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The Impact of Professional Development, Employee Engagement on Teaching Performance among University Teachers in Shanghai city, China

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Abstract: In the rapidly evolving higher education sector, particularly in competitive academic environments like Shanghai, China, enhancing teaching performance has become a key priority for universities striving to meet global standards. Professional development (PD) and employee engagement are recognized as critical factors that can significantly influence teaching quality, yet their combined impact on university teachers in Shanghai has not been thoroughly examined. This study aims to investigate how PD and employee engagement contribute to teaching performance among university faculty in Shanghai, with a focus on understanding the mediating role of engagement in this relationship. Using a quantitative research design, data was collected from a sample of 550 university teachers across 23 higher education institutions in Shanghai and analyzed through Structural Equation Modeling (SEM) path analysis. The findings reveal that both PD and employee engagement have a significant positive impact on teaching performance, with engagement showing a slightly stronger direct effect. Additionally, employee engagement mediates the relationship between PD and teaching performance, suggesting that PD not only enhances teachers' skills but also increases their commitment, which further boosts their effectiveness in the classroom. This study contributes to the literature by highlighting the synergistic effects of PD and engagement on teaching performance, providing evidence-based insights for university administrators and policymakers aiming to foster high-quality teaching environments.

Key words: Professional development, employee engagement, teaching performance, university teachers, Shanghai city

1. Introduction

In recent years, the global education landscape has undergone substantial transformation, driven by advances in technology, shifting educational paradigms, and heightened expectations for teaching quality (Mohamed Hashim et al. 2022). In higher education, especially in rapidly modernizing regions such as Shanghai, China, universities are under pressure to deliver high-quality teaching that equips students with the skills required for a competitive global workforce (Postiglione, 2020). Faculty members play a crucial role in realizing these educational objectives (Bruggeman et al. 2021). Consequently, there is a growing emphasis on enhancing university teachers' performance, not only through rigorous curriculum standards but also by supporting teachers' professional growth and engagement in their work.

Professional development (PD) and employee engagement are two critical factors identified in educational research as essential for improving teaching performance (Ji & Ying., 2021). Professional development includes structured training programs, workshops, and other initiatives that foster skill acquisition, pedagogical improvement, and knowledge enhancement (Chaipidech et al. 2021). Effective PD enables teachers to keep pace with new methodologies, technological tools, and academic developments, thus directly influencing their teaching effectiveness (Fairman et al. 2022). Employee engagement, on the other hand, pertains to the level of teachers' commitment, enthusiasm, and emotional investment in their work. Engaged teachers are generally more motivated, perform better in the classroom, and contribute to a more positive educational environment (Zhao, 2024). Understanding how these two factors impact teaching performance is particularly relevant in China, where universities are striving to become world-class institutions by improving both educational outcomes and international rankings.

Shanghai, a leading metropolis in China, is often at the forefront of educational reforms and innovations (Jain et

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al. 2023). Its universities are under continuous pressure to compete on a global scale, pushing them to invest in policies that enhance teaching quality (Qi & Jing, 2022). However, while much attention has been given to student outcomes, the factors that contribute to teachers' performance, particularly the role of PD and engagement, have not been comprehensively studied in this context. With limited research focusing on the intersection of PD, employee engagement, and teaching performance in Shanghai, this study seeks to fill this gap by exploring how these elements interact to influence university teachers' effectiveness in the classroom.

The quality of teaching in higher education significantly impacts student learning outcomes, overall academic experience, and the institution's reputation (Al Hassani et al. 2022). In Shanghai, as universities aspire to global standards, there is an increasing demand for teachers to demonstrate high levels of performance (Lin, 2021). However, university teachers often face numerous challenges that may impede their ability to perform optimally. These challenges include heavy workloads, high expectations for research output, administrative responsibilities, and the constant need to upgrade their teaching skills to match new educational trends. While professional development programs are offered to support teachers, their effectiveness varies, and the extent to which these programs impact teaching performance remains unclear.

Employee engagement is another vital yet underexplored factor in the academic context. Engaged teachers are more likely to be committed to their work and willing to go beyond the minimum requirements, creating a dynamic and supportive learning environment (Greenier et al. 2021). However, the academic profession is often characterized by high levels of stress, job dissatisfaction, and burnout, which can negatively affect engagement levels (Owusu & Dominic., 2021). In Shanghai, where competition and workload pressures are particularly intense, there is a need to understand how engagement influences teaching performance and whether efforts to enhance engagement can mitigate some of the negative effects of job-related stress.

