

The Effect of Classroom Management Efficacy on Work Engagement in Chinese-Foreign Cooperative Major in Hebei, China

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Abstract

Chinese-foreign cooperation majors have developed rapidly, thus, having high-caliber staff members is now essential to the success of these programs. It is particularly essential to investigate the elements that affect instructors' involvement in these types of programs. The current research examines how teachers in Chinese-foreign cooperative majors relate to their classroom management efficacy, professional identities and work engagement. 550 teachers from Chinese-foreign cooperative majors at colleges in China's Hebei Province were selected using a convenience selection technique. Structural equation modelling (SEM) was implemented for analysis and validation. The outcomes demonstrate that professional identity and job engagement are positively impacted by classroom management efficacy. Additionally, the relationship between job engagement and classroom management efficacy is mediated by professional identity.

Keywords: Chinese-foreign cooperation majors, classroom management efficacy, professional identity, work engagement

1. Introduction

Teachers serve as both the cornerstone and the educational system main driving force. The involvement of faculty members in their jobs is essential to the accomplishment of any educational objective (Wang, 2024). The psychological states that instructors exhibit in the course of their everyday job, such as liveliness, devotion, and concentration, are referred to as work engagement. It's role is crucial in reviving the teaching profession and deciding whether educational improvements are successful or not (Wongmahesak et al., 2024). Therefore, one of the biggest challenges facing Chinese higher education institutions is increasing teachers' work involvement (Van-der et al., 2015).

Universities are finding that internationalizing education is an advantageous approach to deal with the changing landscape of higher education brought about by globalization (Mente, 2022). According to Huang et al. (2019), China has been a strong advocate for international cooperation and exchange recently, and as a key form of cross-border educational cooperation, cooperative programs are essential for developing Comprehensive talents with various abilities and qualities, adapting to international competition and collaboration. China's Ministry of Education (2024) points out that Sino-foreign cooperative majors are cooperation between Chinese educational institutions and foreign educational institutions in China in accordance with the law to organize educational teaching majors with Chinese citizens as the primary enrollment target. The development vision of China's education modernization is depicted in China's Education Modernization 2035, which elevates the running of Chinese-foreign cooperative majors to the top-level design of China's education modernization construction, and the running of Chinese-foreign cooperative majors has become an essential part of the advancement of China's education modernization construction (China State Council, 2019). Despite the Chinese Ministry of Education's significant focus on the growth of Chinese-foreign cooperative majors, these programs' unique requirements put more requirements on the faculty members. Teachers in Chinese-foreign cooperative majors are therefore required to devote more time and energy, which results in a gap between the incentives and the efforts exerted, which lowers teachers' work engagement

(Shibin et al., 2024).

Herzberg (1959) proposed the two-factor theory, which identifies two factors that drive employees' work engagement: hygiene factors and motivators. Motivators are aspects that make people happy at work and give them hope for their future careers. However, hygiene factors prevent job dissatisfaction and play a significant role in pacifying people, including wage levels, working conditions, benefits, and security (Alshmemri et al., 2017). Although maintaining hygiene elements at work decreases complaints and discontent in the workplace; it does not always inspire the staff members. Focusing on motivators including a sense of accomplishment, recognition, accountability, and personal development is crucial for genuinely engaging people. Given the nature of university faculty members' jobs, it is possible to improve their work engagement by utilizing both motivators and hygiene elements.

Schaufeli (2017) described work engagement as a positive attitude toward work-related topics, which leads to a favorable experience that reflects a person's high degree of passion and concentration at work. Enhancing the motivating elements of teachers' work might foster their passion and increase their level of engagement at work (Su & Wang, 2023). A dedicated educator will constantly try to prove their worth in the classroom (Golzar, 2020). As a hygiene element, classroom management may satisfy instructors' material demands and avoid discontent (Sieberer-Nagler, 2025). If students demonstrate proactive excitement, instructors may regulate the lesson's pace, take on the role of emotional leaders in the classroom, stimulate the environment, and encourage communication between themselves and their pupils (Alshuraiaan, 2023). As a result, instructors may become more motivated, perceive the importance of their employment, and be more engaged in their work (Su & Wang, 2023).

Teachers' professional identities serve as the psychological cornerstone of their career growth and are necessary for their involvement at work (Wu et al., 2024). Identifying the content, discipline, and climate of the classroom as part of the teacher's classroom management program and appreciating and supporting their efforts may strengthen teachers' professional identities, which will increase their job engagement (Masnan et al., 2021). Teachers' sense of accomplishment rises and their professional identity is strengthened when they receive favorable feedback from students during classroom management. They will thus probably become more passionate about their work and see teaching as their duty and purpose (Fathi et al., 2023).

