

The Relationship between Reflective Teaching and Teacher Efficacy at Zhengzhou Technology and Business University in Henan Province, China

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Abstract: This study aimed to examine the relationship between reflective teaching and teacher efficacy among teachers at Zhengzhou Technology and Business University in Zhengzhou, Henan Province, China. A quantitative research method was adopted, and data was collected through a questionnaire survey. The research instruments included the Reflective Teaching Questionnaire developed by Babaei and Abednia (2016) and the Teachers' Sense of Efficacy Scale proposed by Tschannen-Moran and Hoy (2001). A total of 297 questionnaires were distributed, and 295 valid questionnaires were returned, yielding an effective response rate of 99.33%. The data were analyzed using SPSS 26.0 through descriptive statistics, difference analysis, and Pearson correlation analysis. The findings showed that the overall mean score of reflective teaching was 3.40 and the overall mean score of teacher efficacy was 3.49, indicating that both variables were at a moderate level. This suggests that teachers had developed a certain degree of reflective awareness and teaching confidence, although there was still room for further improvement. In the difference analysis, age and teaching experience showed significant differences in some dimensions, whereas gender, academic qualification, and professional title showed no significant differences. In addition, the correlation analysis revealed a significant positive relationship between reflective teaching and teacher efficacy, with a correlation coefficient of 0.867. The study indicated that improving teachers' level of reflective teaching could help enhance their teacher efficacy and provide empirical support for improving professional development support mechanisms in higher education institutions.

Keywords: Reflective Teaching, Teacher Efficacy, University Teachers

1. INTRODUCTION

In international educational research, teacher efficacy has been widely regarded as an important psychological variable influencing classroom teaching quality and student learning outcomes. Studies have shown that teachers' beliefs in their own teaching ability affect not only their choice of instructional strategies, classroom management, and teaching investment, but also their persistence and professional judgment in complex teaching situations. At the same time, with the deepening of research on teacher professional development, international scholars have increasingly emphasized the role of reflective teaching, arguing that continuous reflection helps teachers transform teaching experience into professional knowledge and strengthen their sense of control and confidence in the teaching process. Therefore, the relationship between reflective teaching and teacher efficacy has become an important topic in international research. In the context of Chinese higher education, private

undergraduate universities play an important role in expanding higher education opportunities and cultivating applied talents, but the context of teacher development in these institutions has its own characteristics. Compared with public universities, teachers in private undergraduate universities often face heavier teaching workloads, stronger result-oriented teaching evaluation, and a relatively higher proportion of young teachers. Under such circumstances, whether teachers can continuously adjust their teaching strategies through reflective teaching and maintain stable teacher efficacy is directly related to the improvement of classroom teaching quality and teacher professional development. However, existing studies have mainly focused on primary and secondary school teachers or foreign language teachers, while systematic research on teachers in private undergraduate universities remains limited. Zhengzhou Technology and Business University, as a private undergraduate university in Zhengzhou, Henan Province, has continuously

own teaching ability tend to become more positive and stable (Loughran, 2002; Zeichner & Liston, 2014). This indicates that reflective teaching is not merely a simple review of classroom experience, but also an important process for promoting teachers' professional cognitive development.

Second, reflective teaching is closely related to teachers' positive teaching emotions and self-efficacy judgments. According to Social Cognitive Theory, individuals' efficacy beliefs are largely influenced by the way they interpret past experiences (Bandura, 1997). In teaching contexts, teachers with a higher level of reflection are more likely to view teaching difficulties as issues that can be adjusted and improved, rather than simply attributing them to personal inadequacy. Existing research has found that teachers with higher reflection frequency and greater depth of reflection usually demonstrate stronger persistence and more stable professional confidence when facing teaching pressure and classroom challenges, and their level of teacher efficacy is correspondingly higher (Skaalvik & Skaalvik, 2010).

