-efficacy, professional development and performance of public elementary teachers in China.

Objectives of the Study - The purpose of this study is to determine the relationship among teaching self-efficacy, professional development and teaching performance, among Chinese public elementary teachers to propose a faculty development program to enhance teacher teaching self-efficacy and professional development. Specifically, the study determined the instructional self-efficacy with regard to role satisfaction, instructional climate, and learning achievement; assessed the professional development as to instructional expertise, strategic approaches to teaching, student involvement in relationships, and professional development and reflection; identified the instructional performance as regards personal factors, school factors, and parents and students factors to determine teachers' instructional performance; tested the significant the relationship among the three variables; and, finally, proposed a faculty development program to enhance teacher teaching self-efficacy and professional development.

2. Methods

Research Design - The researcher employed descriptive research to determine the relationship among teaching self-efficacy, professional development and performance of public elementary teachers in China. Descriptive research involves systematically observing and describing the characteristics of a specific sample without comparing it to a control or alternative group. Its primary aim is to provide an accurate portrayal of the sample's characteristics, behaviors, or conditions as they exist naturally, which is invaluable for generating hypotheses and informing further research. This method is particularly suitable for studies where the goal is to document and understand the distribution and frequency of certain phenomena within a population. The descriptive design was thus appropriate for this research, given the focus on a specific group of participants and the absence of a comparative analysis with another group. Data were gathered using a standardized survey questionnaire designed to address the research problem, ensuring that the collected information was relevant and comprehensive. Descriptive research methods are often seen as preliminary steps that provide a snapshot of current conditions and help identify variables that warrant further study (Babbie, 2020). By focusing on the description rather than causal relationships, descriptive studies help lay the groundwork for subsequent experimental or correlational research (Creswell & Creswell, 2018). This approach is particularly effective in educational research, where understanding the nuances of teacher practices, student behavior, and educational outcomes is essential (Johnson & Christensen, 2020).

Participants of the Study - In this study, the participants are public elementary school teachers in China. Currently, there are approximately 5,656,300 public elementary school teachers in China (Wang, 2023). To

ensure the representativeness and diversity of the data, a sample of 500 teachers was randomly selected from different schools, districts, or grade levels. These teachers taught elementary school grades one through six. With a confidence level of 95% (Z-score of 1.96) and a margin of error of 5%, the ideal sample size for this study is 384. However, in practical studies, the sample size is often increased to ensure the representativeness of the sample, so the ideal sample size is set at 450 to further ensure the reliability and validity of the findings.

Stratified random sampling method was used in the selection of participants. This method was chosen to ensure that subgroups within the population (such as different age groups, educational backgrounds, and subject areas) were adequately represented. Stratified random sampling involves dividing the population into distinct subgroups (strata) and then randomly selecting participants from each stratum. This approach enhances the representativeness of the sample by ensuring that key characteristics of the population are included. Purposive sampling was also employed, which refers to the deliberate identification of participants based on their specific attributes (Etikan et al., 2016). The researcher used purposive sampling since the participants fall under a specific profile, that is, only teachers of different ages, educational backgrounds, and subject areas were selected. This was done to ensure a diverse and representative sample that could provide comprehensive insights into the research areas.

The selection criteria for the respondents were based on several key attributes to ensure a diverse and representative sample: (1) Teaching Grades. The respondents were teachers who taught elementary school grades one through six. This range was selected to encompass the entire spectrum of elementary education. (2) Geographical Diversity. Teachers were selected from various schools across different regions to ensure geographical diversity. This approach helps in capturing a wide range of teaching experiences and educational contexts. (3) Age and Experience: Teachers of different ages and varying levels of teaching experience were included. This criterion was important to understand the perspectives of both novice and experienced teachers. (4) Educational Background: Respondents with different educational backgrounds (such as varying degrees and certifications) were included to capture the impact of educational qualifications on teaching efficacy, professional development, and performance. (5) Subject Areas: Teachers from different subject areas (e.g., mathematics, science, language arts) were included to ensure that the findings were applicable across various disciplines.

By carefully selecting participants based on these criteria, the study aimed to achieve a comprehensive understanding of teaching self-efficacy, professional development, and teaching performance among Chinese public elementary teachers. The combination of stratified random sampling and purposive sampling ensured that the sample was both representative and diverse, thus enhancing the reliability and validity of the findings.

