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THE INFLUENCE OF TEACHER'S TRANSFORMATIONAL LEADERSHIP ON STUDENT ENGAGEMENT: UNVEILING THE MEDIATING ROLE OF SELF-EFFICACY IN CHINESE HIGHER VOCATIONAL EDUCATION

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ABSTRACT

This study examined the connection between transformational leadership by instructors and student engagement in Chinese higher vocational education, specifically examining the mediating function of student self-efficacy. Drawing on Bandura's social cognitive theory, a quantitative cross-sectional design was employed to collect data from 1,034 students at five different Chinese Higher Vocational Colleges. These findings indicate that transformational leadership positively affects student engagement and self-efficacy. Their sense of self-efficacy moderated the relationship between leadership and student involvement. This study adopted structural equation modeling, which confirms the proposed relationships' robustness. However, some limitations, such as the cultural context and limited representativeness, should be considered for future studies. Policymakers and practitioners in education can use these findings to inform efforts to enhance vocational education instruction and student achievements. Implications for practice include suggestions for bettering programs that support teacher leadership and for including self-efficacy tests in educational policies to increase student involvement. These findings have implications for policymakers and educational practitioners, particularly in designing teacher leadership training programs to improve student learning performance.

Keywords: Transformational Leadership, Teacher Leadership, Self-Efficacy, Student Engagement, Higher Vocational Education



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INTRODUCTION

Within the framework of globalization, the significance of teachers' transformational leadership is vital for improving classroom instruction and encouraging personal development (Nurabadi et al., 2021). Educational leadership theories highlight teachers' dual role: imparting knowledge and fostering pupils' potential. Given the difficulty of education, transformational leaders' contributions significantly influence educational leadership theory (Leithwood & Sun, 2012). This type of leadership also significantly impacts the increasing student engagement in higher vocational institutions (Jiabing, 2021; Zhao & Ko, 2020). Numerous studies have shown that student engagement positively affects instruction effectiveness and learning results (Kyriakidēs et al., 2013). Although some studies have examined how leadership influences educational outcomes in Western educational settings, there remains a significant difference in the effects of transformational leadership in Chinese colleges. A study of the effectiveness of transformational leadership in classroom settings is urgently needed because of the difficulties faced by Chinese higher vocational institutions, such as the lack of student engagement (Teuber et al., 2021). Therefore, it is necessary to investigate the impact of transformational leadership in an educational setting. The unique setting of China's colleges provides insights into the study of teacher leadership, where the educational system differs from that of Western nations with the student body reflecting that diversity. This study sought to fill this gap by investigating how student engagement is influenced by teachers' transformational leadership, specifically by examining the mediating role of students' self-efficacy.

This study draws on Bandura's social cognitive theory to develop a conceptual model emphasizing the triadic interactional straight form. This model explores how individual behavior, cognition, and the environment interact (Bandura, 1986). In an educational environment, teachers' supervision style has a significant impact on the development of student self-efficacy. Teachers can use transformational leadership strategies like offering personalized support and inspiring students' interests to create good educational environments and increase students' confidence. Leithwood et al. (2020) note how engaged students are with academic endeavors and the classroom. Previous studies have evaluated Bandura's theory's suitability in several educational settings, particularly those demonstrating how transformational leadership increases engagement by increasing followers' self-efficacy (Prochazka et al., 2017). Based on an effective theoretical foundation from earlier research, this study seeks to understand how teacher leadership and student self-efficacy influence student engagement in educational institutions in China. Chinese culture emphasizes authority and respect for teachers, which may amplify the impact of leadership behavior, which is different from the cultural background of Western countries. Focusing on China's particular context, this study aims to provide a more in-depth analysis of the theoretical study on the leadership effect on enhancing student growth and educational quality.

By incorporating theoretical analysis with practical use, researchers have compiled several empirical studies to examine how teachers' transformational leadership encourages individuals' active involvement in educational activities. This empirical study examined how certain transformational leadership practices impact student engagement, such as encouraging critical thinking among children and setting lofty targets. Additionally, this study examined how this relationship was mediated by self-efficacy. The benefits are anticipated to provide a scientific foundation for developing educational policies and controlling techniques while encouraging academics and policymakers to think critically of ways to improve educational quality and achieve better learning effects.

LITERATURE REVIEW

In addition to improving teaching and learning standards and promoting student development, transformational leadership has gained a significant place in education (Anderson, 2017). This type of leadership can significantly increase student engagement, particularly in technical schools in China. Student engagement is crucial in higher vocational schools (Heilporn et al., 2024). It is linked to students' academic performance, personal growth, and shaping of their future career trajectories. In this situation, student self-efficacy has been suggested as a possible



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intermediary factor connecting instructor leadership styles and student engagement. This literature review revolves around various fundamental elements. I begin by outlining the larger research context in which this study was conducted. Second, I will examine concepts related to teacher transformational leadership, student engagement, and student self-efficacy, along with their theoretical frameworks. Lastly, I will formulate the study's hypotheses and organize the relationships among students' engagement, self-efficacy, and teachers' transformational leadership. This study aims to thoroughly review previous research investigating the connection between transformational leadership in the classroom and student engagement in Chinese higher education, emphasizing the role of self-efficacy in this relationship.