Despite the documented importance of professional development and employee engagement in enhancing teaching performance, empirical studies examining their combined impact on university teachers in Shanghai are scarce. Most existing research has either focused on these factors separately or studied their impact in different contexts outside China. Furthermore, employee engagement has primarily been studied in corporate settings, with few studies exploring how it affects university teachers, particularly in high-stress academic environments like those in Shanghai. Additionally, there is limited research on how professional development and engagement intersect to influence teaching performance. While PD enhances teachers' skills and knowledge, engagement shapes their willingness to apply these competencies effectively in the classroom. The interplay between these two factors may have a synergistic effect, where engaged teachers who receive effective PD are more likely to demonstrate high teaching performance. However, the specific dynamics of this relationship in the context of Shanghai universities remain unexplored.

Given these gaps, this study aims to investigate the impact of professional development and employee engagement on teaching performance among university teachers in Shanghai. The findings of this study are expected to provide valuable insights for university administrators and policymakers in Shanghai, offering evidence-based recommendations on how to design PD programs and engagement strategies that effectively support teachers.

2. Literature review

2.1 Previous Studies on the Relationship Between Professional Development and Teaching Performance

Several studies have explored the positive impact of professional development on teaching performance, consistently finding that well-structured professional development initiatives enhance educators' skills, knowledge, and overall effectiveness in the classroom.

Thahir et al. (2021) conducted a study focusing on how ongoing professional development programs influenced teaching quality. The study found that teachers who regularly participated in professional development workshops and training sessions exhibited improved instructional strategies, classroom management skills, and student engagement techniques. By engaging in activities that fostered reflective practice, these teachers were able to assess their own strengths and weaknesses and refine their teaching methods accordingly. The study concluded that professional development played a crucial role in equipping educators with modern pedagogical skills and strategies, which in turn led to higher levels of student achievement and overall teaching performance.

Malebe et al. (2024) examined the effects of targeted professional development on teaching efficacy and performance. The research, which focused on the intervention that included regular workshops, collaborative planning sessions, and peer observation, showed a significant increase in teachers' self-efficacy and instructional quality. The study observed that when teachers engaged in professional development activities tailored to their specific needs, they gained a deeper understanding of subject content, became more adept at differentiating instruction, and felt more confident in their ability to support diverse learners. This positive change in teachers' attitudes and abilities led to noticeable improvements in student outcomes, as teachers were better equipped to meet students' needs. The study highlighted that professional development not only fosters teacher growth but also contributes directly to enhanced teaching performance in measurable ways.

Furthermore, Sibomana et al. (2024) provided the evidence of the beneficial impact of professional development

on teaching performance. This study involved a comprehensive review of professional development programs that focused on evidence-based instructional practices. The study found that teachers who participated in these programs demonstrated greater proficiency in implementing research-backed strategies in their classrooms, which resulted in more effective teaching and improved student learning experiences. The study noted that professional development allowed teachers to stay current with new developments in education, thus bridging the gap between theory and practice. The study concluded that professional development was an essential component for teachers aiming to continually improve their performance, as it encouraged the adoption of best practices that directly enhanced their effectiveness in the classroom.

These studies highlight the positive influence of professional development on teaching performance, illustrating that when teachers are given opportunities for growth and learning, their ability to deliver high-quality instruction improves significantly.

2.2 Previous Studies on the Relationship Between Professional Development and Employee Engagement

Research has consistently demonstrated the positive influence of professional development on employee engagement. Kwon et al. (2024) found that organizations offering continuous learning opportunities reported higher levels of employee engagement. In this study, professional development programs were shown to foster a sense of growth and accomplishment among employees, which, in turn, contributed to increased motivation and commitment. The findings highlight how professional development initiatives, such as skill-building workshops and mentoring programs, provide employees with a sense of progress in their careers, leading to heightened levels of engagement. Employees who feel that their organization invests in their growth tend to reciprocate by investing more energy, time, and enthusiasm into their work roles. The research supports the idea that professional development is a key driver of employee engagement, as it helps employees feel valued and encourages them to actively contribute to organizational success.