Data Gathering Instrument - A survey questionnaire was used in the data gathering of this study. It was derived from a published study, but it is significantly modified to satisfy the objectives of the present study. There are three main instruments used in the study. First is the Assessment of Teacher Teaching self-efficacy Questionnaire (Potential, 2011). The questionnaire is composed of 20 items measured in three factors, with a seven-point scale. It was modified from seven-point scale to four-point scale: Strongly Agree (SA) Agree (A) Disagreed (D) and Strongly Disagree (SD). Another one is the questionnaire on Professional Development compiled by Ramos and Zhang. The questionnaire is composed of 20 items measured in four factors, with a seven-point scale. It was modified from seven-point scale to four-point scale: Strongly Agree (SA) Agree (A) Disagreed (D) and Strongly Disagree (SD). The third questionnaire that was utilized is the teachers' Teaching Performance questionnaire which was also adopted from the study of Ramos and Wang. The questionnaire consists of three subscales and 25 items in total. It has a four-point Likert scale; Strongly Agree (SA) Agree (A) Disagreed (D) and Strongly Disagree (SD). These questionnaires were then evaluated for validity and reliability after they had been modified to reflect the new information.

The questionnaire was tested on 30 instructors as part of a pilot study, which enables the researcher to verify its validity. With the results of the pilot testing in hand, Cronbach's alpha was used to measure the validity and

reliability of the questionnaire. As indicated in the table, the results of the reliability test, which was used to assess the internal consistency of the scales employed in the questionnaire, were found to be satisfactory.

Reliability Test Result

Indicators	Cronbach Alpha	Remarks
Role satisfaction	0.906	Excellent
Teaching atmosphere	0.920	Excellent
Learning Achievements	0.917	Excellent
Subject and professional knowledge	0.922	Excellent
Teaching strategies and methods	0.933	Excellent
Student participation and relationship	0.910	Excellent
Professional Development and Reflection	0.924	Excellent
Personal Awareness	0.957	Excellent
School Influence	0.996	Excellent
Parents and Students	0.921	Excellent

All sections of the instrument exhibit excellent levels of reliability. These results indicate that the instrument consistently measures the intended constructs and can be relied upon to provide accurate and consistent data. The questionnaire was derived from George and Mallery (2003). The Cronbach's alpha values suggest that the items in each section are interrelated and contribute to measuring the variables effectively. Thus, the reliability of the instrument strengthens the credibility and legitimacy of the research findings.

Data Gathering Procedure - The data gathering procedure in this study involved the collection of data from the respondents using a validated survey questionnaire with rating scales. The questionnaires were distributed to 450 Chinese university professors using Google Forms. The research instrument was designed with the help of a research adviser and field experts. After obtaining approval, the researcher retrieved the request letter and communicated with the administrators of the different universities. She also shared the link of the Google form to be answered by the professors. A detailed explanation of the research was provided, including the objectives and possible ethical considerations. The questionnaires were distributed to the respondents upon approval. After gathering the data, the researcher collected the responses, checked for missing responses and input the data into SPSS software for tallying and applying of statistical treatment to be used for the study.

Data Analysis - Weighted mean and ranking was used to Identify the Teaching self-Efficacy, professional development, and performance. Pearson's r was used to test the significant relationship between school organizational climate, teacher resilience, and fairness perceptions. Furthermore, all data were handled with PASW version 26 statistical software to better understand the study's results using an alpha level of 0.05.

Ethical Considerations - To safeguard the privacy of respondents, the researcher refrained from disclosing any individual identities. The researcher ensured confidentiality on personal interactions with the participants, respected their privacy and obtained consent before accessing any sensitive information. The analysis was conducted in a manner that will prioritize the well-being of the participants and ensure that their data will be accurately represented in the study. The researchers abstained from expressing personal viewpoints and solely present information and findings derived from the collected data. Respondents were assured of the confidentiality of their responses and were informed that the survey will solely serve the purpose of this study. Furthermore, the study underwent a rigorous ethics review process and was granted approval.

