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The Self-Efficacy of Physical Preservice Teacher Education in China: A Predictive Analysis of Career Intention

Jian Wang[1,2*], Hamdan Mohd Ali[2], Zi-Xu Wang[3], and Lei Wang[4]

[1] College of Physical Education, Haikou University of Economics, China

[2] City Graduate School, City University, Selangor Darul Ehsan, Malaysia

[3] School of International Education, Xuzhou University of Technology, Xuzhou, China

https://orcid.org/0000-0002-3253-4555

[4] Faculty of Hospitality and Tourism, Xuzhou University of Technology, Xuzhou, China

https://orcid.org/0000-0002-3288-0546

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Corresponding Author:
Jian Wang

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ABSTRACT: This study examines the relationship between teacher self-efficacy (TSE) and career intention among physical education (PE) preservice teachers in China. Using a mixed-methods approach, data were collected from 176 preservice teachers enrolled in the PE major education program. All measurement items were adapted from previous studies. Structural equation modelling revealed that all three TSE dimensions (classroom management, instructional strategies, and student engagement) significantly and positively predicted preservice teachers' intention to become PE teachers, with instructional strategies showing the strongest predictive power (5.29% variance explained). Among achievement goals, only self-approach goals significantly predicted career intention, accounting for 19.36% of variance. Qualitative interviews revealed that mentor teacher support, student teaching experiences, and professor guidance were key factors in the development of self-efficacy. The findings provide empirical evidence supporting Bandura's self-efficacy theory in the Chinese PE teacher education context and offer practical implications for enhancing teacher preparation programs to address China's growing need for qualified PE teachers.

1 INTRODUCTION

Physical education (PE) plays a crucial role in China's educational system, particularly in light of recent government initiatives aimed at improving youth health and fitness. The Chinese Ministry of Education's 2025 guidelines for strengthening PE teacher (teacher team building) represent a significant policy shift, establishing concrete targets for teacher-student ratios and emphasising the integration of artificial intelligence and digital literacy in PE instruction (Ministry of Education of China, 2025). Despite these policy advancements, China faces persistent challenges in recruiting and retaining qualified PE teachers, with current estimates indicating approximately 879,600 PE teachers nationwide, a 72.20% increase since 201,2 but still insufficient to meet demand (Education China, 2024).

The shortage of PE teachers is particularly acute in rural and underdeveloped regions, where resources are limited and professional development opportunities scarce. This context makes the study of preservice PE teachers' self-efficacy (TSE) and career intentions particularly timely and relevant. As China seeks to implement its ambitious educational reforms, understanding the factors that influence prospective teachers' commitment to the profession becomes essential for developing effective recruitment and retention strategies.

In particular, despite the growing body of research on TSE internationally, relatively few studies have examined this construct specifically within the Chinese PE preservice teacher context. Existing research has primarily focused on in-service teachers or preservice teachers in general education settings, leaving a significant gap in understanding how self-efficacy develops and functions among those preparing to teach physical education in China's unique educational environment.

This study is grounded in Albert Bandura's (1977, 1997) self-efficacy theory, which posits that individuals' beliefs about their capabilities to execute courses of action significantly influence their motivation, behaviour, and persistence in facing challenges. In the context of teacher education, TSE refers to teachers' beliefs in their ability to positively affect student learning and development (Tschannen-Moran & Woolfolk Hoy, 2001). Bandura identified four primary sources of self-efficacy: mastery experiences, vicarious experiences, social persuasion, and physiological/emotional states.

The study also draws upon achievement goal theory (Elliot, 1999; Elliot, Murayama & Pekrun, 2011), which distinguishes between mastery goals (i.e., focus on developing competence) and performance goals (i.e., focus on demonstrating competence relative to others). This theoretical framework helps explain how different motivational orientations might interact with self-efficacy beliefs to influence career intentions.

Understanding which self-efficacy dimensions best predict career intention is essential for improving teacher education practices and policies in China (Gong & Wang, 2023). This study clarifies the factors shaping self-efficacy, providing actionable findings for designing more effective interventions that enhance teacher preparation and reduce attrition rates. As China introduces new PE teacher development guidelines, empirical evidence linking self-efficacy and career commitment becomes crucial for policy formulation and assessment.

Therefore, the primary objectives of this study are: 1) to examine the psychometric properties of the adapted teachers' sense of efficacy scale (TSES) in the Chinese PE preservice teacher context; 2) to investigate the relationship between teacher self-efficacy dimensions (i.e., classroom management, instructional strategies, and student engagement) and career intention; 3) to explore the role of achievement goals in predicting career intention; and 4) to identify factors that contribute to self-efficacy development through qualitative interviews.