Third, reflective teaching is also considered an important bridge connecting teachers' professional learning and teacher efficacy. Relevant studies have shown that through reflection on training experiences, peer feedback, and classroom practice, teachers are able to gradually transform external learning resources into their own professional understanding and teaching beliefs, thereby strengthening teaching confidence (Postareff et al., 2007). This suggests that reflective teaching is not merely a psychological activity at the individual teacher level but also functions to some extent as a mechanism for integrating external support with internal beliefs.

In studies that directly explored the relationship between the two constructs, Babaei and Abednia (2016) conducted an empirical analysis with teachers and found a significant positive correlation between reflective teaching and teacher efficacy. Teachers with higher levels of reflection tended to show stronger efficacy beliefs in instructional strategies, classroom management, and student interaction. This study provided direct evidence for the positive relationship between reflective teaching and teacher efficacy and laid an important foundation for subsequent research.

Overall, existing studies generally support the view that there is a significant positive relationship between reflective teaching and teacher efficacy. The more teachers can engage in systematic

reflection, meaning construction, and professional examination of their teaching experiences, the higher their level of teacher efficacy tends to be. This conclusion has been supported to varying degrees across different countries, educational stages, and teaching contexts, and it also provides relatively sufficient theoretical and empirical support for the present study to examine the relationship between reflective teaching and teacher efficacy among teachers at Zhengzhou Technology and Business University.

In the Chinese higher education context, studies on the relationship between reflective teaching and teacher efficacy have gradually increased in recent years and have formed a certain research foundation. Overall, the existing literature presents several major characteristics. First, the topic has received growing attention, but samples are still concentrated largely in specific disciplinary groups, especially foreign language teachers. Second, the measurement of teacher efficacy has become increasingly standardized, but its suitability across different teacher groups still requires further examination. Third, most existing studies rely on cross sectional surveys and correlation analysis, with limited attention to dynamic change and contextual differences. Fourth, contextualized studies focusing on specific institutions, especially private undergraduate universities, remain relatively scarce.

First, in terms of empirical research subjects, many domestic studies have focused on university foreign language teachers or college English teachers and have accumulated a relatively clear body of evidence in this area. Han and Wang (2021), using a sample of Chinese university English teachers, found a significant positive relationship between teacher self-efficacy and reflective practice, while efficacy beliefs and positive psychological variables such as work engagement jointly influenced reflective activities. Their study suggests that in the professional development of Chinese university teachers, teacher efficacy and reflective teaching may have a mutually reinforcing relationship. Although such studies mainly focus on language teachers, their interpretation of the relationship between teachers' reflective activities and teaching beliefs still offers strong reference value for broader university teacher research.

Second, regarding measurement tools, the localization of teacher efficacy scales in China has continued to advance and has provided methodological support for research on university teachers. The teacher efficacy scale proposed by Tschannen Moran and Hoy (2001) has become a

widely used instrument in this field because of its clear structure and broad application. Concerning its adaptation in Chinese contexts, existing studies have examined translation quality, factor structure, and measurement equivalence, and have pointed out that structural differences may appear across different Chinese samples. Therefore, in specific studies, reliability and validity testing should still be conducted based on sample characteristics (Tsui & Kennedy, 2009; Ruan et al., 2015). In addition, the studies of Lu et al. (2021) and Shao et al. (2025) also indicated that different teacher or preservice teacher groups may show variation in scale model fit, suggesting that university teacher research should not simply adopt the scale without verification, but should pay attention to its suitability for the specific research sample.

Third, in terms of research design, studies on the relationship between reflective teaching and teacher efficacy in Chinese higher education still mainly rely on cross sectional questionnaire surveys and correlation analysis. Most studies support a significant positive relationship between the two, but different interpretations remain regarding the direction of this relationship. Some studies emphasize that reflective teaching helps teachers develop more positive efficacy beliefs because teachers enhance their sense of control over teaching tasks through analyzing and adjusting teaching experiences, which is consistent with the explanation of efficacy belief formation in Social Cognitive Theory (Bandura, 1997). Other studies, however, have found that teachers with higher efficacy are more willing to invest time in reflection and self-improvement, so the statistical results suggest that efficacy may predict reflective activity (Han & Wang, 2021). This indicates that under the realistic conditions of heavy workloads and ongoing teaching reform in Chinese universities, reflective teaching and teacher efficacy are more likely to show a pattern of mutual connection and mutual reinforcement.