3. Results and discussion

Table 1Summary Table on Teaching Self-Efficacy

Indicators	Weighted Mean	Verbal Interpretation	Rank
Role Satisfaction	3.09	Agree	1
Teaching Atmosphere	3.07	Agree	2
Learning Achievement	2.92	Agree	3
Composite Mean	3.03	Agree	

Table 1 shows the summary on the assessment of motivation of public-school teachers in terms of role satisfaction, teaching atmosphere and learning achievement. Based on the result, the composite means of 3.03 reflected that the teachers agreed on the indicators in general. This indicates that teachers generally believe in their capabilities to perform effectively in their roles and contribute to student learning. Public elementary school teachers in China reported a high level of role satisfaction, with a weighted mean score of 3.09, indicating agreement. This suggests that teachers generally feel satisfied with their roles and responsibilities within the educational context. The weighted mean score for teaching atmosphere is 3.07, also falling under the "Agree"

ï { □ ♭ Ĥ □ a Ĥ 融 Ā中公共□中□□□ Ⅵ Ä t " '□0 ÿ ÿ ÿ x ÿ " a□ tĀĂ ã□ † t 吂 È x 攀Ĵ 搒ð ∀ ② 氃□ Overall, teachers performed well around instructional self-efficacy, receiving an "Agree" rating. Role satisfaction and classroom climate were particularly strong, but they lagged slightly behind in learning achievement. Continue promoting a positive teaching atmosphere by encouraging collaborative learning environments, student engagement strategies, and effective classroom management techniques (Zhang et al., 2021).

1 able 2
Summary Table on Professional Development

Indicators	Weighted Mean	Verbal Interpretation	Rank
Subject and Professional Knowledge	3.08	Agree	3
Teaching Strategies and Method	3.16	Agree	1
Student Participation and Relationship	3.11	Agree	2
Professional Development and reflection	2.92	Agree	4
Composite Mean	3.07	Agree	

Table 2 presents a summary of professional development aspects among Chinese public elementary school teachers, focusing on four key areas: subject and professional knowledge, teaching strategies and methods, student participation and relationship, and professional development and reflection. The weighted means for these indicators range from 2.92 to 3.16, with a composite mean of 3.07, indicating a general agreement among teachers regarding their professional development efforts.

Items such as teaching strategies and methods got 3.16 while student participation and relationship got 3.11. Teachers show the highest engagement in learning and applying various teaching strategies and methods to enhance their teaching effectiveness. This is followed by subject and professional knowledge (3.08). Peer collaboration and knowledge exchange can be encouraged, creating a platform for teachers to share knowledge and best practices and fostering a collaborative learning environment. Rated slightly lower, is professional development and reflection (2.94). While teachers agree on the importance of professional development and reflection, this area has the lowest rating, suggesting a need for greater emphasis and support. Implementing strategies to help teachers build stronger, more supportive relationships with students to improve engagement and learning (Pianta, 2019).

Table 3Summary Table on Teaching Performance

Indicators	Weighted Mean	Verbal Interpretation	Rank
Personal Awareness	3.01	Agree	3
School Influence	3.14	Agree	2
Parents and Students	3.15	Agree	1
Composite Mean	3.10	Agree	

The indicators assess aspects such as personal reflection, school support, and interaction with parents and students. The weighted means range from 3.01 to 3.15, with a composite mean of 3.10, indicating generally positive perceptions among teachers regarding their teaching performance in these areas. Teachers perceive their performance in terms of interaction with parents and students as the highest among the three dimensions, suggesting strong engagement and effectiveness in this aspect. Research shows that structured reflection enhances teacher effectiveness and promotes continuous professional growth (Hatton et. al.,1995). Teachers may prioritize and effectively manage relationships with parents and students, possibly due to recognition of their

critical role in student success and satisfaction. The lower rating in Personal Awareness may stem from varying levels of personal initiative in seeking feedback, conducting self-assessment, and using teaching performance data for professional growth. Effective school support practices positively impact teacher morale, motivation, and instructional quality (Leithwood et. al.,2000).