2 LITERATURE REVIEW

2.1 Chinese educational context and policy developments

China's educational system has undergone a rapid transformation in recent decades, with significant implications for teacher education (Zhang et al., 2025). The 2025 Ministry of Education guidelines represent the most comprehensive policy initiative to date, specifically targeting PE teacher development. These guidelines establish clear standards for teacher-student ratios (i.e., 5:1 for elementary, 6:1 for middle school, and 8:1 for high school), emphasise the recruitment of specialised teachers for three major ball sports (soccer, basketball, volleyball), and mandate the integration of digital technologies and artificial intelligence in PE instruction (Ministry of Education of China, 2025).

These policy developments create both opportunities and challenges for preservice teacher education. On one hand, increased attention and resources dedicated to PE teacher development may enhance program quality and professional status. On the other hand, the rapid pace of change and evolving expectations may create uncertainty and anxiety among those preparing to enter the profession (Wang et al., 2024). Understanding how these contextual factors interact with individual psychological processes like self-efficacy becomes increasingly important.

2.2 Career intention and teacher retention

Teacher attrition represents a significant challenge globally, with early-career teachers being particularly vulnerable to leaving the profession. Kelly et al. (2019) examined factors influencing early career teachers' intentions to leave in Australia, finding that job satisfaction and collegial relationships were strong predictors of retention. Caprara et al. (2006) found that TSE beliefs significantly predicted job satisfaction, which in turn influenced career persistence.

In the Chinese context, research on teacher career intention has focused primarily on general education teachers. Berg and Smith (2014) compared preservice teachers' efficacy beliefs and concerns in China, England, and New Zealand, identifying cultural differences in factors influencing career decisions. Although certain studies have begun to examine PE teachers specifically, gaps remain in understanding how self-efficacy relates to long-term career commitment in this specialised field.

2.3 Self-efficacy in physical teaching education

Research specifically examining self-efficacy among PE preservice teachers has grown in recent years. Gao et al. (2013) investigated the influence of student teaching on PE students' TSE and outcome expectancy beliefs, finding that practical experiences significantly enhanced efficacy beliefs. Liu et al. (2019) examined self-regulated learning strategies and achievement goals among preservice PE teachers, highlighting the complex interplay between motivational factors and teaching competence.

Besides, Gurvitch and Metzler (2009) investigated the effects of practicum experiences on preservice TSE in the United States, while Spittle et al. (2009) applied self-determination theory to understand motivation for becoming a PE teacher in Australia. These studies all suggested that self-efficacy development follows similar patterns across cultural contexts but is mediated by local educational policies and practices.

2.4 Teacher self-efficacy: Conceptual development and measurement

The concept of TSE has evolved significantly since Bandura's initial formulation. Tschannen-Moran et al. (1998) developed a

comprehensive model of teacher efficacy that integrates the sources of efficacy information with teaching tasks and contexts. The TSES scale has become one of the most widely used instruments for measuring teacher self-efficacy, assessing three dimensions: efficacy for instructional strategies, classroom management, and student engagement.

In the Chinese context, cross-cultural validation studies have examined the applicability of Western-developed instruments. Ruan et al. (2015) conducted a cross-cultural validation of the TSES in three Asian countries, including China, finding generally good psychometric properties but noting some cultural variations in factor structure. Cheung (2008) compared teacher efficacy between Hong Kong and Shanghai in-service teachers, identifying contextual factors that influence efficacy beliefs differently across Chinese educational systems.

2.5 Factors influencing self-efficacy development

Multiple factors contribute to the development of TSE during preservice preparation. Mastery experiences, particularly successful teaching performances during practicum placements, have been identified as the most powerful source of efficacy information (Gurvitch & Metzler, 2009). Vicarious experiences, such as observing mentor teachers or peers, also play important roles, especially when preservice teachers identify with the models they observe.

Furthermore, social persuasion, including feedback and encouragement from supervisors and peers, represents another critical influence. Qualitative studies have highlighted the importance of supportive relationships with mentor teachers and university supervisors in building confidence and competence (Moulding et al., 2014). Additionally, the structure and content of teacher education programs themselves shape self-efficacy development through course sequencing, field experience design, and assessment practices. Based on self-efficacy theory and previous research, the following hypotheses were tested:

H1: TSE for classroom management positively influences preservice teachers' intention to become PE teachers.