Tianming and Volodymyr (2020) stated that communication problems between professors and students, including a lack of contact, emotional detachment, and passive communication, are frequently caused by the comparatively low quality of student intake in Chinese-foreign cooperative programs. Teachers' involvement in such programs is impacted by these issues either directly or indirectly (Sudarmayanti, 2015). Xiao (2021) discovered in her study that when teachers' attempts at classroom management fail, they may turn to objectivism, accommodating students' passive learning methods and taking a pessimistic stance, which causes them to withdraw into their comfort zones and lower their level of involvement at work. Huang et al. (2023) further highlighted that the foundation of Chinese-foreign collaborative programs is unquestionably an exceptional teaching workforce. Promoting teachers' job participation in classroom management is the only way to assure the calibre of Sino-foreign cooperative education, as teachers are the ones who carry out classroom management and create these programs. Additionally, this is a crucial course for these programs' future growth.

Thus, this research investigates the relationship among instructors' classroom management efficacy, professional identity, and job engagement using Herzberg's two-factor theory. The results and suggestions of this study, which focuses on teachers in Chinese-foreign cooperative majors at Chinese universities, will serve as a guide for the creation of classroom management techniques and tactics to improve teachers' work engagement in these programs.

2. Literature Review

Zhang et al. (2023) also pointed out that positive or negative emotions generated in teachers' work can predict the level of work engagement. Thus, it can be seen that a positive teacher-student relationship in classroom management and good immediate feedback from students can influence work engagement (Aldrup et al., 2018). Irshad et al. (2024) study also shows that when students respond with gratitude, or there is a good classroom atmosphere in the process of classroom management, the teacher's efforts are rewarded, and a sense of work accomplishment is generated, which can continuously improve work engagement. When students are inattentive and disrespectful, the teacher's effort is not rewarded, and if this state becomes a long-term situation where the teacher continuously gives more than he receives, it will eventually lead to a gradual decrease in work engagement. Therefore, this research analyzes the relationship between classroom management efficacy, professional identity, and work engagement, and considering the attributes of Chinese-foreign cooperative majors, this research proposes the following hypothesis H1-H4.

H1: Classroom management efficacy among teachers in Chinese-foreign cooperative majors has a favourable effect on their work engagement.

Wang and Pan (2013) believe that interactions between people and their workplaces are what lead to work engagement. Schools are the teachers' workplace, students are the teaching subjects, and teaching is the primary role of teachers (Lee, 2019). University teachers' job engagement might be rapidly increased in a supportive educational setting and environment. Teachers and students engage in emotional interactions during the teaching process. Teachers feel more at ease, content, and accomplished when students give them positive feedback during classroom management, which increases their level of involvement at work (Marder et al., 2023; Kun & Gadanecz, 2022). Bao et al. (2023) note that Chinese-foreign cooperative majors are different from other regular programs in that communication hurdles between professors and students during classroom management are frequently caused by factors like the caliber of student enrollment and course learning objectives. As a result, teachers' sense of success declines, their classroom management skills deteriorate, and their level of engagement at work declines (Bonna, 2023).

H2: Classroom management efficacy among teachers in Chinese-foreign cooperative majors has a positive impact on their professional identity

The classroom is a complex system composed of teachers, students, and various effective classroom environments. The aims of classroom management are accomplished through the interaction of these components (Steins et L., 2015). Based on their teaching cognition, teachers gain acknowledgment and acceptance for their instruction throughout the classroom management process, which they incorporate into their own teaching value system. This process is known as teacher identity (Chen et al., 2022). One of the most significant elements affecting how teachers' professional identities emerge and evolve is how their students think of them (Beauchamp & Thomas, 2009). Bei (2019) state that the quality of students enrolled in Chinese-foreign cooperative majors is comparatively low, and their basic knowledge is worse than that of students in regular programs. During instruction, this leads to serious communication problems between teachers and students. Consequently, the classroom outcomes often fail to meet the teachers' pre-set goals. Teachers may thus lack the sense of accomplishment that comes with effective classroom management, which might cause them to doubt and get confused about their line of work and gradually doubt their professional identity (Zhao, 2022).

H3: Teachers' professional identity in Chinese-foreign cooperative majors has a favourable effect on their work engagement.