Research Context

Academics have been interested in educational leadership theory and how various leadership styles have impacted student progress in the mid-twentieth century. According to Mews (2019), higher education has long relied on transactional leadership and other traditional types of educational administration. However, these approaches have shown that they cannot meet or motivate students to participate (Bass & Riggio, 2006). The diversity of student needs, driven by globalization, technological innovations, and socioeconomic changes, is causing a shift in educational leadership from traditional models to transformational leadership. Recent research has demonstrated that transformational leadership is essential while significantly influencing the improvement of education and addressing the developmental requirements of students in Chinese educational institutions (Sun et al., 2017). Transformational leadership is necessary to respond effectively to the rapidly evolving social and economic circumstances.

Chinese HVE institutions are adopting fascinating academic strategies to enhance student's learning outcomes and experiences. With the development of teaching methods and technologies, student engagement (which is closely related to student learning outcomes) has become a significant indicator of teaching quality (Bond et al., 2020). Policymakers and educational institutions are developing new approaches and strategies to improve student engagement. For example, the Chinese Ministry of Education (MOE) released guidance documents in 2019 and 2021 highlighting the importance of leadership and innovative teaching methods in enhancing educational effectiveness and student engagement (MOE, 2019d, 2021). These activities, among other things, aim to enhance scholar motivation and academic performance. Transformational leadership is crucial in guaranteeing the successful execution of these strategies, enabling adaptation to present and future educational demands and difficulties (Jiabing, 2021).

Global educational studies have demonstrated that transformational leadership increases student engagement (Hinds, 2021; Jiabing, 2021) and self-efficacy (Jingkun et al., 2021; Santoso et al., 2020). Within the context of Chinese Higher Vocational Education (HVE), there is insufficient research on this leadership style. This study examines the impact of transformational leadership within the framework of global educational reform with a specific emphasis on China. This gap was addressed using quantitative research methods. We anticipate that this interdisciplinary approach will enhance the comprehension of teacher leadership theories and provide practical guidance to practitioners on effectively implementing transformational leadership alongside psychological and sociological theories. This enhancement will enable the development of innovative instructional strategies and will have a lasting positive influence on students' long-term growth. Furthermore, new insights into the creation and execution of global education policies may be derived from this study's conclusions.

Theoretical Framework

Teacher Leadership

Strong teacher leadership is widely recognized as crucial in the education sector, although its exact definition is still subject to debate (Javidan et al., 2006). Within promoting student-to-student learning and teaching, York-Barr and Duke (2004) emphasized teacher leadership in facilitating peer-to-peer teaching and learning, whereas Pounder (2014) concentrated on the interaction between teachers and students. Teacher leadership extends beyond the formal responsibilities of teachers and includes diverse ways in which they contribute to improving instruction, as



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emphasized by the research conducted by Wenner and Campbell (2017). Tahir et al. (2021) showcase the significant impact of leadership on enhancing educational achievements in public institutions, necessitating a specific set of skills and competencies.

Transformational Leadership

Burns (1978) defines transformational leadership as an approach to management that encourages and supports followers' growth as leaders and motivates them to achieve excellence. This leadership model includes four fundamental pillars: (1) idealized influence, (2) inspirational motivation, (3) intellectual stimulation, and (4) personalized care. Transformational leadership, a well-studied and effective leadership style, has demonstrated its notable influence in various organizational contexts, including education (Okoth, 2018). Pedraja-Rejas et al. (2018) examined the efficacy of transformational leadership among educators.

Teacher's Transformational Leadership

Although teacher leadership should embody transformational leadership qualities, educators frequently fail to fully recognize and value them. Pounder's (2006) model posits that teacher leadership comprises various components of transformational leadership, such as individualized student assistance, involvement in intellectually demanding issues, motivational tactics, and mentorship. According to Balwant (2022), teacher leadership is the deliberate exertion of influence by teachers to guide, coordinate, and facilitate activities and relationships with students. While there may be differing opinions on the extent and scope of these ideas, academics generally agree on the significance of expanding research on teachers' transformational leadership and its impact on college students' grades. Thus, this research began by adopting Balwant's definition of transformational leadership as the initial framework.

Student Engagement

Effective learning and educational outcomes are driven by student engagement, essential for fostering academic achievement and personal growth and serve as the driving force behind effective learning and educational results (Kang & Wu, 2022; Kim et al., 2019). "Engagement" has a variety of factors, including cognitive, emotional, and behavioral characteristics (Fredricks et al., 2004). This comprehensive approach allows for a thorough analysis of students' commitment to the learning process, the pedagogical strategies employed, and the caliber of the learning environment, especially as established by educators (Closs et al., 2021). Transformational leadership, a crucial strategy for educators, significantly influences the development of effective teaching methods and learning environments (Ahmad & Rochimah, 2021). This aspect is essential for enhancing students' engagement.