H2: TSE for instructional strategies positively influences preservice teachers' intention to become PE teachers.

H3: TSE for student engagement positively influences preservice teachers' intention to become PE teachers.

H4: Achievement goals, particularly self-approach goals, positively influences career intention.

3 METHODOLOGY

3.1 Research Design

This study employed a convergent mixed-methods design, collecting quantitative and qualitative data concurrently and integrating findings during interpretation. The quantitative component utilised a cross-sectional survey design to examine relationships between teacher self-efficacy, achievement goals, and career intention. The qualitative component employed semi-structured interviews to explore participants' experiences and perceptions related to self-efficacy development.

The mixed-methods approach was selected for several reasons. First, it allowed for methodological triangulation, strengthening the validity of findings through the convergence of different data sources. Second, it enabled a more comprehensive understanding of the research problem by capturing both statistical relationships and lived experiences. Third, it provided opportunities for elaboration, where qualitative findings could help explain and contextualise quantitative results.

3.2 Participants

The study included 176 preservice teachers enrolled in a PE major at a university in China. Participants ranged in age from 22 to 26 years (M = 24.19, SD = 1.11), with 97 males (55.1%) and 79 females (44.9%). All participants were in their final year of study and had completed at least one student teaching placement. The sample represented diverse geographical backgrounds, with participants coming from urban (58%), suburban (25%), and rural (17%) areas.

For the qualitative component, a purposive sample of 14 participants was selected based on maximum variation sampling to capture diverse experiences and perspectives. Selection criteria included gender, geographical background, academic performance, and self-efficacy scores from the quantitative survey. This approach ensured that the interview sample represented the range of experiences within the larger participant group.

3.3 Measures

3.3.1 Teacher self-efficacy

TSE was measured using an adapted version of the TSES (Tschannen-Moran & Woolfolk, 2001). The original 24-item scale was translated into Chinese using back-translation procedures to ensure linguistic and conceptual equivalence. The scale assesses three dimensions: efficacy for instructional strategies, which measures beliefs about the ability to use effective instructional methods and adapt teaching to student needs; efficacy for classroom management, which measures beliefs about the ability to control disruptive behavior and maintain an orderly learning environment; and efficacy for student engagement, which measures beliefs about the ability to motivate students and promote their active participation. Participants responded using a 9-point Likert scale ranging from 1 (nothing) to 9 (a great deal). Internal consistency reliability coefficients for the subscales in this study were: instructional strategies ($\alpha = 0.90$), classroom management ($\alpha = 0.87$), and student engagement ($\alpha = 0.72$).

3.3.2 Achievement goals

Achievement goals were measured using the preservice teacher achievement goals for teaching scale, adapted from Elliot's (1999) achievement goal framework. The 18-item scale assesses six dimensions: self-approach goals, mastery-approach goals, performance-approach goals, self-avoidance goals, mastery-avoidance goals, and performance-avoidance goals. Each dimension consists of three items, measuring different aspects of achievement goals related to personal growth, mastery, performance, and avoidance in teaching. Responses were recorded on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale demonstrated adequate internal consistency, with coefficients ranging from 0.75 to 0.88 across subscales.

3.3.3 Career intention

Career intention was measured using a three-item scale developed specifically for this study. Items assessed participants' likelihood of pursuing PE teaching after graduation, their enthusiasm for teaching physical education, and their commitment to remaining in the profession long-term. Responses were recorded on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale showed good internal consistency ($\alpha = 0.85$).

3.3.4 Teaching behaviour observation

A subset of 14 participants was observed during student teaching placements using a structured observation protocol. The protocol assessed teaching behaviours related to the three self-efficacy dimensions: classroom management strategies, instructional technique implementation, and student engagement facilitation. Observations were conducted by trained researchers and coded using standardised rating scales. Inter-rater reliability was established through training and periodic reliability checks ($k = 0.82$).

3.4 Data collection procedures

Quantitative data collection occurred during regular class sessions. Participants completed paper-and-pencil surveys that included demographic questions and the study measures. The survey administration took approximately 15 minutes, and participants were assured of confidentiality and voluntary participation. Data collection involved semi-structured interviews conducted individually with selected participants. Interviews lasted 60-90 minutes and were audio-recorded with participants' consent. Interview protocols focused on experiences during teacher preparation, factors influencing confidence development, perceptions of teaching competence, and future career plans. Teaching observations were conducted during participants' final student teaching placements. Each participant was observed for two full class periods, with observations scheduled to capture different instructional contexts and student groups.