Table 4 *Relationship Between Teaching Self-Efficacy and Teachers' Evaluation*

Role Satisfaction	r-value	p-value	Interpretation
Subject and Professional Knowledge	.259**	0.000	Highly Significant
Teaching Strategies and Method	.248**	0.000	Highly Significant
Student Participation and Relationship	.345**	0.000	Highly Significant
Professional Development and reflection	.381**	0.000	Highly Significant
Teaching Atmosphere			
Subject and Professional Knowledge	.137**	0.000	Highly Significant
Teaching Strategies and Method	.177**	0.000	Highly Significant
Student Participation and Relationship	.169**	0.000	Highly Significant
Professional Development and reflection	.164**	0.000	Highly Significant
Learning Achievement			
Subject and Professional Knowledge	.407**	0.000	Highly Significant
Teaching Strategies and Method	.392**	0.000	Highly Significant
Student Participation and Relationship	.407**	0.000	Highly Significant
Professional Development and reflection	.398**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

The table shows the association between teaching self-efficacy and teachers' evaluation. The computed r-values indicate a moderate direct correlation, and the p-values were below the alpha level. The results reveal a significant relationship, implying that higher teaching self-efficacy corresponds to better teachers' evaluations. The data indicate that there are highly significant positive correlations between teaching self-efficacy (measured in terms of role satisfaction, teaching atmosphere, and learning achievement) and various dimensions of teachers' evaluation (subject and professional knowledge, teaching strategies and methods, student participation and relationship, and professional development and reflection). This implies that higher levels of teaching self-efficacy are associated with more favorable evaluations across these dimensions. In role satisfaction, The significant positive correlations suggest that teachers who are more satisfied with their roles tend to evaluate themselves more positively in terms of subject knowledge, teaching methods, student engagement, and professional development. This aligns with the idea that job satisfaction can enhance self-efficacy, which in turn, improves performance evaluations (Klassen, 2018). In teaching atmosphere, although the correlations here are slightly lower than for role satisfaction and learning achievement, they are still significant. This suggests that a positive teaching atmosphere contributes to better self-evaluations, though to a slightly lesser extent. A supportive and conducive teaching environment can enhance teachers' confidence and effectiveness (Schon, 2019). In learning achievement.

The strongest correlations are observed, indicating that teachers who perceive higher learning achievements in their students also rate themselves highly across all evaluation dimensions. This reflects the reciprocal relationship between perceived student success and teacher self-efficacy (Wang et. al.,2020). The analysis shows a strong positive relationship between teaching self-efficacy and teachers' evaluations across multiple dimensions. This underscores the importance of enhancing self-efficacy through targeted professional development programs that address role satisfaction, teaching atmosphere, and learning achievement. By focusing on these areas, it is possible to improve overall teaching effectiveness and professional development among Chinese public primary school teachers.

Table 5 shows the association between Teaching Self-Efficacy and Teaching Performance. The computed r-values indicates a moderate direct correlation, and the resulted p-values were less than the alpha level. Result reveals that there was significant relationship exists and implies that the better is the teaching self-efficacy, the better is the teaching performance. Teachers' self-efficacy is significantly correlated with their role satisfaction in terms of personal awareness, school influence, and relationships with parents and students.

 Table 5

 Relationship Between Teaching Self-Efficacy and Teaching Performance

Role Satisfaction	r-value	p-value	Interpretation
Personal Awareness	.300**	0.000	Highly Significant
School Influence	.301**	0.000	Highly Significant
Parents and Students	.280**	0.000	Highly Significant
Teaching Atmosphere			
Personal Awareness	.131**	0.000	Highly Significant
School Influence	.149**	0.000	Highly Significant
Parents and Students	.156**	0.000	Highly Significant
Learning Achievement			
Personal Awareness	.388**	0.000	Highly Significant
School Influence	.420**	0.000	Highly Significant
Parents and Students	.339**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