Mdletshe (2023) conducted a study that examined how professional development impacts employee engagement and found that employees who had access to regular training and development programs showed a sustained increase in engagement levels compared to those who did not have such opportunities. The research emphasized the importance of ongoing development rather than one-time training events, suggesting that a continuous investment in employee growth creates a positive feedback loop, where employees feel motivated to perform well due to the consistent support for their professional advancement. According to the study, regular professional development instills a sense of purpose and belonging, as employees perceive these opportunities as a sign that their organization is committed to their long-term success. This perception fosters a deeper psychological connection between the employees and the organization, resulting in enhanced engagement levels over an extended period.

Further evidence of the positive relationship between professional development and employee engagement is provided by Contreras et al. (2021). Their findings showed that employees who participated in structured professional development programs reported significantly higher engagement scores compared to those who did not participate. The study argued that professional development empowers employees by enhancing their skills and competencies, which boosts their confidence in handling job responsibilities. This increased confidence translates into a greater willingness to take initiative and participate actively in organizational activities. The study concludes that professional development is not just a tool for skill enhancement but also a powerful motivator that strengthens employees' connection to their work and their organization. The study suggests that organizations looking to improve employee engagement should prioritize accessible and well-structured development programs, as these have a direct and positive effect on employees' engagement levels.

In summary, existing literature highlights a clear, positive correlation between professional development and employee engagement. These studies underscore the value of investing in employee development as a means of building a more engaged and committed workforce.

2.3 Previous Studies on the Relationship Between Employee Engagement and Teaching Performance

Numerous studies have examined the influence of employee engagement on teaching performance, highlighting a clear positive relationship between these two variables.

Postrado et al. (2023) conducted a quantitative study to explore how engagement among educators impacts their performance in teaching. The study surveyed a large sample of teachers and used statistical analysis to assess the correlation between their self-reported engagement levels and observed teaching effectiveness. The study found that teachers with higher engagement levels demonstrated significantly better teaching performance, characterized by improved classroom management, stronger student engagement, and higher overall effectiveness in lesson delivery. According to the study, engaged teachers are more likely to invest additional effort into preparing lessons, remain attentive to student needs, and foster a positive classroom environment, all of which contribute to enhanced teaching performance. This study underscores the importance of engagement in maximizing teachers' instructional quality and student outcomes.

Al Zeer et al. (2023) found a positive influence of employee engagement on teaching performance through a longitudinal study conducted over a two-year period. By tracking a cohort of teachers, they assessed how changes in engagement levels corresponded with variations in teaching performance. The findings revealed that teachers who reported an increase in engagement over time also demonstrated consistent improvements in their teaching effectiveness, as evidenced by student evaluations and peer reviews. The study concluded that when teachers feel engaged, they are more committed to their professional responsibilities, which directly impacts their teaching performance. The study also noted that engaged teachers tend to develop a deeper connection with their students and exhibit greater enthusiasm in their instructional delivery, factors that enhance their overall performance. This research reinforces the idea that fostering engagement can lead to measurable improvements in how teachers perform their duties.

Beri & Gulati (2021) employed a mixed-methods approach to investigate the positive influence of employee engagement on teaching performance. Through surveys, interviews, and classroom observations, the study found a strong correlation between high engagement levels and superior teaching performance. The quantitative results showed that teachers who rated themselves as highly engaged were more likely to receive favorable performance evaluations, both from students and administrative supervisors. Qualitative data from interviews supported these findings, with engaged teachers expressing a greater sense of purpose, motivation, and satisfaction in their roles. The study noted that these intrinsic factors motivated teachers to go above and beyond in their instructional practices, thus enhancing their teaching effectiveness. This study contributes to the growing body of literature that highlights the role of engagement as a critical driver of teaching performance, suggesting that educational institutions should prioritize strategies to boost teacher engagement.

Research consistently shows a positive correlation between employee engagement and teaching performance. These studies affirm that enhancing teacher engagement is crucial for improving teaching performance, emphasizing the need for educational institutions to implement supportive measures.

3. Research Methodology

This study employs a quantitative research methodology to explore the impact of professional development and employee engagement on teaching performance among university teachers in Shanghai. Quantitative research is instrumental in this context because it allows for precise measurement and statistical analysis of relationships between variables, facilitating a deeper understanding of the underlying patterns and effects.