4 DATA ANALYSIS

Quantitative data were analysed using SPSS 27.0 and AMOS 27.0. Preliminary analyses included descriptive statistics, reliability assessment, and examination of distributional assumptions. Confirmatory factor analysis was conducted to examine the factor structure of the adapted TSES. Structural equation modelling (SEM) was employed to test the hypothesised relationships between self-efficacy dimensions, achievement goals, and career intention.

Model fit was evaluated using multiple indices: χ^2/df ratio (< 5.0 acceptable), comparative fit index (CFI > 0.90), Tucker-Lewis index (TLI > 0.90), and root mean square error of approximation (RMSEA < 0.08). Multiple regression analysis was used to examine the relationship between self-efficacy dimensions and observed teaching behaviours. Control variables included gender, geographical background, and prior teaching experience.

Interview recordings were transcribed verbatim and analysed using thematic analysis following Braun and Clarke's (2006) six-phase approach. Analysis involved familiarisation with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. Trustworthiness was enhanced through member checking, peer debriefing, and maintaining an audit trail of analytical decisions. Observation data were analysed using content analysis, with behaviours coded according to predefined categories derived from the observation protocol. Frequency counts and descriptive statistics were calculated for each behaviour category.

Next, integration occurred at the interpretation stage, where quantitative and qualitative findings were compared, contrasted, and synthesised. Convergence and divergence between data types were examined, and qualitative findings were used to explain and contextualise quantitative results. This integrative approach provided a more comprehensive understanding of the research problem than either method alone could offer.

4.1 Descriptive Statistics

Descriptive statistics for all variables are presented in Table 1. TSE scores were generally high, with instructional strategies showing the highest mean ($M = 7.42$, $SD = 1.18$), followed by classroom management ($M = 7.18$, $SD = 1.31$), and student engagement ($M = 6.89$, $SD = 1.42$). Career intention scores were moderately high ($M = 5.76$, $SD = 1.23$), indicating generally positive attitudes toward entering the teaching profession.

Table 1. Descriptive statistics for study variables (*N* = 176)

Variable	Mean	SD	Minimum	Maximum	Skewness	Kurtosis
TSE-instructional strategies	7.42	1.18	3.25	9.00	-0.68	0.42
TSE-classroom management	7.18	1.31	2.75	9.00	-0.54	0.18
TSE-student engagement	6.89	1.42	2.50	9.00	-0.41	-0.15
Self-approach goals	5.92	1.08	2.33	7.00	-0.62	0.31
Mastery-approach goals	5.41	1.21	2.00	7.00	-0.38	-0.22
Performance-approach goals	4.88	1.34	1.67	7.00	-0.21	-0.45
Career intention	5.76	1.23	2.00	7.00	-0.47	0.12

4.2 Measurement model

Confirmatory factor analysis supported the three-factor structure of the adapted TSES. Model fit indices were acceptable: χ^2/df = 2.31, CFI = 0.93, TLI = 0.91, RMSEA = 0.07. All factor loadings were statistically significant ($p < .001$) and ranged from 0.56 to 0.89. The inter-factor correlations were moderate to strong: instructional strategies with classroom management ($r = 0.68$), instructional strategies with student engagement ($r = 0.61$), and classroom management with student engagement ($r = 0.55$).

4.3 Structural model

Structural equation modelling results supported all three hypotheses regarding the relationship between teacher self-efficacy dimensions and career intention. The results showed a good model fit: χ^2/df = 2.18, CFI = 0.94, TLI = 0.92, RMSEA = 0.06.

4.3.1 Teacher self-efficacy and career intention

As shown in **Figure 1**, all three self-efficacy dimensions significantly predicted career intention. Instructional strategies had a β value of 0.23, $p < 0.05$, explaining 5.29% of the variance. Classroom management had a β value of 0.11, $p < 0.05$, explaining 1.21% of the variance. Student engagement had a β value of 0.09, $p < 0.05$, explaining 0.8% of the variance.

The strongest predictor was efficacy for instructional strategies, suggesting that preservice teachers who feel confident in their ability to design and implement effective teaching methods are more likely to intend to enter the profession. The classroom management dimension showed a smaller but still significant effect, while student engagement had the weakest predictive power.