This implies that teachers who are confident in their abilities tend to feel more satisfied with their roles, influenced by their understanding of themselves, the support from the school, and the involvement of parents and students. Teachers with higher self-efficacy experience greater role satisfaction due to a strong sense of personal awareness, positive school influence, and good relationships with parents and students. This satisfaction reinforces their teaching performance and effectiveness (Klassen,2018). There is a significant, though weaker, correlation between teaching self-efficacy and the teaching atmosphere. This indicates that teachers' confidence impacts the teaching environment, albeit to a lesser extent compared to other factors. A positive teaching atmosphere, supported by teachers' confidence and efficacy, enhances the overall learning environment. Although the correlations are weaker, they remain significant, indicating that a supportive atmosphere contributes to, and is influenced by, teacher self-efficacy (Tschannen, 2019). The strongest correlations are found between teaching self-efficacy and learning achievement, particularly through personal awareness and school influence. This suggests that teachers who believe in their capabilities and feel supported by the school see better learning outcomes in their students. Supportive school environments that foster professional growth and provide necessary resources bolster teachers' confidence. This positive school influence is crucial for teachers' role satisfaction and their ability to achieve high learning outcomes (Epstein, 2020).

 Table 6

 Relationship Between Professional Development and Teaching Performance

Subject and Professional Knowledge	r-value	p-value	Interpretation
Personal Awareness	.355**	0.000	Highly Significant
School Influence	.401**	0.000	Highly Significant
Parents and Students	.298**	0.000	Highly Significant
Teaching Strategies and Method			_
Personal Awareness	.172**	0.000	Highly Significant
School Influence	.331**	0.000	Highly Significant
Parents and Students	.258**	0.000	Highly Significant
Student Participation and Relationship			
Personal Awareness	.381**	0.000	Highly Significant
School Influence	.379**	0.000	Highly Significant
Parents and Students	.324**	0.000	Highly Significant
Professional Development and reflection			
Personal Awareness	.386**	0.000	Highly Significant
School Influence	.416**	0.000	Highly Significant
Parents and Students	.253**	0.000	Highly Significant

Legend: Significant at p-value < 0.01

Table 6 displays the association between Professional Development and Teaching Performance. The computed r-values indicates a moderate direct correlation, and the resulted p-values were less than the alpha level. Result reveals that there was significant relationship exists and implies that the better is the professional development, the better is the teaching performance. There are significant positive correlations between professional development and subject/ professional knowledge across personal awareness, school influence, and relationships with parents and students.

School influence has the strongest correlation, indicating that supportive school environments are crucial for enhancing teachers' professional knowledge. Professional development enhances teachers' subject and professional knowledge, which is further strengthened by personal awareness, school influence, and relationships with parents and students. Teachers who continuously improve their knowledge base feel more competent and effective (Desimone et. al.,2018). The correlations between professional development and teaching strategies/methods are also significant, with school influence again showing the strongest relationship. This suggests that professional development focused on effective teaching strategies is more impactful when supported by the school environment. There are strong correlations between professional development and student participation/relationships, with personal awareness and school influence showing the highest correlations.

This implies that teachers who engage in professional development are better able to foster student participation and build positive relationships. Teachers who engage in professional development are more aware of their teaching practices and better equipped to engage students. This awareness, combined with school support, enhances student participation and relationships (Hargreaves et. al.,2020). Professional development is highly correlated with reflective practices, particularly through school influence and personal awareness. This indicates that ongoing professional development and reflective practices are intertwined and crucial for teaching performance. Reflective practices are an integral part of professional development. Teachers who regularly reflect on their practices and receive school support are more likely to implement effective teaching strategies and improve their performance (Epstein, 2020).

Table 7Proposed Faculty Development Program to enhance the Teaching Self-Efficacy, Professional Development, And Teaching Performance among Chinese Public Elementary Teachers

Key Result Areas/ Objectives	Program/ Strategies	Success Indicator	Persons Involved
I. Teaching Self-Efficacy 1.1 Learning Achievement – Objective: To elevate teacher self-efficacy to directly impact student learning outcomes.	Unlock Your Teaching Potential Conduct teacher workshops on growth mindset principles and strategies. Establish teacher collaboration groups or communities of practice.	Increased teacher confidence and autonomy by 90%	School Admin Dept Heads HR Director
II. Professional Development 2.1 Professional Development and Reflection Objective: To foster a culture of continuous learning and reflection among teachers, leading to improved instructional practices and student outcomes.	Master Teacher Academy Develop a diverse range of professional development options (workshops, conferences, online courses, etc.). Establish regular collaborative reflection time for teachers (e.g., peer coaching, lesson study).	Increased teacher participation in professional development by 90%	School Admin Dept Heads HR Director.
III. Teaching Performance 3.1 Personal Awareness Objective: To foster self-awareness among teachers to enhance their instructional practices and positively impact student outcomes.	Impactful Instruction Offer workshops on emotional intelligence and its impact on teaching. Facilitate peer observation and feedback sessions. Provide mentorship and coaching opportunities for teachers.	90% of teachers' performance evaluation improved.	School Admin Dept Heads HR Director