Schaufeli (2013) states that work engagement is a proactive interaction between the individual and the environment. The sense of identification that individuals develop within the environment leads to greater work engagement. In addition to influencing how teachers use resources to overcome their own obstacles, teachers' professional identities have likewise an effect on their motivation and engagement at work (Fathi et al., 2023). Teachers with an intense awareness of professional identity are those who consciously dedicate themselves to the educational cause by accepting and loving their work, believing that teaching is worthwhile and meaningful, having a strong sense of career commitment, being able to view challenges objectively, and enjoying the pleasures that come with their job (Han & Wang, 2021). Xuxun and Tham (2024) points out that a strong teaching workforce is fundamental to the success of Chinese-foreign cooperative majors and is an essential force in promoting the quality of these programs. Agyapong et al. (2022) observes that a significant obstacle impeding the growth of Chinese-foreign cooperative majors is low teacher identity. Due to the unique characteristics of these programs, instructors' job requirements and content differ from those of ordinary programs. As a consequence, teachers frequently put in more effort than they receive, which can diminish their sense of professional identity and have a detrimental effect on their enthusiasm for their work (Frenzel et al., 2021).

H4: Teachers' professional identity in Chinese-foreign cooperative majors influences the association between classroom management efficacy and work engagement.

Herzberg's (1959) two-factor theory suggests that only employees who are satisfied with both hygiene and motivator factors will experience increased work engagement. Teachers may feel confused about their professional identities if they are unable to retain students' attention during classroom management. Due to dissatisfaction with both hygiene and motivator factors, their work engagement will gradually decrease (Yin et al., 2023). Teachers are the center of classroom management and have the primary responsibility to deal with the problematic behaviors of classroom management. A harmonious teacher-student relationship can produce a strong impetus to motivate teachers to strive to improve their professional identity so that they can positively complete the tasks of classroom management to achieve the purpose of education (Ruan, 2024). Burić and Moè (2020) pointed out in their study that professional

identity is directly related to the content of their work, and the enhancement of teachers' sense of identity is the only way to develop teachers' motivation. Zhao (2018) highlights that, compared to students in conventional programs, students in Chinese-foreign cooperative majors usually have lower academic and cultural backgrounds. Their differing learning styles and tendencies make teaching and managing students more difficult for teachers. Additionally, teachers must exert more effort when dealing with foreign textbooks in Chinese-foreign cooperative majors than when in normal programs. Teachers in Chinese-foreign cooperative programs gradually lose interest in their jobs when their efforts and teaching results are not appreciated by students, which weakens their feeling of accomplishment and professional identity, also shows that when students respond with gratitude or there is a good classroom atmosphere in the process of classroom management, the teacher's efforts are rewarded and a sense of work accomplishment is generated, which can continuously improve work engagement (Padmanabhanunni & Pretorius, 2023).

3. Research Methods

3.1 Research Framework

This study is based on Herzberg's two-factor theory and investigates how instructors' professional identities mediate the association between the efficacy of classroom management and work engagement among Chinese-foreign cooperative majors. The framework of this research is demonstrated in Figure 1.

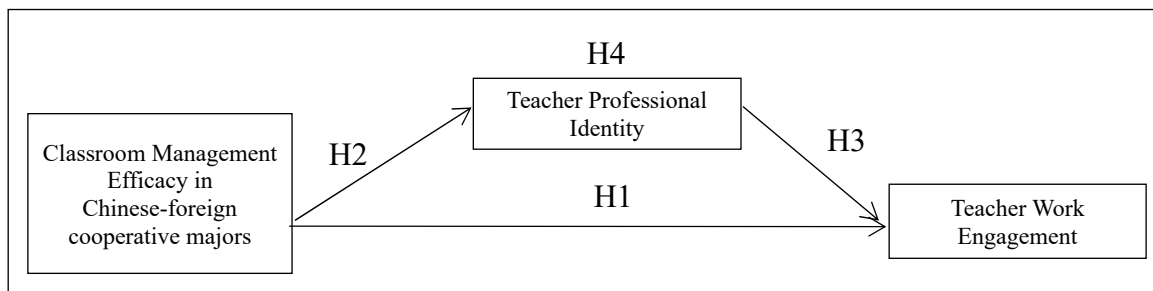


Figure 1. Research Framework

Description: Framework of classroom management and work engagement in a Chinese-Foreign program.

3.2 Research Sample

As a major trend in the internationalization of higher education, Chinese-foreign cooperative majors are widespread in Hebei Province, which currently hosts 7 Sino-foreign cooperative institutions, with 129 Chinese-foreign cooperative majors at the junior college stage and higher. The number of students enrolled in Chinese-foreign cooperative majors in the province is approximately 15,000, with 83 partner institutions. Hebei ranks the 5th-highest number of Sino-foreign cooperative institutions in China (Sino-Foreign Cooperative Program Supervision Platform of the Ministry of Education of China, 2024). Therefore, this study focuses on teachers in Chinese-foreign cooperative majors in Hebei.