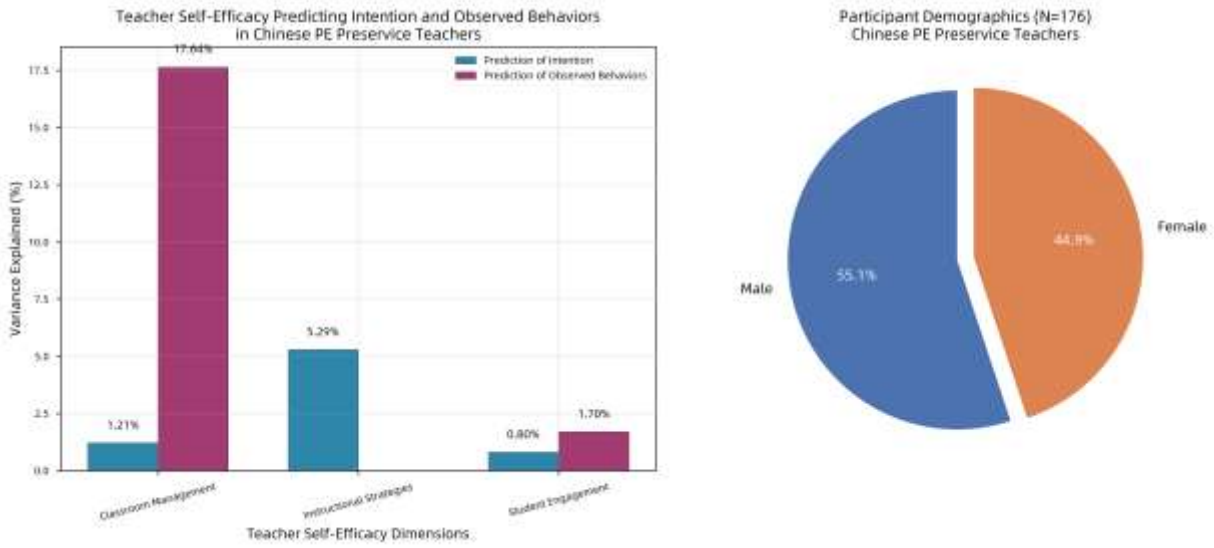

Figure 1. Teacher self-efficacy predicting intention and observed behaviours among Chinese PE preservice teachers

4.3.2 Achievement goals and career intention

Among the six achievement goal dimensions, only self-approach goals significantly predicted career intention (β = 0.44, $p < 0.05$), accounting for 19.36% of variance. This finding supports hypothesis H4 and suggests that preservice teachers who focus on

improving their personal teaching competence are more likely to intend to become PE teachers (See **Figure 2**).

Other achievement goal dimensions showed no significant relationships with career intention. Mastery-approach goals had a β value of 0.08, p = 0.24. Performance-approach goals had a β value of 0.05, p = 0.38. Self-avoidance goals had a β value of -0.07, p = 0.28. Mastery-avoidance goals had a β value of -0.04, p = 0.52. Performance-avoidance goals had a β value of -0.06, p = 0.34.

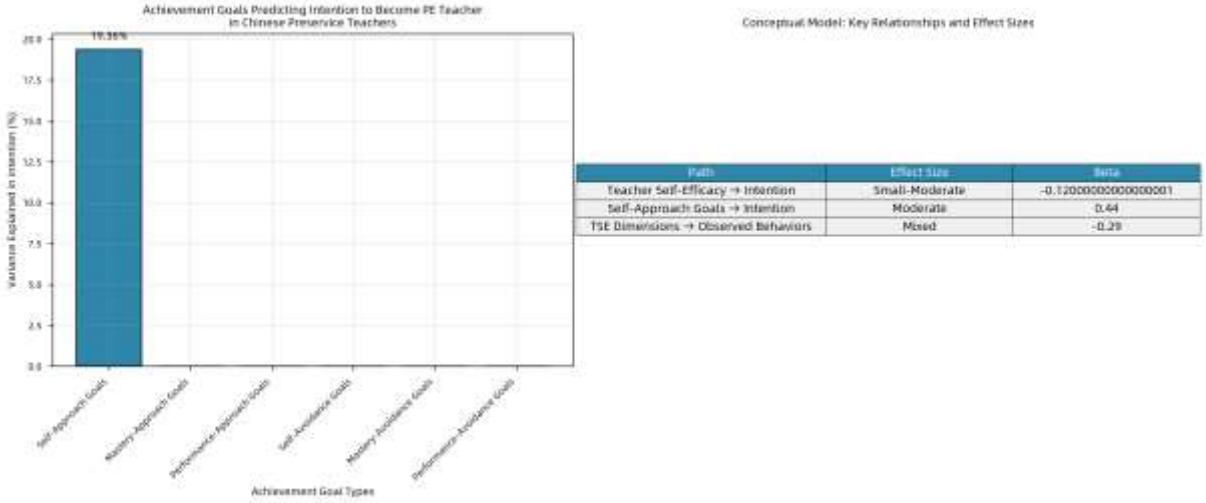

Figure 2. Achievement goals predicting intention to become PE teacher among Chinese preservice teachers