The quantitative method is chosen for its capability to handle large datasets and provide objective results that are generalizable across similar settings. This approach is essential in educational research, as it supports the development of reliable conclusions that can inform policy and practice. In studying the influence of professional development and employee engagement on teaching performance, it is crucial to quantify these constructs to ascertain their direct and indirect effects on the outcome variable, teaching performance. The quantitative method enables the utilization of various statistical tools to analyze relationships and effects, making it the most suitable approach for addressing the research questions posed in this study.

The study targets university teachers from 23 renowned institutions of higher education in Shanghai, China. These institutions collectively employ a total of 51,292 teachers. To ensure the statistical robustness of the analysis, a sample size of 550 teachers has been determined through power analysis, which considers the expected effect sizes, the number of predictors, and the desired statistical power level. The sample is chosen using a stratified random sampling technique to ensure that it is representative of the broader population of university teachers in Shanghai. Each institution acts as a stratum, and teachers are randomly selected from each to participate in the study. This method helps to manage the variability within the population and increases the generalizability of the findings.

Data collection is conducted using a survey instrument that incorporates Likert-9 scale items adapted and designed from established instruments used in previous research. This scale allows for a refined assessment of degrees of agreement or disagreement with statements pertaining to professional development experiences and levels of engagement, providing a more nuanced insight into the attitudes and perceptions of the respondents. The survey includes sections designed to measure the intensity and quality of professional development activities, the degree of employee engagement, and self-reported measures of teaching performance. Prior to deployment, the survey undergoes a pilot test with a small subset of the target population to ensure clarity, reliability, and validity of the instrument.

The study distributed a total of 550 online questionnaires specifically designed to capture a broad spectrum of demographic data during the period from October 20 to November 20, 2024 in 23 renowned institutions of higher education in Shanghai, China. These questionnaires were aimed at university teachers, encompassing a wide range of disciplines and academic qualifications. Upon closing the data collection phase, the study reviewed the returned questionnaires to ascertain their validity, resulting in the exclusion of 15 responses due to incompleteness or errors in submission. Consequently, a robust dataset of 535 valid questionnaires was established for further analysis.

The primary data analysis will involve descriptive statistics to summarize the data and check for normality, variance homogeneity, and the presence of outliers. Following this, Structural Equation Modeling (SEM) path analysis will be utilized to examine the relationships between professional development, employee engagement, and teaching performance. SEM is chosen for its ability to model complex relationships between observed and latent variables and to test the direct and indirect effects within the hypothesized model. This analysis will help in understanding the impact of

professional development and employee engagement on teaching performance while controlling for potential confounding variables such as age, years of teaching experience, academic discipline, and previous training.

The SEM analysis includes the evaluation of model fit indices such as the Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA), to ensure that the model adequately fits the data. Additionally, the study will use bootstrapping methods to assess the significance of indirect effects within the model, providing a robust analysis of the pathways through which professional development and employee engagement influence teaching performance.

This research methodology section outlines a comprehensive approach using a quantitative framework to rigorously assess and quantify the effects of professional development and employee engagement on teaching performance in a large sample of university teachers in Shanghai. This methodological design is expected to yield reliable and actionable insights that can guide future interventions and policies aimed at enhancing teaching effectiveness in higher education.

The study aims to analyze the influence of professional development and employee engagement on teaching performance among university teachers in Shanghai city, China based on the following the research process as presented in Fig. 1.