Enhancing teacher self-efficacy is critical as it is directly linked to student achievement and motivation. A growth mindset, as proposed, encourages teachers to view challenges as opportunities for growth, which can significantly impact their teaching effectiveness. Schools should implement regular workshops focusing on Carol Dweck's growth mindset theory. These workshops can help teachers develop resilience and adaptability, essential for fostering a positive classroom environment. Establishing communities of practice allows teachers to share best practices, collaborate on problem-solving, and provide mutual support. This collaboration is essential for professional growth and improving teaching strategies. Ongoing professional development is crucial for teachers to stay current with educational research and practices. Offering a variety of professional development

opportunities ensures that teachers can choose what best meets their needs and interests. Collaborative reflection, such as lesson study and peer coaching, helps teachers critically analyze and improve their teaching strategies (Lewis et al., 2019). School should offer a variety of professional development opportunities, including workshops, webinars, and online courses. These should cover current educational technologies, innovative teaching methods, and subject-specific content. Implementing structured reflection times, such as peer coaching and lesson study, can significantly enhance teachers' self-awareness and instructional strategies. These sessions allow teachers to reflect on their practices, receive feedback, and make necessary adjustments. Emotional intelligence (EI) is a key factor in effective teaching. Teachers with high EI can manage their emotions better, understand their students' needs, and create a supportive learning environment. Peer observations and mentorship further support continuous improvement in teaching practices. Self-awareness and emotional intelligence are critical for effective teaching. Emotional intelligence workshops can improve teachers' ability to manage their emotions, leading to better classroom management and student interactions (Jennings et. al.,2018). Peer observation and feedback provide constructive insights, and mentorship programs offer personalized guidance, fostering professional growth and improving teaching performance (Kraft et al., 2018).

4. Conclusions and recommendations

The respondents agreed on all the indicators under teaching self-efficacy, having high regard to role satisfaction. Teachers agreed on all the items under professional development, giving more importance to teaching strategies and methods. In terms of teaching performance, the respondents agreed on all the indicators particularly communicating with parents and students. There exists a highly significant relationship among the three variables implying that teachers with high self-efficacy are more likely to actively seek out professional development opportunities to improve their skills. A faculty development program to enhance the teaching self-efficacy, professional development and teaching performance of Chinese public elementary teachers was proposed.

Schools may encourage and support teachers to pursue further studies, particularly by promoting opportunities for those with undergraduate qualifications to enroll in master's or doctoral programs. This advancement can enhance teaching effectiveness and contribute to professional development by upgrading teachers' qualifications and expertise. School administrators may develop diversified training programs tailored to the varying professional development needs and teaching experiences of their staff. This includes creating specialized induction programs for new teachers and offering ongoing professional development opportunities for seasoned educators to ensure continuous growth. The human resource office may facilitate the creation of a positive learning environment by organizing additional training in classroom management and student counseling. This support will equip teachers with the skills necessary to improve classroom dynamics and manage student behavior more effectively. Teachers may establish and utilize collaborative platforms and resource-sharing mechanisms, with support from schools, to foster interdisciplinary cooperation and interaction. This approach encourages the sharing of best practices and enhances teaching methods through collaborative efforts. The proposed faculty development program may include ongoing support and emphasis on professional development areas such as student engagement, personalized teaching, and home-school collaboration. By focusing on these areas, schools can enhance both teaching effectiveness and student learning outcomes. Future researchers may conduct studies to evaluate the effectiveness of the proposed strategies and their impact on teaching self-efficacy, professional development, and teaching performance.

5. References

Appova, A., & Arbaugh, F. (2018). Teachers' motivation to learn: Implications for supporting professional growth. Professional development in education, 44(1), 5-21.