4.3.3 Self-efficacy and observed teaching behaviors

Multiple regression analysis revealed significant relationships between self-efficacy dimensions and observed teaching behaviours. Efficacy for classroom management significantly predicted observed classroom management behaviours (β = 0.42, $p < 0.05$), explaining 17.64% of variance. Efficacy for student engagement also predicted observed student engagement facilitation (β = 0.13, $p < 0.05$), though with a smaller effect size (1.7% variance explained). Interestingly, efficacy for instructional strategies did not significantly predict observed instructional technique implementation (β = 0.09, p = 0.18). This discrepancy suggests that beliefs about instructional competence may not always translate directly into observable teaching behaviours, possibly due to contextual constraints or the complex nature of instructional decision-making.

4.4 Qualitative findings: Factors influencing self-efficacy development

Thematic analysis of interview data identified eight key factors that contribute to self-efficacy development among Chinese PE preservice teachers. These factors, along with their importance ratings and frequency of mention, are presented in **Figure 3**.

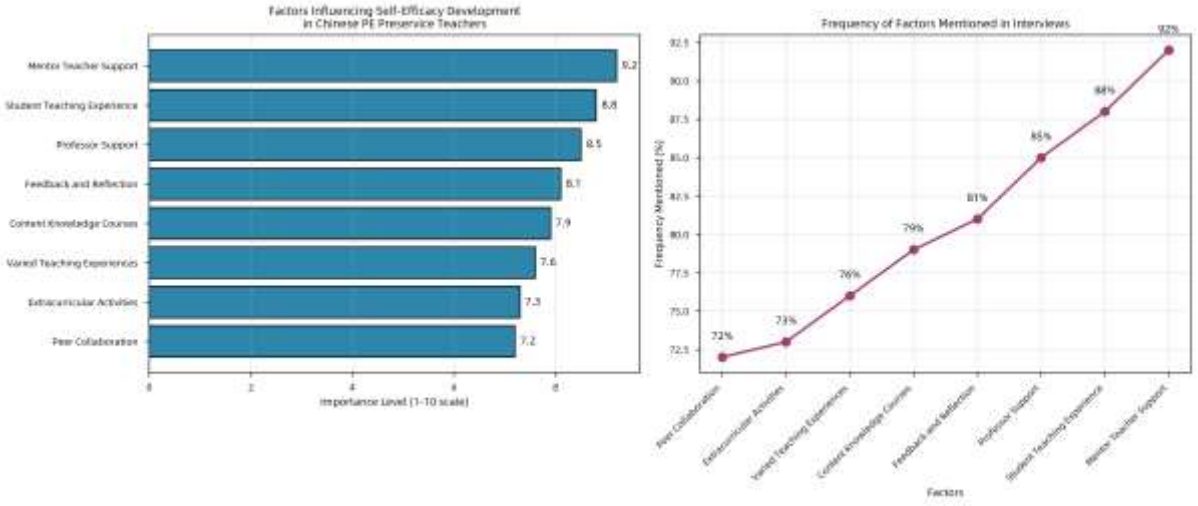

Figure 3. Qualitative findings: Factors influencing self-efficacy development among Chinese PE preservice teachers

4.4.1 Mentor teacher support

Participants consistently emphasised the critical role of mentor teachers during student teaching placements. As one participant explained: My mentor teacher didn't just tell me what to do—she showed me how to handle difficult situations, gave me specific feedback after each lesson, and gradually gave me more responsibility. By the end, I felt like I could actually manage a class on my own.

Mentor teachers provided several forms of support, including modelling, which involved demonstrating effective teaching practices and classroom management strategies; scaffolding, which gradually increased teaching responsibilities as confidence grew; feedback, which provided specific, constructive criticism focused on improvement; and emotional support, which offered encouragement during challenging moments.