Teacher's Transformational Leadership to Student Engagement

According to studies conducted by Balwant et al. (2019) and Hinds (2021) on the topic of transformational leadership and its relationship with student engagement, teachers' transformational leadership behaviors; establishing meaningful learning objectives, offering personalized assistance, and promoting students' critical thinking play a crucial role in increasing engagement. According to Thornberg et al. (2022), a strong teacher-student relationship is essential to enhance students' emotional and behavioral presence; however, there has not been much research on different cultural backgrounds, educational systems, and educational stages. However, research conducted by Dutta and Sahney (2016) and Shatzer et al. (2013) indicates that while transformational leadership is a valuable style, its direct impact on student engagement in educational settings in the United States may not always be substantial, which raises the possibility that contextual factors are crucial here. Thus, this study investigate how China's distinct higher education culture and system may affect the relationship between transformational leadership and student participation.

Hypothesis 1: The presence of transformational leadership among teachers in Chinese HVE settings will have a notable and beneficial effect on student engagement.

Self-efficacy

According to Bandura (1978), an individual's belief in their ability to achieve a goal or overcome a challenge is known



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as self-efficacy. In educational settings, She et al. (2021) stated that student self-efficacy accurately predicts intrinsic motivation and achievement in the classroom. Research has claimed that self-efficacy measures within specific domains provide reliable conclusions (Dellafiore et al., 2019). However, there is consensus that a person's perceptions of their competence can be used in a variety of fields (Moreta-Herrera et al., 2021); therefore, the present study chose to adopt a broader conceptualization of self-efficacy and to view learning as a whole rather than focusing on a specific discipline.

Teacher's Transformational Leadership to Self-efficacy

How teachers demonstrate transformational leadership positively affects individual self-efficacy. This transformational leadership style boosts student motivation by promoting academic growth and recognizing their individuality. According to research conducted by Castillo et al. (2020), teachers' ability to inspire students to examine problems and formulate solutions beneficially affects student self-efficacy. Yüner (2020) indicated a strong and positive relationship between students' self-efficacy and transformational teaching methods in a review of 915 Turkish college students. According to Pachler et al. (2019), this leadership style and students' perceptions of their abilities in a university setting are unrelated. These conclusive findings underscore the need for more investigation to understand how individuals' perceptions of their capabilities relate to profound control. This research has developed several theories to investigate this intriguing relationship.

Hypothesis 2: The presence of transformational leadership among teachers in a Chinese higher education setting has a significant and positive impact on students' self-efficacy.

Self-efficacy to Engagement

Research has shown that individual actions are affected by their surroundings, background, core values, and beliefs about success (Mamun et al., 2022). Educational research has demonstrated a strong relationship between student self-efficacy and the level of their active class participation. Student involvement in learning is greatly improved when they have high levels of self-efficacy (Doo & Bonk, 2020; Zapata-Cuervo et al., 2021). While extensive research has investigated the correlation between self-efficacy and student engagement, most studies have concentrated on particular facets of engagement rather than its comprehensive conceptualization (Sökmen, 2021). Moreover, existing research has primarily focused on Western countries. As our understanding of how cultural disparities affect psychological performance grows (Henrich et al., 2010; Lee, 2014; Sinha, 2002), it is imperative to investigate these connections in various national and cultural settings. Therefore, the study's purpose is to test pertinent hypotheses about the changing connection between students' self-efficacy and engagement in Chinese colleges by applying the results of these global viewpoints to this setting.

Hypothesis 3: Student self-efficacy has a significant positive impact on student engagement in the Chinese context of higher education.

Teacher's Transformational Leadership, Self-efficacy and Engagement

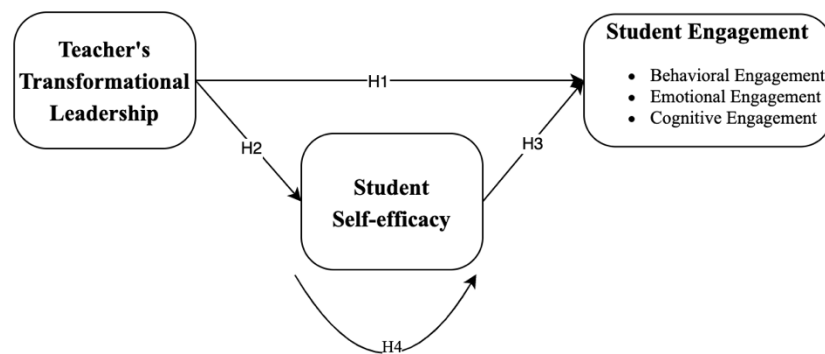
According to the Social Cognitive Theory, humans can actively control their cognitive processes, affective states, and behavioral responses, and this ability is significantly influenced by self-efficacy (McCormick, 2001). Students with higher levels of self-efficacy are more likely to be better equipped to cope with environmental stimuli, which is particularly important in educational settings. Teachers' transformational leadership styles may indirectly enhance student engagement by increasing their self-efficacy. Research has shown that students' beliefs in their learning abilities mediate the relationship between classroom engagement and their actual participation in class (Sökmen, 2021). However, few studies have investigated the processes linking transformative leadership to student engagement (Pachler et al., 2019). Relevant research is scarce, especially in the unique setting of Chinese TVE institutions. Thus, by investigating the mediating function of self-efficacy between transformational leadership and student engagement, this study adds to the existing body of knowledge on how various leadership styles in the classroom affect students' levels of active participation.