Biman, B., Desimone, L., Porter, A., & Garet, M. (2000). Designing professional development that works. Educational Leadership, 57(8).

Chen Wenyou(2020). The inherent implication of teacher professional development in the context of education

- Teaching self-efficacy, professional development, and teaching performance among Chinese elementary teachers modernization. Educational Theory and Practice, 40(14).
- Cui Yang, Jiang Yihua (2020). Stage division of professional growth of primary and secondary school teachers and the construction of corresponding standards. *Journal of Educational Science of Hunan Normal University*,9(3).
- Desimone, L. M., & Garet, M. S. (2018). Best practices in teachers' professional development in the United States. Psychology, Society, & Education, 1(1), 115.
- Epstein, J. L. (2020). School, Family, and Community Partnerships: Preparing Educators and Improving Schools. Routledg, 8(45).
- 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.
- Gabriel, R., Day, J. P., & Allington, R. (2011). Exemplary teacher voices on their own development. Phi Delta Kappan, 92(8), 37-41.
- Gistituati, N. (2020, December). Analysis of Factors Affecting Teachers' Productivity. In 2nd International Conference Innovation in Education (ICoIE 2020) (pp. 395-399). Atlantis Press.
- Hargreaves, A., & Fullan, M. (2020). Professional Capital: Transforming Teaching in Every School. Teachers College Press, 9(33).
- Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. Teaching and Teacher Education, 11(1), 3349.
- Huang X (2022). Analysis of rural teacher team construction under rural revitalization strategy [J]. *Journal of Shandong Agricultural Engineering College*, 39(7).
- Jennings, P. A., & Greenberg, M. T. (2019). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. Review of Educational Research, 79(1), 491-525.
- Klassen, R. M., & Tze, V. M. C. (2018). Teachers' selfefficacy, personality, and teaching effectiveness: A metaanalysis. Educational Research Review, 12(59).
- 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.
- Leithwood, K., & Jantzi, D. (2000). The effects of transformational leadership on organizational conditions and student engagement with school. *Journal of Educational Administration*, 38(2), 129.
- Lewis, C., Perry, R., & Murata, A. (2019). How should research contribute to instructional improvement? The case of lesson study. Educational Researcher, 38(3), 240-260.
- Li, M., & Wu, H. (2022). Collaborative professional development and its effects on teaching performance in Chinese elementary schools. *Asia-Pacific Journal of Education*, 42 (1), 112-128.
- Pianta, R. C. (2019). Enhancing Relationships Between Children and Teachers. American Psychological Association, 6 (95).
- Schon, D. A. (2019). The Reflective Practitioner: How Professionals Think in Action. Routledge, 7(56).
- Tschannen Moran, M., & Gareis, C. R. (2019). Principals, trust, and cultivating vibrant schools. Societies, 9(1), 119.
- Wang Feng. (2023). Research on the Current Situation and Countermeasures of Rural Primary School Teachers' Professional Development under the Background of Rural Revitalization Strategy [Bachelor's Thesis, Luoyang Normal University]
- Wang, L., Li, J., & Sun, Q. (2019). Effective professional development strategies for enhancing teacher self-efficacy in China. *Journal of Educational Leadership*, 9(2), 145-161.
- Wang, M. T., & Degol, J. L. (2020). School climate: a review of the construct, measurement, and impact on student outcomes. Educational Psychology Review, 28(2), 3153.
- Wang, Y., & Guo, S. (2023). Enhancing teacher self efficacy through professional development: Evidence from China. Educational Research, 45(2), 185.
- Wang, Y., & Liu, Q. (2023). Enhancing role satisfaction among Chinese elementary school teachers: A longitudinal study. Educational Psychology, 45(2), 2015.
- Zhang, H., & Wang, X. (2021). The relationship between teachers' self efficacy and job satisfaction in Chinese elementary schools. *Asia Pacific Journal of Teacher Education*, 49(1), 444.

- Zhang, L., & Chen, X. (2021). Impact of professional development on teachers' self efficacy and student achievement in Chinese elementary education. Journal of Educational Research, 107(3), 315.
- Zhang, Q., & Yuan, R. (2021). Teacher collaborative learning in professional learning communities: A study of primary schools in China. Asia Pacific Education Review, 22(66), 206.