4.4.2 Student teaching experience

Practical teaching experiences were universally recognised as the most powerful source of self-efficacy information. Participants described how actual classroom experiences transformed their understanding of teaching and their confidence in their abilities.

Key aspects of student teaching that enhanced self-efficacy included mastery experiences, which involved successfully implementing lesson plans and managing classroom activities; problem-solving, which involved addressing unexpected challenges and adapting to different student needs; skill development, which involved practising specific teaching techniques in authentic contexts; and relationship building, which involved establishing connections with students and understanding their perspectives.

4.4.3 Professor support

University professors played crucial roles in both academic preparation and professional development. Participants valued professors who connected theoretical knowledge to practical applications and provided ongoing guidance throughout the teacher education program.

Professor support took several forms, including academic guidance, which involved helping students understand educational theories and research; practical connections, which related course content to real teaching situations; career advice, which provided insights about the teaching profession and job opportunities; and research opportunities, which involved students in educational research projects.

4.4.4 Feedback and reflection

Structured opportunities for feedback and reflection emerged as essential components of self-efficacy development. Participants described how systematic reflection on teaching experiences, combined with constructive feedback from multiple sources, helped them identify strengths and areas for improvement.

Effective feedback and reflection practices included video analysis, which involved reviewing recordings of teaching performances with guidance; peer feedback, which involved receiving observations and suggestions from fellow preservice teachers; self-assessment, which helped in developing skills in evaluating one's own teaching; and action planning, which involved creating specific goals for professional growth.

4.4.5 Content knowledge courses

Specialised courses in physical education content areas provided foundational knowledge that supported teaching confidence. Participants emphasised the importance of both theoretical understanding and practical skills in specific sports and activities. Key content areas included sport-specific techniques, which involved mastery of skills in various physical activities; exercise science, which provided an understanding of physiology, biomechanics, and training principles; curriculum design, which involved knowledge of PE curriculum frameworks and standards; and safety and risk management, which focused on competence in preventing and responding to injuries.

4.4.6 Extracurricular activities

Involvement in coaching, sports clubs, and community programs provided additional opportunities to develop teaching-related skills and confidence. These experiences enabled preservice teachers to apply their knowledge in various contexts and establish relationships with diverse populations. Beneficial extracurricular experiences included coaching positions, where they led sports teams and worked with athletes; community programs, where they taught physical activities in non-school settings; leadership roles, where they organised sports events and recreational activities; and volunteer work, where they assisted with adaptive PE programs or special populations.

4.4.7 Varied teaching experiences

Exposure to diverse teaching contexts and student populations helped build adaptable teaching skills and confidence. Participants who had opportunities to teach different age groups, ability levels, and class sizes reported greater self-efficacy. Important variations included age range, with experience teaching elementary, middle, and high school students; ability levels, involving teaching students with diverse skill levels and special needs; class sizes, with experience managing both small groups and large classes; and school types, with experience in different educational settings such as urban, rural, private, and public schools.

4.4.8 Peer collaboration

Collaborative learning with fellow preservice teachers provided emotional support, shared problem-solving, and mutual encouragement. Participants described how working together on teaching challenges and sharing experiences helped build collective confidence. Forms of peer collaboration included lesson planning groups, where they collaborated on curriculum development; practice teaching sessions, where they observed and provided feedback to peers; study groups, where they prepared for courses and assessments together; and professional networks, where they built relationships for future collaboration.

4.5 Integration of quantitative and qualitative findings

The integration of quantitative and qualitative data revealed several important insights. First, the quantitative finding that instructional strategies' self-efficacy was the strongest predictor of career intention was explained by qualitative data highlighting the importance of specific teaching competencies. Participants who felt confident in their ability to design effective lessons and adapt instruction to student needs were more enthusiastic about entering the profession.

Second, the relatively weak relationship between student engagement self-efficacy and career intention may be explained by contextual factors identified in interviews. Many participants expressed concerns about large class sizes, limited resources, and administrative pressures that make student engagement challenging, potentially dampening enthusiasm for teaching despite confidence in engagement strategies.

Third, the strong predictive power of self-approach goals aligns with qualitative themes emphasising personal growth and competence development. Participants who focused on improving their own teaching skills rather than comparing themselves to others showed greater commitment to the profession.

5 DISCUSSION

5.1 Theoretical contributions

The findings of this study contribute to self-efficacy theory in several important ways. First, they extend Bandura's (1997) framework to the specific context of Chinese PE preservice teacher education, demonstrating that the basic principles of self-efficacy theory apply across cultural and disciplinary boundaries. The significant relationships between all three self-efficacy dimensions and career intention support the theoretical proposition that efficacy beliefs influence behavioural intentions and choices.