Hypothesis 4: Student self-efficacy mediates the relationship between teachers' transformational leadership and student engagement in Chinese TVE settings.

The theoretical underpinnings of this study are based on the theoretical framework proposed by Albert Bandura in his Social Cognitive Theory, which states beliefs in guiding action and the critical role of the environment in shaping beliefs. Early empirical evidence supports this theoretical framework, suggesting that students' self-efficacy is higher in supportive and motivating educational environments, which enhances their academic engagement (El-Sayad et al., 2021). Following this theory and the goals of this study, we developed a hypothetical model (Figure 1). In this model, we predicted that teacher-demonstrated transformational leadership would significantly impact on student engagement, whereas self-efficacy would help strengthen this relationship.

Figure 1. Hypothetical Model



METHODOLOGY

Population and Sampling

This study investigated the connection between transformational leadership among instructors and student engagement in China's higher vocational institutions through a quantitative cross-sectional methodology. Furthermore, the study examined how self-efficacy and engagement mediated the relationship. This study's data source was selected from Jiangsu Province based on its prominence in China's economy and the relatively low direct contribution of higher vocational education to economic development, which is important for research on enhancing the effectiveness of higher vocational education and student engagement. Stratified cluster random selection was used to select a representative sample of the whole in this study, which was determined to be approximately 1034 students based on the confidence interval method, balancing public and private universities in proportion. This method improves the trustworthiness and applicability of the study's findings by ensuring that the sample accurately reflects the target population. Eight hundred seventy-nine students from four public universities and one private university made up the sample, drawn from various cities in the province, improving the representativeness of the data collected.

Instrumentation

A 20-item Multifactor Leadership Questionnaire (MLQ) was administered to assess transformational leadership among instructors. Pounder (2006) expanded upon the work of Bass and Avolio (2000), who created this questionnaire. The survey utilized a five-point Likert scale, where '1' represents 'never' and '5' represents 'always.' The MLQ is divided into five dimensions, each with four questions: (1) individualized consideration (IC), (2) inspired motivation (IM), (3) idealized influence (attributes) (IIA), (4) idealized influence (behaviors) (IIB) and (5) intellectual stimulation (IS). The total score for each dimension represents the corresponding leadership traits. The questionnaire had good internal consistency, as indicated by the obtained Cronbach's α values of IIA ($\alpha=0.877$), IIB ($\alpha=0.913$), IM ($\alpha=0.869$), IC ($\alpha=0.897$), and IS ($\alpha=0.933$), which confirmed the dimensions' reliability. This study



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compares the square root of AVE and the correlation coefficient between the variables to determine the discriminant validity of the instrument. There is good intervariable discriminant validity if the AVE squared is larger than the correlation coefficient. The variables of each dimension of teacher transformational leadership should have values larger than the correlation coefficient between them, which indicates good discriminant validity (Table 1).

Table 1. *Discriminant Validity for MLQ*

Dimension	IIA	IIB	IM	IC	IS
IIA	0.801				
IIB	0.621***	0.852			
IM	0.629***	0.687***	0.791		
IC	0.596***	0.655***	0.613***	0.828	
IS	0.647***	0.692***	0.621***	0.581***	0.883

*Note: Diagonals are values of the root square of the AVE for each variable; ***P<0.001.*

To measure student engagement, the researchers relied on the 15-item University Student Engagement Inventory (USEI) developed by Maroco et al. (2016). The three parts of the USEI, which included five questions each, are behavioral engagement (BE), emotional engagement (EE), and cognitive engagement (CE). The responses were evaluated on a five-point Likert scale, where '1' signifies 'not at all' and '5' for 'always.' Cronbach's alpha coefficient of 0.898 indicated that the scale was reliable. In Table 2, we can see that the student engagement scale has high discriminant validity, meaning that the values of the variables in each dimension are greater than the correlation coefficients between variables.

Table 2. *Discriminant Validity for USEI*

Dimension	BE	EE	CE
BE	0.744		
EE	0.664***	0.725	
CE	0.645***	0.688***	0.736

*Note: Diagonals are values of the root square of the AVE for each variable; ***P<0.001.*

The General Self-Efficacy Scale (GSES), which was created by Schwarzer et al. (1997) is a 10-item measure that helps students evaluate their abilities. The GSES is a unidimensional scale that contains no subscales. Higher grade points indicate a student's perception of self-efficacy. According to this study, the GSES has an extremely high level of inner consistency, as seen by its Cronbach's alpha of 0.92.

Data Collection

Before conducting the study, the researchers consulted all five participating schools to ensure that the survey protocol adhered to the formalities and complied with the study requirements. They were required to provide informed consent before completing the questionnaire, which was crucial for using social research methods. We polled students to determine what they thought of their teachers' transformational leadership, their basic level of engagement, and their perceptions of their classroom abilities. The study respondents were given the correct directions to verify the accuracy of the tips. To improve the accuracy and effectiveness of information gathering, the researcher established communication and provided specific training to the teachers at each college. This communication ensured the polls were appropriately distributed and instructions were clear. During the information control period, miscellaneous information was handled using a computer-based tracking technique, which improved regularity and efficiency by reducing the presence of people. The use of this computerized control technique ensured



accuracy and dependability at this stage of data collection.