Regionally speaking, most of Hebei's Chinese-foreign cooperative majors are found in cities like Shijiazhuang, Baoding, Langfang, and Tangshan. There is an uneven distribution of these programs around the province. Engineering, management, the arts, economics, and science are the five main academic subjects that Chinese-foreign cooperative majors in Hebei Province focus on (Zhou & Xie, 2012). Chinese-foreign cooperative majors in the province can be categorized into undergraduate, graduate, master's, and doctorate levels (Yan et al., 2018).

Based on the distribution of Chinese-foreign cooperative majors, their educational levels, and the characteristics of program offerings in Hebei, and considering the varying degrees of development of Chinese-foreign cooperative majors in different universities, teachers from five institutions in Hebei Province who had more than five years of experience teaching Chinese-foreign cooperative majors were selected for this study using convenience sampling. 110 questionnaires were distributed to each university, and 367 female teachers and 146 male teachers were eventually returned, 513 authentic surveys with an effective response rate of 93.272% were returned while incorrect and invalid responses were eliminated. 367 were female teachers and 146 were male teachers.

3.3 Research Instruments

This study utilized three measurement tools: the Classroom Management Efficacy Scale, the Teacher Work Engagement Scale, and the Teacher Professional Identity Scale. Reliability analysis and Confirmatory Factor Analysis (CFA) were applied on the returned questionnaires. Awang (2012) points out that reliability is the degree to which the measurement model reflects the expected latent constructs, with a C.R. value more than 0.7 denoting strong internal consistency. Furthermore, according to Awang (2012), the Average Variance Extracted (AVE) can be utilized to evaluate the validity of each construct; each construct must have an AVE > 0.5.

In accordance with Hair et al. (1998), the model fit is assessed based on three aspects: parsimony fit, incremental fit, and absolute fit. Hair et al. (2009) state that the χ^2/df ratio must be less than 3.00, and the Parsimonious Normed Fit Index (PNFI) and Parsimonious Goodness of Fit Index (PGFI) values must be less than 0.500 to meet the standard. Additionally, Hu and Bentler (1998) propose that in model fit indices, Standardized Root Mean Square Residual (SRMR) should be less than 0.050, Root Mean Square Error of Approximation (RMSEA) should be less than 0.080, and values for Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Non-Normed Fit Index (IFI), and Comparative Fit Index (CFI) should be greater than 0.900 to meet the standard.

3.3.1 Classroom Management Efficacy Scale

The one employed in this research is based on the scale created by Main and Hammond (2008). It includes 14 items and utilizes a 5-point Likert scale. Higher efficacy in classroom management is indicated by higher scores. The scale in this study has an overall Cronbach's Alpha coefficient of 0.949, which is higher than 0.70 and suggests good reliability.

The observed variables of the Classroom Management Efficacy Scale have standardized factor loadings that range from 0.656 to 0.833, all of which are greater than the standard value of 0.500. The composite reliability (C.R.) for the item combinations is 0.949, which is greater than the standard threshold of 0.7. The Average Variance Extracted (AVE) is 0.573, which exceeds the standard value of 0.500. The χ^2/df ratio is 2.808, which is less than the standard value of 3.0, and the chi-square test yields a p -value of <0.001, denoting statistical significance. The RMR is 0.022, and the SRMR is 0.027, both of which are below the standard value of 0.080. The fit indices for GFI, AGFI, NFI, TL1, NNFI, and CFI are 0.942, 0.921, 0.956, 0.966, 0.966, and 0.971, respectively, all exceeding the standard threshold of 0.900. The incremental fit indices, PNFI and PGFI, are 0.809 and 0.822, respectively, both exceeding the standard value of 0.500. Thus, the indicators of the Classroom Management Efficacy Scale demonstrate both composite reliability and convergent validity, meeting the fit standards.

3.3.2 Teacher Professional Identity Scale

The one used in this study was developed by Wei et al. (2017). This scale has 18 items and is divided into 4 aspects: role values, professional behavioral tendencies, professional values, and professional belonging. It uses a 5-point Likert scale, with higher scores implying a greater level of teacher professional identity. The overall Cronbach's Alpha coefficient for the scale is 0.918, and the Cronbach's Alpha coefficients for the four components—role values, professional behavioral tendencies, professional values, and professional belonging—are 0.904, 0.862, 0.820, and 0.860, respectively, all of which are higher than the standard value of 0.70, signifying good reliability.