Finally, from the perspective of research contexts, studies focusing on specific universities, especially private undergraduate institutions, are still clearly insufficient. Existing samples are mostly drawn either from broad teacher populations or from a single disciplinary field and therefore cannot fully address whether the relationship between reflective teaching and teacher efficacy differs across institutional types, resource conditions, and organizational environments. In other words, there is still considerable room to expand research on how reflective teaching and teacher efficacy are related in concrete university settings. For a private

undergraduate institution such as Zhengzhou Technology and Business University, teachers face conditions in terms of teaching workload, evaluation mechanisms, and professional development support, so conducting localized and contextualized research is of strong practical significance.

In summary, research on the relationship between reflective teaching and teacher efficacy in the Chinese higher education context has already developed a certain theoretical and methodological basis and has accumulated relatively clear empirical evidence in specific teacher groups. However, existing studies still have several limitations, including relatively concentrated sample types, heavy reliance on cross sectional designs, and insufficient contextualized evidence (Han & Wang, 2021; Tsui & Kennedy, 2009; Ruan et al., 2015; Lu et al., 2021; Shao et al., 2025). Therefore, systematically examining the relationship between reflective teaching and teacher efficacy in the specific context of Zhengzhou Technology and Business University can not only supplement the empirical evidence on teachers in private undergraduate universities, but also provide more targeted references for teacher professional development and teaching quality improvement at the institutional level.

2. MATERIALS AND METHODS

The population of this study consisted of in-service teachers at Zhengzhou Technology and Business University in Zhengzhou, Henan Province, China. The study focused on the relationship between reflective teaching and teacher efficacy among university teachers. According to information provided by the university, the total number of in service teachers was 1,229, distributed across the School of Engineering, School of Business, School of Finance and Taxation, School of Information Engineering, School of Literature and Law, School of Arts, School of Marxism, School of Physical Education, the Basic Teaching Department, and the Mental Health Center. According to the sample size table developed by Krejcie and Morgan (1970), when the population size was 1,229, the recommended minimum sample size was 297. In this study, 297 questionnaires were distributed and 295 valid questionnaires were finally collected, with an effective response rate of 99.33%.

The questionnaire used in this study was developed based on the Reflective Teaching

Technology and Business University were both at a moderate level. Significant differences were found in age and teaching experience, while no significant differences were found in gender, academic qualification, or professional title. In addition, reflective teaching was significantly and positively correlated with teacher efficacy, suggesting that teachers with higher levels of reflective teaching tended to report stronger efficacy beliefs.

4. CONCLUSION

This study found that reflective teaching and teacher efficacy among teachers at Zhengzhou Technology and Business University were both at a moderate level, indicating that teachers had developed a certain degree of reflective awareness and teaching confidence, but there was still room for further improvement. In terms of demographic differences, no significant differences were found by gender, educational level, or professional title, while significant differences were found in some dimensions by age and teaching experience, suggesting that career development stage had a stronger influence on teachers' professional psychological characteristics. In addition, reflective teaching was significantly and positively correlated with teacher efficacy, indicating that the higher the level of teachers' reflective teaching, the stronger their sense of teaching efficacy tended to be. Overall, this study not only revealed the general status and difference patterns of reflective teaching and teacher efficacy among teachers at Zhengzhou Technology and Business University, but also suggested that the university should strengthen reflective support, improve teacher development mechanisms, and provide more targeted training in order to promote teachers' professional growth and improve teaching quality.

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