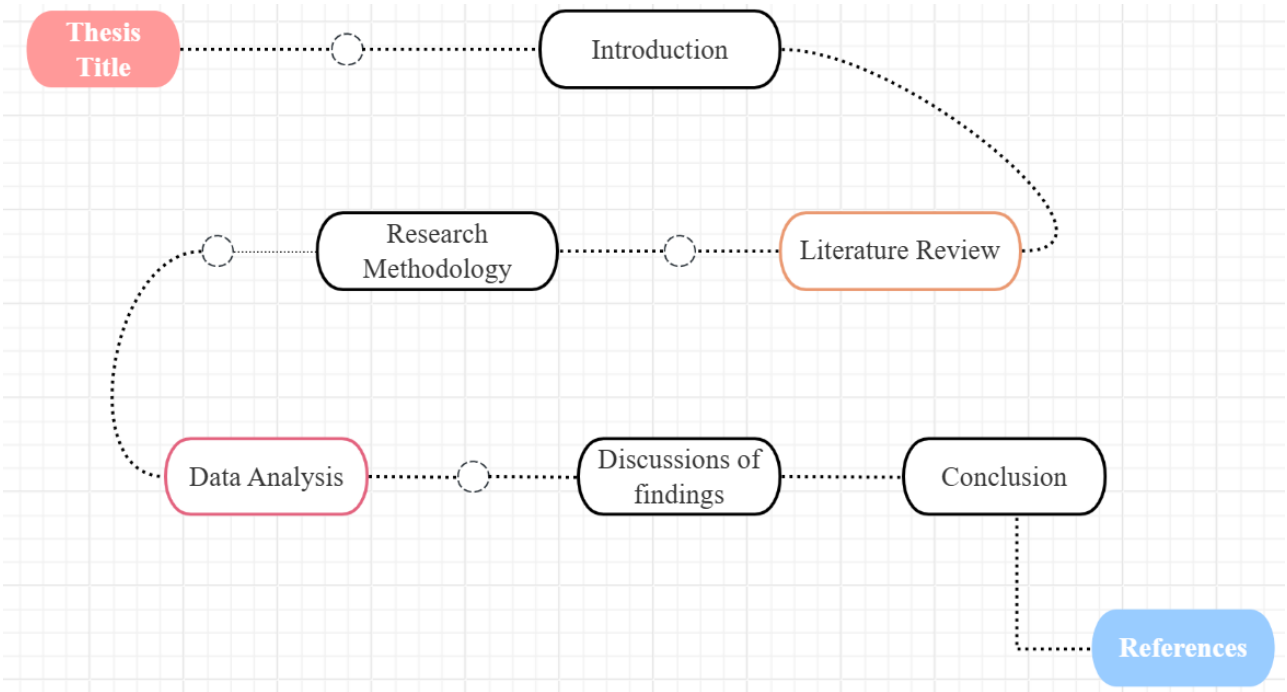

Figure 1. Research process

4. Data Analysis

The study adopted SEM path analysis via AMOS 28.0 software to analyze the relationship between three key latent variables of the study, including professional development, employee engagement and teaching performance, with the details path analysis results shown in Table 1.

Table 1. SEM path analysis results

Path	Estimate	S.E.	C.R.	P-value	Std Path coefficient
Professional development--->Teaching performance	0.641	0.059	10.864	***	0.538
Professional development--->employee engagement	0.653	0.058	11.259	***	0.549
Employee engagement -->--->Teaching performance	0.729	0.063	11.571	***	0.628

The analysis of direct effects from the SEM path results highlights the significant role of both professional development and employee engagement in enhancing teaching performance among university teachers in Shanghai. Each pathway, including professional development to teaching performance, professional development to employee engagement, and employee engagement to teaching performance, demonstrates strong and statistically significant relationships. These findings underscore the importance of these factors within the academic environment, providing actionable insights for university administrators aiming to improve instructional quality.

The direct effect of professional development on teaching performance is notable, with a standardized path coefficient of 0.538 and a highly significant p-value ($p < 0.001$). This suggests that professional development has a strong positive impact on teaching performance, indicating that teachers who participate in ongoing training and skill-building activities tend to perform better in the classroom. Professional development initiatives allow teachers to keep up with new pedagogical strategies, technological advancements, and subject-specific knowledge, all of which can enhance their effectiveness in delivering high-quality instruction. The significance of this path highlights the value of structured, well-designed professional development programs to directly improve teaching quality, particularly in a competitive and rapidly evolving educational landscape like Shanghai.

In addition to its direct impact on teaching performance, professional development also has a substantial positive effect on employee engagement, with a standardized path coefficient of 0.549 and a significant p-value ($p < 0.001$). This indicates that professional development not only improves teachers' instructional skills but also increases their commitment, motivation, and emotional investment in their roles. When teachers feel that their institutions support their growth through professional development opportunities, they are likely to feel more valued and connected to their work, resulting in higher engagement levels. This relationship suggests that professional development can play a dual role, both directly enhancing teaching effectiveness and fostering a more engaged, motivated teaching workforce. By investing in teachers' professional growth, universities can boost both performance and morale, creating a positive cycle that benefits the overall educational environment.