The standardized factor loadings for the Teacher Professional Identity Scale range from 0.682 to 0.872, all exceeding the standard value of 0.500. The Average Variance Extracted (AVE) for the four dimensions—role values, professional behavioral tendencies, professional values, and professional belonging—are 0.613, 0.559, 0.534, and 0.674, respectively, all exceeding the standard value of 0.500. The χ^2/df ratio is 1.875, which is less than the standard value of 3.0, and the chi-square test yields a p -value of <0.001, denoting statistical significance. The RMR is 0.034, and the SRMR is 0.028, both of which are below the standard value of 0.080. The fit indices for GFI, AGFI, NFI, TL1, NNFI, and CFI are 0.950, 0.933, 0.953, 0.973, 0.973, and 0.977, respectively, all exceeding the standard threshold of 0.900. The incremental fit indices, PNFI and PGFI, are 0.803 and 0.824, respectively, both exceeding the standard value of 0.500. Thus, the indicators of the Teacher Professional Identity Scale demonstrate both composite reliability and convergent validity, meeting the fit standards.

3.3.3 Teacher Work Engagement Scale

The one used in this study was designed by Schaufeli et al. (2002). The scale has 9 items across three aspects: vigor, dedication, and absorption. It employs a 5-point Likert scale, with higher scores implying a higher level of work engagement. The overall Cronbach's Alpha coefficient for the scale is 0.863, and the Cronbach's Alpha coefficients for the three dimensions—vigor, dedication, and absorption—are 0.880, 0.833, and 0.805, respectively, all exceeding

the standard value of 0.70, demonstrating good reliability.

The standardized factor loadings for the Teacher Work Engagement Scale range from 0.718 to 0.872, all exceeding the standard value of 0.500. The Average Variance Extracted (AVE) for the three components—vigor, dedication, and absorption—are 0.712, 0.627, and 0.582, respectively, all exceeding the standard value of 0.500. The χ^2/df ratio is 1.407, which is less than the standard value of 3.0, and the chi-square test yields a p -value of <0.001 , implying statistical significance. The RMR is 0.023, and the SRMR is 0.020, both of which are below the standard value of 0.080. The fit indices for GFI, AGFI, NFI, TL1, NNFI, and CFI are 0.986, 0.973, 0.985, 0.993, 0.993, and 0.996, respectively, all exceeding the standard threshold of 0.900. The incremental fit indices, PNFI and PGFI, are 0.657 and 0.664, respectively, both exceeding the standard value of 0.500. Consequently, the indicators of the Teacher Work Engagement Scale demonstrate both composite reliability and convergent validity, meeting the fit standards.

4. Research Results

4.1 Common Method Bias Test

Before data analysis, the possible problem of common technique bias in the measurements was inspected by Harman's Single-Factor Test. Table 1 displays the findings. An unrotated principal component factor analysis was applied on the items of all variables, which produced eight factors with eigenvalues higher than 1. The first factor explained 31.438% of the variance. It may be inferred that common method variance is not a significant issue in this study based on the criterion that the first component should account for less than 50% of the variation when extracting numerous factors. Therefore, the data obtained can be further analyzed.

Table 1. Common Method Bias Test

Factor	Eigenvalue (≥ 1)	Variance Explained (%)	Cumulative Total Variance Explained (%)
1	12.890	31.438	31.438
2	5.529	13.486	44.924
3	2.539	6.193	51.117
4	2.001	4.879	55.997
5	1.460	3.561	59.558
6	1.243	3.032	62.590
7	1.093	2.667	65.257
8	1.049	2.560	67.816
Kaiser-Meyer-Olkin			.944
Bartlett's Test of Sphericity			12824.590
df			820
Significance			.000

4.2 Correlation Analysis

A correlation analysis was conducted between the Classroom Management Efficacy Scale, Teacher Professional Identity Scale, and Teacher Work Engagement Scale. Table 2 displays the findings. The correlation coefficient between the Classroom Management Efficacy Scale and the Teacher Professional Identity Scale is 0.314, while the correlation coefficient between the Classroom Management Efficacy Scale and the Teacher Work Engagement Scale is 0.497. The correlation coefficient between the Teacher Professional Identity Scale and the Teacher Work Engagement Scale is 0.540. Wu (2010) pointed out that correlation analysis reflects the linear association between variables. The higher the correlation coefficient, the stronger the linear association. If the correlation coefficient does not exceed 0.8, it denotes that there is no major multicollinearity issue between the variables.