Data Analysis

Multivariate statistical methods were used to evaluate the study's data. In evaluating the potential of the variables to predict the outcomes and find patterns in the relationships between them, research and connection analyses were used. The bootstrap method and the structural equation modeling were combined to assess further 'openness and stability.' The product's widespread software in education research and its effectiveness in studying sophisticated models are justifications for choosing this approach. The analyses were conducted using the SPSS 26 and AMOS 26 systems with user-friendly interfaces and precise mathematical skills. Using Cronbach's alpha, we checked how well the scales were held together internally. These statistical measures were chosen based on their strength, common use, and level of assessment theory.

RESULTS

Preliminary Analyses

Table 3 demonstrates that the key indicators analyzed in this study follow a normal distribution. The significant variables have skewness values ranging from 1.26 to 1.63 and kurtosis values ranging from 0.50 to 1.52. These values fall within the normality range defined by Kline and St (2022), which states that skewness should be less than three and kurtosis should be less than eight. Therefore, the distribution of the dataset was ideal. Based on students' evaluations of teachers' transformational leadership, the average rating was 3.97 and a standard deviation of 0.84. This finding suggests an overall positive assessment. Student self-efficacy levels and engagement were marginally diminished. This result was demonstrated to be moderate.

Table 3. Normality Test

Variable	Items	Skewness	Kurtosis	Score	Entry mean
TTL	20	-1.26	0.50	79.45±16.81	3.97±0.84
Eng	15	-1.54	1.52	57.83±10.7	3.86±0.71
Sef	10	-1.63	1.24	37.48±8.57	3.75±0.86

Before conducting structural equation modelling, this study examined the correlation between the three main indicators using the Pearson correlation coefficient method. Table 4 summarizes the findings. According to Westover and Marangell (2002), a correlation coefficient close to 1 indicates a strong linear relationship between the two variables, whereas a correlation close to 0 indicates a weak association. The results of this study showed a robust and statistically significant relationship between student engagement ($r=0.492$, $p<0.01$) and self-efficacy ($r=0.480$, $p<0.01$) when teachers exhibited transformational leadership traits. The students' self-efficacy was also significantly and strongly correlated with their level of engagement ($r=0.453$, $p<0.01$). These fundamental correlations establish a strong basis for structural equation modeling.



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Table 4. Correlation Analysis

Variable	TTL	Sef	Eng
TTL	1		
Sef	0.480**	1	
Eng	0.492**	0.453**	1

Model Effect Analysis

This study utilized Structural Equation Modelling (SEM) to ensure the model's accuracy in forecasting relationships, specifically when investigating the connections between student engagement, self-efficacy, and teachers' transformational leadership behaviors. According to the theory proposed by Anderson and Gerbing (1988), it is crucial to have a model that fits well when carrying out SEM analyses. Hence, a comprehensive evaluation was conducted to determine how well the overall path structure model created a precise explanatory depiction of the gathered dataset. The model was assessed based on the standardized goodness-of-fit index suggested by Bentler (1990). The fit indices presented in Table 5 satisfy the acceptable criteria, indicating a strong alignment between the structural model and the study data.

Table 5. SEM Model Fit Test

Statistical Test	Volume	Symbol	Value	Adaptation	Result
Criteria					
Absolute		RMSEA	0.023	<0.05	Fit
fit indices		GFI	0.938	>0.9	Fit
		AGFI	0.931	>0.9	Fit
		SRMR	0.043	<0.05	Fit
Parsimonious		CMIN/DF	1.562	1-3	Fit
fit indices		PGFI	0.846	>0.5	Fit
		PNFI	0.896	>0.5	Fit
		NFI	0.950	>0.9	Fit
Incremental		IFI	0.981	>0.9	Fit
		RFI	0.947	>0.9	Fit
		TLI	0.980	>0.9	Fit
		CFI	0.981	>0.9	Fit



The Structural Equation Model's Path Coefficient

Table 6 displays the results of the hypothesis testing conducted using the structural equation model. All the projected path coefficients exhibited statistical significance, accompanied by minimal standard errors, thereby highlighting the robustness of the causal relationships within the model, and the accuracy of the structure. Specifically, student self-efficacy was significantly correlated with teachers' transformational leadership ($\beta = 0.665$, $p < 0.001$). The results show that H1 is correct: students' self-efficacy is positively affected by and increased by teachers' transformational leadership. A significant positive correlation ($\beta = 0.397$, $p < 0.001$) was found between students' level of engagement in learning and teachers' transformational leadership. In other words, teachers' transformational leadership improves students' engagement in learning, confirming Hypothesis H2. According to this study, a high degree of student engagement with learning is associated with a strong belief in their abilities. Put simply, students who believe in their abilities to study are more likely to play an active role in their education. Hypothesis H3 is thus supported.