Second, the differential predictive power of the three self-efficacy dimensions suggests that not all aspects of teaching confidence are equally important for career decisions. The strong effect of instructional strategies' self-efficacy aligns with research emphasising the central role of pedagogical competence in teacher effectiveness (Tschannen-Moran & Woolfolk, 2001). The weaker effects of classroom management and student engagement may reflect contextual factors specific to Chinese PE teaching, such as large class sizes and resource limitations that make these aspects particularly challenging.

Third, the finding that self-approach goals strongly predict career intention contributes to achievement goal theory by highlighting the importance of personal competence development in professional commitment. This aligns with Elliot's (1999) conceptualisation of self-based goals as distinct from task-based and other-based goals, suggesting that preservice teachers' focus on personal improvement may be particularly motivating in the early stages of professional development.

5.2 Practical implications

The results offer several practical implications for PE teacher education programs in China and internationally. First, teacher education programs should prioritise the development of instructional strategies competence, as this dimension of self-efficacy shows the strongest relationship with career intention. This could involve enhanced methods courses, which provide more extensive and practical instruction in teaching methods specific to physical education; microteaching opportunities, which offer structured practice teaching with immediate feedback; lesson planning workshops, which focus on training in designing effective PE lessons; and technology integration, which provides training in using digital tools and AI applications in PE instruction.

Second, the importance of mentor teacher support suggests that careful selection and training of mentor teachers is crucial. Teacher education programs should establish clear criteria for selecting mentor teachers, provide mentor training through professional development, establish support structures by maintaining regular communication between university supervisors and mentor teachers, and recognise contributions by acknowledging and rewarding effective mentoring.

Last, the strong relationship between self-approach goals and career intention suggests that programs should foster a growth mindset and focus on personal improvement rather than comparative achievement. This could involve goal-setting activities, which provide structured opportunities for setting and monitoring personal teaching goals; reflective practice, which encourages regular reflection on teaching experiences and growth; portfolio development, which involves creating professional portfolios to document skill development; and individualised feedback, which offers tailored feedback focused on personal progress.

5.3 Limitations and future research directions

This study has several limitations that should be acknowledged. First, the sample was drawn from a single university, which may limit generalizability to other Chinese PE teacher education programs. Future research should include multiple institutions representing different regions and program types. Second, the cross-sectional design limits causal inferences about the relationships between self-efficacy, achievement goals, and career intention. Longitudinal studies tracking preservice teachers from entry into teacher education through early career stages would provide stronger evidence about how these factors interact over time. Third, the study focused on intention rather than actual career behaviour. Future research should examine whether self-efficacy and achievement goals predict actual entry into and persistence in the teaching profession. Fourth, the study did not examine potential moderating factors such as school context, administrative support, or community resources. Future research should explore how

these contextual variables influence the relationship between self-efficacy and career outcomes. In addition, the measurement of teaching behaviours was limited to a small subset of participants. More comprehensive observation studies with larger samples would provide stronger evidence about the relationship between self-efficacy beliefs and teaching performance.

6 CONCLUSION

This study provides empirical evidence that TSE significantly predicts career intention among Chinese PE preservice teachers. The findings support Bandura's self-efficacy theory while highlighting the particular importance of instructional strategies competence in career decisions. The strong relationship between self-approach goals and career intention further emphasises the motivational power of personal growth orientations in teacher development.

The qualitative findings offer rich insights into the factors that contribute to self-efficacy development, with mentor teacher support, practical teaching experiences, and professor guidance emerging as particularly influential. These findings have important implications for teacher education practice, suggesting that programs should prioritise instructional competence development, strengthen mentoring systems, and foster growth-focused motivational orientations.

As China implements its ambitious PE teacher development policies, this research provides valuable evidence about the psychological factors that influence teacher recruitment and retention. By understanding and addressing these factors, teacher education programs and policymakers can work together to build a stronger, more committed PE teaching workforce capable of meeting China's educational goals and promoting youth health and wellness.

The study also contributes to international understanding of teacher self-efficacy, demonstrating both universal patterns and context-specific variations in how efficacy beliefs develop and function. Future research should continue to explore these complex relationships, with particular attention to longitudinal designs, diverse cultural contexts, and the intersection of individual psychological processes with systemic educational factors.

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