The strongest direct effect observed in this study is the impact of employee engagement on teaching performance, with a standardized path coefficient of 0.628 and a highly significant p-value ($p < 0.001$). This robust relationship suggests that employee engagement is a critical factor influencing teaching effectiveness. Engaged teachers, those who are enthusiastic, committed, and emotionally invested in their roles, tend to go above and beyond in their teaching practices, leading to better classroom management, stronger student engagement, and improved lesson delivery. High levels of engagement encourage teachers to invest more effort and attention into their instructional activities, which translates into measurable improvements in their performance. Given that employee engagement has a slightly stronger direct effect on teaching performance than professional development, it may be particularly beneficial for universities to prioritize strategies that cultivate engagement. This could include creating supportive work environments, recognizing teachers' contributions, and offering opportunities for meaningful involvement in decision-making.

In summary, the analysis of direct effects reveals that both professional development and employee engagement significantly enhance teaching performance, with engagement showing the strongest direct effect. Professional development influences teaching performance both directly and indirectly, by also boosting engagement levels. These findings suggest that a comprehensive approach that combines skill-building opportunities with efforts to foster engagement could be particularly effective in improving teaching quality among university teachers in Shanghai.

Besides, the study also utilized bootstrapping method to check the mediating role of employee engagement in the relationship between professional development and teaching performance with the analysis results displayed in Table 2.

Table 2. Mediating effect analysis of employee engagement

Standard effect	Path	Effect coefficient	95% confidence interval		S.E.	P-value
			Lower	Upper		
Total effect	Professional development--->Teaching performance	0.883	0.834	0.932	0.025	***
Direct effect	Professional development--->Teaching performance	0.538	0.491	0.585	0.024	***
Indirect effect	Professional development—Employee engagement->Teaching performance	0.345	0.306	0.384	0.020	***

The mediating effect analysis presented in Table 2 provides insights into how employee engagement mediates the relationship between professional development and teaching performance among university teachers in Shanghai. The table displays the total, direct, and indirect effects of professional development on teaching performance, which helps understand both the direct impact of professional development and the additional indirect impact mediated by employee engagement.

The total effect of professional development on teaching performance is 0.883, with a 95% confidence interval of 0.834 to 0.932 and a standard error of 0.025. This high effect coefficient, which is statistically significant ($p < 0.001$), indicates that professional development has a strong overall impact on teaching performance. The total effect represents the combined influence of both the direct and indirect effects, showing that professional development is indeed a critical factor in enhancing teaching effectiveness.

The direct effect of professional development on teaching performance, without considering the mediation by employee engagement, is 0.538. This effect is also statistically significant ($p < 0.001$) with a 95% confidence interval of

0.491 to 0.585 and a standard error of 0.024. This result suggests that professional development alone has a substantial direct impact on teaching performance. Teachers who engage in professional development activities are better equipped with skills, pedagogical knowledge, and up-to-date teaching methods, which directly contribute to improved classroom performance.

The indirect effect of professional development on teaching performance, mediated by employee engagement, is 0.345, with a 95% confidence interval of 0.306 to 0.384 and a standard error of 0.020. This indirect effect is also statistically significant ($p < 0.001$), confirming that employee engagement plays a meaningful mediating role. This suggests that part of the impact of professional development on teaching performance occurs through its influence on engagement. When teachers participate in professional development, they not only improve their teaching skills but also feel more committed, motivated, and emotionally invested in their work. This increased engagement, in turn, positively influences their teaching performance. In other words, employee engagement acts as a conduit through which the benefits of professional development are further amplified in the classroom.

5. Discussion of Findings

The purpose of this study was to explore the impact of professional development and employee engagement on teaching performance among university teachers in Shanghai. Using structural equation modeling (SEM) to analyze the relationships among these variables, the results indicate that both professional development and employee engagement significantly and positively influence teaching performance. Furthermore, employee engagement plays a mediating role in the relationship between professional development and teaching performance, suggesting that engaged teachers who participate in professional development are more likely to apply their enhanced skills and knowledge effectively in the classroom.