Table 6. SEM Path Coefficients

Route	Estimate (β)	S.E.	C.R.	P
H1 TTL → Sef	0.665	0.047	14.28	***
H2 Sef → Eng	0.236	0.030	7.749	***
H3 TTL → Eng	0.397	0.042	9.484	***

Mediation Effect Analysis

Using self-efficacy as a mediator, Table 7 shows the correlation between students' engagement and their level of self-efficacy. By utilizing the bias correction and percentile methods, the data in the table strongly validate the direct and indirect impacts of these variables, as indicated by the z-values surpassing the critical threshold of 1.96. Notably, the 95% confidence intervals obtained from both methods did not include zero. Hypothesis H4 had a standardized total effect of 0.621, consisting of a direct impact of 0.445 and an indirect impact of 0.176. This data indicated that self-efficacy partially mediated the model, contributing to a mediating effect of 30.2%. This finding lends credence to Hypothesis 4, which postulates that students' beliefs in their abilities mediate, to a lesser extent, the connection between transformational leadership in the classroom and their level of engagement with vocational educational institutions in China.

Table 7. Mediation Analysis

Route	Effect type	Estimate	Coefficient Product		Bootstrap			
			S.E.	Z	Bias-Corrected 95%		Percentile 95%	
					Lower	Upper	Lower	Upper
	Total effect	0.621	0.033	18.82	0.555	0.683	0.556	0.684
H4:TTL→Sef→Eng	Indirect effect	0.176	0.031	5.68	0.118	0.242	0.117	0.240
	Direct effect	0.445	0.052	8.56	0.349	0.540	0.349	0.540



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DISCUSSION

China's higher vocational colleges are currently confronted with the simultaneous task of enhancing educational quality and introducing reforms. The practice of transformational leadership in education has gained significant attention because of the changing educational policies and industry trends. This form of leadership is widely acknowledged as crucial for promoting educational innovation and enhancing educational excellence and has demonstrated significant potential for enhancing student involvement. As a result, research on the mediating function of student self-efficacy and the benefits of transformational leadership on college student engagement is crucial for educators, students and policymakers and has become a significant area of interest for educational research. This study examined the correlations between transformational leadership, student self-efficacy and student engagement. It utilized a quantitative research approach to analyze how transformational leadership can enhance student engagement by improving self-efficacy. Initial findings indicate that teachers' leadership style, specifically their ability to inspire and motivate, has a notable and beneficial effect on students' classroom engagement. Additionally, the belief in one's capabilities and self-efficacy (confidence in abilities) is vital in enabling this connection.

According to current research, students' engagement levels positively correlated with teachers' transformational leadership. Our original hypothesis and the transformational leadership theories presented by Bass and Riggio (2006) and Ryan and Deci (2017) were given credit for this outcome. By establishing learning objectives, assigning inspiring tasks and providing personal instruction, teachers with transformational leadership styles can inspire and motivate students in higher vocational education. In effect, this encourages student engagement and intrinsic motivation. Moreover, culture emphasizes reverence and deference towards authority figures, particularly teachers, which are highly valued in Chinese culture. This is especially so within the framework of Chinese higher education. In this cultural context, transformational leadership designs are very effective in motivating and promoting people through the development of trust and respect. This leadership approach also helps to create classroom environments that promote high levels of student engagement.

Additionally, the results align with studies conducted by Alamri (2023) and Procházka et al. (2017), demonstrating the value of transformational leadership in increasing employee engagement. Contrasting earlier studies, this study examines the teacher-student relationship within a Chinese higher education institution. It views students as followers and instructors as leaders of a revolutionary movement. The method used in this study provides new insights into the fundamentals of training administration and expands our understanding of how a transformational leadership style promotes active involvement.

In a Chinese institutional environment, this research supports Hypotheses 2, 3 and 4, which assert that student self-efficacy mediates between teachers' levels of transformational leadership and engagement. This finding coincides with Bandura's Social Cognitive Theory, particularly his triadic model of reciprocity, which emphasizes the interplay between environmental, behavioral and individual factors (Ahmad & Rochimah, 2021). The study found that transformational leadership fostered a conducive environment for promoting behavioral change among students. Additionally, self-efficacy is crucial as a personal belief system within this environment, motivating individuals to take positive action. Teachers' transformational leadership fosters student self-efficacy, leading to heightened intrinsic motivation and greater classroom engagement.

This study provides the foundation for social cognitive theory implementation in college classrooms and new insights into the effects of transformational leadership education sectors. It also provides a framework for applying social cognitive theory to practical educational environments. These findings help us apply transformational leadership to improve student self-efficacy, foster comprehensive engagement, and build holistic growth. The conclusions of this study are consistent with those of Tims et al. (2011) and Chen et al. (2014). Additional findings from these studies indicate the link between transformative leadership and enhanced engagement is mediated by followers' confidence in their abilities. This research emphasizes the value of transformational leadership styles in informal managing roles



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like teacher-student leader-follower relationships rather than how previous studies generally focused on transformational leadership in formal business structures. This approach broadens the knowledge of leadership's effects outside traditional academic roles and understanding of the impact of leadership beyond conventional teaching positions.