Table 2. Correlation Analysis

	Classroom Management Efficacy	Teacher Professional Identity	Teacher Work Engagement
Classroom Management Efficacy	1		
Teacher Professional Identity	0.314***	1	
Teacher Work Engagement	0.497***	0.540***	1

Note: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$.

4.3 Structural Equation Model Analysis

The impact of classroom management efficacy on teacher work engagement in Chinese-foreign cooperative education programs was investigated in this study using structural equation modeling (SEM), with teacher professional identity acting as a mediator. The Bootstrap method was employed for hypothesis testing.

Bagozzi and Yi (1988) argue that measurement models must be assessed before performing SEM. The overall model fit indices for the SEM in this study are as follows: $\chi^2/df = 2.155$, which is below the threshold value of 3, and the chi-square test ($p < 0.001$) was significant. RMR = 0.029 and SRMR = 0.034, both of which are below the standard value of 0.080. Additionally, GFI, AGFI, NFI, TL1, IFI, and CFI values were 0.931, 0.915, 0.936, 0.960, 0.965, and 0.965, respectively, all of which are above or near the threshold value of 0.900. The incremental fit indices PNFI and PGFI were 0.829 and 0.854, both above the minimum threshold of 0.500. These findings show that the model of the is a good fit (Wheaton, 1987).

Using bias-corrected methods, the Bootstrap sampling approach is utilized to evaluate the model's total, direct, and indirect effects. If the indirect effect's confidence interval does not include zero, it signifies the presence of a mediation effect. If the direct effect's confidence interval does not include zero, it suggests partial mediation; if it includes zero, it indicates full mediation.

From Table 3, we can observe that the direct path coefficient of classroom management efficacy to teacher work engagement is significant ($\beta = 0.394$, $p < 0.001$). This indicates a positive effect of classroom management efficacy on teacher work engagement, supporting H1. Next, after incorporating the mediating variable of teacher professional identity, the results show that the direct path coefficient from classroom management efficacy to teacher professional identity is significant ($\beta = 0.374$, $p < 0.001$), indicating that classroom management efficacy positively affects teacher professional identity, thus supporting H2. Additionally, the direct path coefficient from teacher professional identity to teacher work engagement is significant ($\beta = 0.595$, $p < 0.001$), demonstrating that teacher professional identity positively affects teacher work engagement, supporting H3.

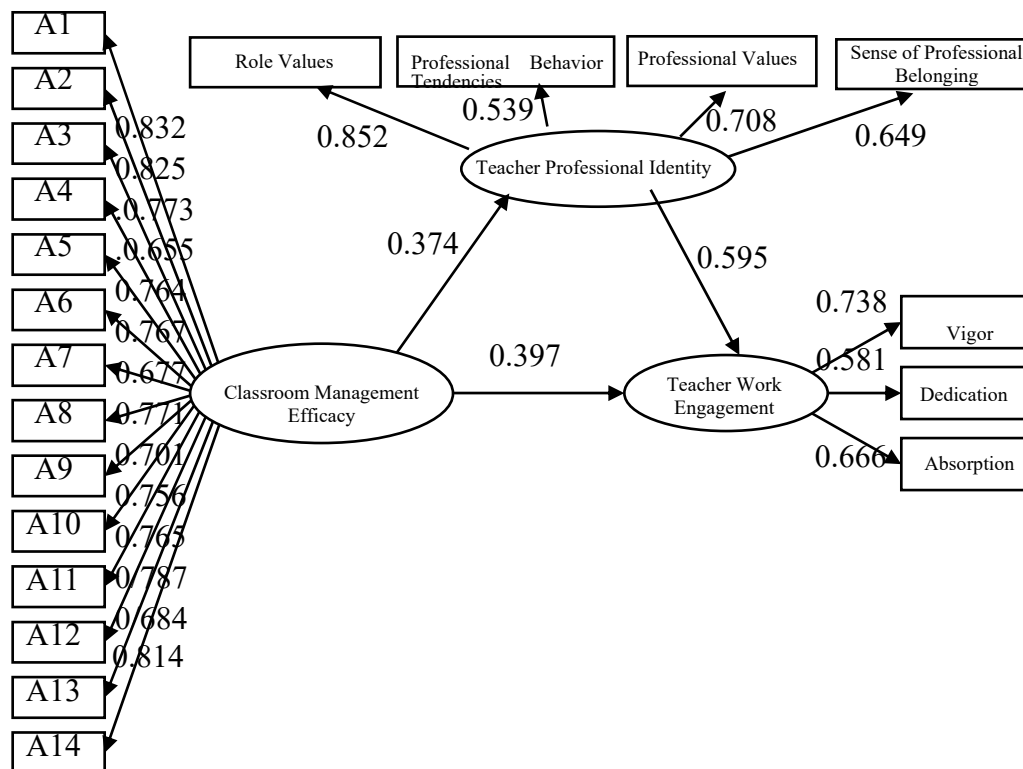
To test the mediation effect of teacher professional identity, this study applied the Bootstrap sampling method for mediation testing. After 2,000 Bootstrap samples, the indirect effect was found to be 0.324, with a confidence interval ranging from 0.138 to 0.324, which does not include zero, indicating that the mediation effect is significant. For the direct effect, the impact of classroom management efficacy on teacher work engagement had an effect size of 0.397, with a confidence interval from 0.277 to 0.505, which does not include zero. The path from classroom management efficacy to teacher professional identity had an effect size of 0.374, with a confidence interval from 0.263 to 0.468, which also does not include zero. The effect size of teacher professional identity on teacher work engagement was 0.595, with a confidence interval from 0.461 to 0.732, again not including zero. These results indicate that a teacher's professional identity plays a significant mediating role. The total effect size is 0.619, with a confidence interval from 0.536 to 0.692, which does not include zero, supporting the presence of partial mediation. The relative effect of teacher professional identity's mediation in the total effect is 35.980% (mediating effect / total effect). Therefore, H4 is supported, confirming that teacher professional identity has a partial mediating effect between classroom management efficacy and teacher work engagement.