The SEM analysis reveals a strong, positive relationship between professional development and teaching performance, with a standardized path coefficient of 0.538 ($p < 0.001$). This finding supports previous research that underscores the importance of professional development as a tool for enhancing teachers' instructional abilities and overall classroom effectiveness. For instance, Fischer et al. (2018) found that teachers who regularly participated in professional development workshops demonstrated improvements in instructional strategies, classroom management, and student engagement techniques. The results echo findings of Fischer et al. (2018) by showing that professional development provides university teachers in Shanghai with updated pedagogical skills, knowledge of contemporary teaching methods, and insights into best practices, all of which directly enhance their teaching performance. In Shanghai's competitive academic environment, professional development enables teachers to build resilience and adapt to shifting demands, thereby sustaining high levels of performance in their roles. These findings reinforce the need for universities to prioritize and invest in comprehensive professional development programs that are responsive to teachers' specific needs and aligned with institutional goals.

The analysis shows a significant positive relationship between professional development and employee engagement, with a standardized path coefficient of 0.549 ($p < 0.001$). This finding aligns with previous studies that have demonstrated the role of professional development in fostering higher levels of employee engagement. For example, Shuck et al. (2014) found that continuous learning opportunities increase employees' motivation and commitment, as they feel valued and supported by their organizations. In the academic context, providing university teachers with opportunities for professional growth appears to enhance their sense of purpose and commitment, which ultimately translates into higher engagement levels. In Shanghai, where universities are striving to meet global standards, fostering engagement through professional development could be a valuable strategy for institutions looking to create a motivated and dynamic academic workforce. Given that engaged teachers are more likely to be committed, enthusiastic, and willing to go beyond minimum requirements, investing in professional development may have far-reaching impacts on institutional culture and educational outcomes.

Employee engagement emerged as a strong predictor of teaching performance in this study, with a standardized path coefficient of 0.628 ($p < 0.001$). This finding is consistent with existing literature on the positive effects of employee engagement on teaching quality. Kilonzo et al. (2018) found that engaged teachers demonstrate improved classroom management, stronger student engagement, and more effective lesson delivery. This research results extend these findings to the context of Shanghai's universities, showing that teachers who are emotionally invested in their roles tend to perform better in terms of instructional quality and student interaction. In competitive academic environments like Shanghai, where institutions are often ranked based on student satisfaction and teaching quality, fostering teacher engagement could play a crucial role in achieving institutional success.

The mediating analysis reveals that employee engagement mediates the relationship between professional development and teaching performance, with an indirect effect of 0.345 ($p < 0.001$). This indicates that while professional development directly improves teaching performance, part of its impact is channeled through enhanced engagement. When teachers engage in professional development, they not only acquire new skills but also experience an increase in engagement, which in turn boosts their teaching performance. This mediation effect supports the argument that professional development fosters a sense of accomplishment and growth, thereby increasing teachers' emotional investment in their work. The total effect of professional development on teaching performance (0.883) reflects both the direct impact of skill acquisition and the indirect effect through engagement. This finding aligns with Kahn's & William

A., (1990) theory of engagement, which suggests that individuals who feel psychologically invested in their roles are more likely to apply their skills and knowledge effectively. In Shanghai's context, where workload pressures are high, fostering engagement through professional development could mitigate burnout and enhance teaching performance, creating a virtuous cycle that benefits both teachers and students. This mediating effect also has practical implications for university administrators. By recognizing the dual impact of professional development on both skill enhancement and engagement, administrators can design programs that not only improve teaching competence but also foster emotional and motivational commitment. For instance, incorporating collaborative learning, mentorship, and opportunities for self-reflection into professional development initiatives could increase engagement, allowing teachers to experience a deeper sense of connection with their work.

6. Conclusion

The study on the impact of professional development and employee engagement on teaching performance among university teachers in Shanghai has illuminated significant relationships and pathways for enhancing educational quality in higher education. The findings emphasize the dual benefits of professional development; not only does it directly enhance teaching performance by equipping educators with updated skills and pedagogical strategies, but it also significantly boosts employee engagement, which in turn further enhances teaching effectiveness. This study underscores the mediating role of engagement, revealing that increased engagement from professional development activities leads to more effective application of acquired skills in the classroom. For university administrators and policymakers in Shanghai, the implications are clear: investment in comprehensive professional development programs that also prioritize emotional and professional growth can lead to a more committed, motivated, and effective teaching staff. These insights are crucial for universities aiming to compete on a global stage and meet the demands of modern educational excellence. Therefore, strategic planning that integrates professional development with engagement initiatives could potentially transform the academic landscape, promoting not only individual teacher success but also broader institutional achievements in teaching quality and student outcomes.

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Conflict of Interest

The authors declare no conflicts of interest.

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