Table 3. Mediation Model Path Impact Results Analysis

Hypothesis Path			Estimate	<i>p</i>	Bootstrap 95% Confidence Interval	
					Lower Limit	Upper Limit
Direct Effects						
Classroom Management Efficacy	→	Teacher Work Engagement	0.397	.000	0.277	0.505
Classroom Management Efficacy	→	Teacher Professional Identity	0.374	.000	0.263	0.468
Teacher Professional Identity	→	Teacher Work Engagement	0.595	.000	0.461	0.732
Indirect Effects						
Classroom Management Efficacy → Teacher Professional Identity → Teacher Work Engagement			0.324	.000	0.138	0.324
Total Effects						
Classroom Management Efficacy	→	Teacher Work Engagement	0.619	.000	0.536	0.692

Note: *p* indicates *p-value*; all were less than 0.05.

Based on the above analysis, teacher professional identity in Chinese-foreign cooperative majors functions as a mediator between classroom management efficacy and teacher work engagement. Therefore, the mediation model of teacher professional identity in this study is depicted in Figure 2.

**Figure 2.** Mediation Model

Description: These figures are the path coefficients of direct and indirect effects.

5. Discussion and Recommendations

Based on Herzberg's Two-Factor Theory, this study builds a research model using literature analysis to investigate how classroom management efficacy impacts work engagement in Chinese-foreign cooperative majors, with teacher professional identity acting as a mediating variable.

The findings of the research show that instructors in Sino-foreign cooperative programs who are effective at managing their classrooms have higher levels of work engagement. Classroom management in Chinese-foreign cooperative majors aims to cultivate versatile and internationally-minded talents (Trumbull et al., 2020), which requires teachers to carefully design their classroom management strategies. Teachers will have a feeling of professional accomplishment in the classroom management process if they can get prompt feedback from students on the direct impact of their instruction and receive adequate and timely appreciation for their efforts (Kun & Gadanez, 2022). This can increase instructors' work engagement by encouraging them to constantly consider ways to improve the way they create instructional materials and streamline the classroom management procedure (Zhang et al., 2024). Effective classroom management requires positive interactions between teachers and students (Lazarides and Richardson, 2020)). Students' learning environments improve, and they are more inclined to participate fully in class interactions when teachers provide an inclusive and positive learning environment and can offer prompt and efficient assistance to students (Liu & Zhou, 2024). Teachers may then enjoy the satisfaction and sense of accomplishment that come with teaching, which increases their emotional involvement in their job.

The study's finding also indicated that Sino-foreign cooperation program instructors' professional identities are positively impacted by their ability to effectively manage the classroom. Teachers who are more effective at managing the classroom also typically have more faith in their own teaching and classroom management skills (Taylor & Wendt, 2023). This confidence translates into a stronger sense of job identification (Alghamdi & Khadawardi, 2024). Strongly identified teachers are frequently enthusiastic and self-assured about their profession, which allows them to give their all to their teaching responsibilities (Wu et al., 2024). To boost instructors' dedication and involvement in the work in these programs, it is essential for Chinese-foreign cooperative majors to consistently improve their classroom management skills.

Additionally, the outcomes of the study demonstrate that instructors' job engagement is positively impacted by their sense of professional identity in Chinese-foreign cooperative programs. Chinese-foreign cooperative majors play a crucial function in bridging cultural divides, advancing internationalization in education, and supporting students' high-quality growth in the framework of globalized education. The successful execution of teaching tasks in these programs is greatly influenced by the professional identities of the instructors (Zhao, 2022). Professional identity has a substantial impact on teachers' job engagement, teaching effectiveness, and student development outcomes in addition to being linked to their own development and well-being (Sudibjo & Riantini, 2023). The only way to successfully encourage teachers' high degree of involvement in teaching is to strengthen their professional identities as Chinese-foreign cooperating majors.

In addition, this study reveals that among teachers pursuing Chinese-foreign cooperative programs, the link between job engagement and classroom management effectiveness is mediated by teachers' professional identities. Teachers can only have professional well-being, which fosters professional development when they have a good sense of who they are as professionals. In their workplace, teachers with high levels of self-efficacy are more inclined to participate actively and project a strong sense of professional identity (Wang, 2022). The underlying drive that drives instructors in Chinese-foreign cooperative programs to actively engage in their jobs is their professional identity. Effective teaching results and constructive classroom interactions boost teachers' self-esteem as knowledge builders and transmitters, which in turn strengthens their professional identities in the context of classroom management (Milatz et al., 2015). Teachers who have a strong sense of their professional identity are more inclined to like what they do for a living and lead their classrooms with more passion and positivity (Qardaku, 2019).

Therefore, if students in Chinese-foreign cooperative majors provide positive feedback in teachers' classroom management and there is an active interaction between teachers and students (Addimando, 2019), it can help establish harmonious teacher-student relationships, thereby enhancing teachers' sense of professional identity and leading to greater work engagement (Harrison et al., 2023). Tianming and Volodymyr (2020) state that Chinese-foreign cooperative majors sometimes pay three times as much in tuition as conventional programs. Due to the difficulty of recruiting students, many colleges decide to reduce the prerequisites for admission and accept students with less academic skills. These students typically lack strong learning motivation, have unclear learning goals, and find it difficult to absorb new knowledge (Lo et al., 2022). Consequently, they are less involved in classroom instruction, which causes teachers to question themselves. By establishing clear classroom management

standards and other procedures, making sure that classroom management runs smoothly, and eventually increasing teachers' classroom management efficacy, schools may improve the overall quality of their students.

In conclusion, Teachers in Chinese-foreign cooperative majors can improve their professional identity and job engagement by feeling more effective in managing the classroom. Teachers' classroom management effectiveness can further enhance their job engagement through professional identity, and teachers' professional identity can likewise increase their work engagement. Thus, schools should focus more on improving teachers' classroom management efficacy and professional identity to increase the job engagement of teachers in Chinese-foreign cooperative majors. The research findings suggest the following recommendations.

Chinese-foreign cooperative majors require highly qualified teachers since they incorporate cutting-edge educational philosophies and curriculums from both local and international settings. Some instructors now lack a strong feeling of connection with the program and have a limited grasp of it, which has an adverse effect on program growth and teaching quality. Teachers are the most impacted group in the Chinese-foreign cooperative majors because of the curriculum's peculiarities (Xuxun & Tham, 2024). Universities must actively develop appropriate guidelines based on the unique circumstances of their own Chinese-foreign cooperative majors to improve instructors' professional identities and increase their feeling of connection with these students (Zhang et al., 2024). Schools might, for instance, arrange specialized training to help instructors better grasp the educational philosophy, model, and benefits of Chinese-foreign cooperation majors, which will increase their appreciation of the program's worth. Additionally, this can help instructors become more skilled at managing the classroom so they can deal with a variety of problems in the classroom. Teachers' passion will increase and their sense of professional identity will be strengthened if a learning environment is created that is encouraging and helpful, where they feel valued and supported in their job.

Finally, by consistently learning new things and honing the techniques and abilities needed in the classroom, instructors in Chinese-foreign cooperative programs can improve their job engagement. For instance, through experience exchanges with peers from many disciplines, instructors participating in these programs might obtain alternate ideas and suggestions based on other people's experiences. This variety of input enables teachers to pinpoint their own teaching drawbacks, continuously improve their methods, and strengthen their capacity to handle classroom management concerns. Additionally, teachers may acquire outstanding teaching practices from their peers in other institutions' Chinese-foreign cooperative majors, which can further boost their interest and engagement at work.

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