IMPLICATIONS

Practical Implication

Using the tenets of transformational leadership theory, this study examined teaching and management practices in Chinese higher education institutions. It focuses on identifying new opportunities to enhance teachers' professional development. We propose the creation of specialized teacher training programs that not only improve teachers' transformational leadership skills to inspire and motivate but also concentrate on methods to boost students' belief in their abilities through personalized teaching strategies. For instance, training could emphasize how to set meaningful learning objectives, provide individualized support, and encourage critical thinking, all of which contribute to students' engagement. Furthermore, the research supports policy recommendations to include self-efficacy assessments in student evaluation systems at higher education institutions. This inclusion would encourage educational policymakers and administrators to utilize these data to enhance student involvement. Simultaneously, this study offers a practical structure for ongoing enhancements within educational institutions. Teachers, administrators, and students are urged to reassess their roles, embrace more motivating and inspiring leadership styles and promote greater student involvement in their learning. Practically, this necessitates a modification of the school's culture to foster an increase in students' beliefs in their abilities and the creation of novel methods to encourage student involvement.

Theoretical Implication

This study integrates teacher leadership, transformational leadership, and social cognitive theory and applies the triadic reciprocity model from social cognitive theory to explore its relationship with teacher transformational leadership in Chinese Higher education institutions. This study deepens our understanding of transformational leadership and teacher leadership and theoretically expands the intersection between these concepts and social cognitive theory. In addition, this study highlights the applicability of these theories in cross-cultural contexts by comparing them with the international literature, providing evidence of varied leadership styles and their effects on student conduct in different educational settings. The results provide credence to the theories' universal applicability and directions for adapting existing models to different cultural contexts.

LIMITATION AND RECOMMENDATION

This study examined how student engagement changed due to teachers' transformational leadership styles in Chinese colleges. The importance of student self-efficacy was brought to light in this study. Undoubtedly, the study was subject to certain limitations, including its dependence on specific data sources, which could have introduced bias due to the subjective nature of the participants. To improve future research dependability and accuracy, it is recommended to utilize diverse data sources and employ triangulation. Furthermore, the cross-sectional design resulted in a lack of causality.

To better understand the complex interplay between transformational leadership, students' perceptions of their abilities and class participation level, future studies should use longitudinal or experimental methodology. Sample selection restrictions may affect the results' generalizability. To improve the external validity and generalizability of future studies, a diverse range of higher education institutions (HEIs) and student populations from various backgrounds, it is advised to include a broader geographical area. Future research could investigate less researched variables, introduce novel theoretical frameworks or conduct relevant studies in diverse educational settings to enhance a better understanding of transformational leadership and actively contribute to educational practice.



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CONCLUSION

Pursuing this research allowed us to analyze how student engagement in Chinese higher vocational colleges and universities changed when instructors used transformational leadership styles. This relationship was analyzed in detail by considering the mediating effects of student self-efficacy. These findings indicate that transformational leadership among educators directly and positively correlated with student engagement. Additionally, it can enhance the development of positive behaviors and attitudes by boosting students' self-efficacy. These findings address a previously unexplored area in the current body of research and offer valuable perspectives for improving educational methods and shaping policies. The study's rigor and sufficiency of data, especially within the evidence of mediating effects, support the reliability of the results. Not only does this research highlight the practical benefits of transformational leadership in raising student engagement in college settings, but it also expands its beneficial influence on the broader education sector. Furthermore, this study offers precise suggestions for enhancing leadership training programs and creating assessment tools to measure students' engagement. These efforts are intended to contribute to the ongoing enhancement of education quality and address the research gap on transformational leadership in Chinese vocational institutions.

This study brings our theoretical knowledge about the function of leadership in educational systems that are not Western. It also shows how important it is to take cultural factors into account when applying theories of leadership to new situations. Simultaneously, the researcher acknowledges the study limitations and offers clear perspectives that could influence the interpretation of findings. Subsequent investigations should strive to expand upon the present discoveries, surmount existing constraints and formulate new research inquiries derived from these findings. Upon reflection, we acknowledge that this study is important for education and advocates for the ongoing investigation and enhancement of educational methodologies that can significantly contribute to the advancement of educational development.

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DECLARATION OF CONFLICTING INTERESTS

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REFERENCES

- Ahmad, M., & Rochimah, H. (2021). Improving teaching effectiveness through transformational leadership and integrity. *International Journal of Evaluation and Research in Education (IJERE)*, 10(4), 1316. <https://doi.org/10.11591/ijere.v10i4.21801>
- Alamri, M. (2023). Transformational leadership and work engagement in public organizations: Promotion focus and public service motivation, how and when the effect occurs. *Leadership & Organization Development Journal*, 44(1), 137-155. <https://doi.org/10.1108/lodj-12-2021-0544>



MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anderson, M. (2017). Transformational leadership in education: A review of existing literature. *International Social Science Review*, 93(1), 4.
- Balwant, P. T. (2022, 2022/01/02). 'Keeping it real' authentic instructor-leadership, student engagement and performance, and leader distance. *International Journal of Leadership in Education*, 25(1), 39-65. <https://doi.org/10.1080/13603124.2019.1657593>
- Balwant, P. T., Birdi, K., Stephan, U., & Topakas, A. (2019). Transformational instructor-leadership and academic performance: A moderated mediation model of student engagement and structural distance. *Journal of Further and Higher Education*, 43(7), 884-900.
- Bandura, A. (1978, 1978/01/01/). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in Behaviour Research and Therapy*, 1(4), 139-161. [https://doi.org/https://doi.org/10.1016/0146-6402\(78\)90002-4](https://doi.org/https://doi.org/10.1016/0146-6402(78)90002-4)
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory.
- Bass, B. M., & Avolio, B. J. (2000). *MLQ, Multifactor Leadership Questionnaire sampler set: Technical report, leader form, rater form, and scoring key for MLQ form 5x-short*. Mind Garden. <https://books.google.com.my/books?id=-3PMngEACAAJ>
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Taylor & Francis. <https://books.google.com.my/books?id=2WsJSw6wa6cC>
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological bulletin*. <https://doi.org/10.1037/0033-2909.107.2.238>
- Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2020). Mapping research in student engagement and educational technology in higher education: A systematic evidence map. *International Journal of Educational Technology In Higher Education*. <https://doi.org/10.1186/s41239-019-0176-8>
- Burns, J. M. (1978). *Leadership*. New York.
- Castillo, I., Molina-Garcia, J., Estevan, I., Queralto, A., & Alvarez, O. (2020, Jul 5). Transformational teaching in physical education and students' leisure-time physical activity: The mediating role of learning climate, passion and self-determined motivation. *Int J Environ Res Public Health*, 17(13). <https://doi.org/10.3390/ijerph17134844>
- Chen, Y. S., Chang, C. H., & Lin, Y. H. (2014). Green transformational leadership and green performance: The mediation effects of green mindfulness and green self-efficacy. *Sustainability*, 6(10), 6604-6621. <https://doi.org/10.3390/su6106604>
- Closs, L. Q., Mahat, M., & Imms, W. (2021). Learning environments' influence on students' learning experience in an Australian Faculty of Business and Economics. *Learning Environments Research*, 25(1), 271-285. <https://doi.org/10.1007/s10984-021-09361-2>
- Dellafiore, F., Pittella, F., Arrigoni, C., Baroni, I., Conte, G., Pasquale, C. D., Casole, L., Villa, G., & Caruso, R. (2019). A Multi-phase study for the development of a self-efficacy measuring scale for ostomy care nursing management. *Journal of Advanced Nursing*, 76(1), 409-419. <https://doi.org/10.1111/jan.14242>
- Doo, M. Y., & Bonk, C. J. (2020). The effects of self-efficacy, self-regulation and social presence on learning engagement in a large university class using flipped learning. *Journal of Computer Assisted Learning*, 36(6), 997-1010. <https://doi.org/10.1111/jcal.12455>
- Dutta, V., & Sahney, S. (2016). School leadership and its impact on student achievement. *International Journal of Educational Management*, 30(6), 941-958. <https://doi.org/10.1108/ijem-12-2014-0170>
- El-Sayad, G., Saad, N. H. M., & Ramayah, T. (2021). How higher education students in Egypt perceived online learning engagement and satisfaction during the COVID-19 Pandemic. *Journal of Computers in Education*, 8(4), 527-550. <https://doi.org/10.1007/s40692-021-00191-y>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109. <https://doi.org/10.3102/00346543074001059>
- Heilporn, G., Raynault, A., & Frenette, É. (2024, 2024/01/01/). Student engagement in a higher education course: A multidimensional scale for different course modalities. *Social Sciences & Humanities Open*, 9, 100794.



MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- <https://doi.org/https://doi.org/10.1016/j.ssaho.2023.100794>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466(7302), 29-29.
- Hinds, D. M. (2021). *A causal comparative study of the transformational leadership behaviors of social work professors and first year student engagement in the classroom*. Grand Canyon University.
- Javidan, M., Dorfman, P. W., de Luque, M. S., & House, R. J. (2006). In the eye of the beholder: Cross cultural lessons in leadership from Project GLOBE. *The Academy of Management Perspectives*, 20(1), 67-90. <https://doi.org/10.5465/AMP.2006.19873410>
- Jiabin, Y. (2021). Online instructor transformational leadership and student engagement in higher education: A literature review. *Cross-Cultural Communication*, 17(2), 8-18.
- Jingkun, Z., Haiming, H., & Jianjun, Y. (2021). The relationship between teacher transformational leadership and students' motivation to learn in higher education. *Higher Education of Social Science*, 20(2), 39-51.
- Kang, X., & Wu, Y. (2022). Academic enjoyment, behavioral engagement, self-concept, organizational strategy and achievement in EFL Setting: A multiple mediation analysis. *PLoS One*, 17(4), e0267405. <https://doi.org/10.1371/journal.pone.0267405>
- Kim, H. J., Hong, A. J., & Song, H. D. (2019). The roles of academic engagement and digital readiness in students' achievements in university e-learning environments. *International Journal Of Educational Technology In Higher Education*, 16(1). <https://doi.org/10.1186/s41239-019-0152-3>
- Kline, R., & St, C. (2022). *Principles and Practice of Structural Equation Modeling*. The Guilford Press.
- Kyriakidēs, L., Christoforou, C., & Charalambous, C. Y. (2013). What matters for student learning outcomes: A Meta-analysis of studies exploring factors of effective teaching. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2013.07.010>
- Lee, J. (2014). Universal factors of student achievement in high-performing Eastern and Western countries. *Journal of Educational Psychology*, 106(2), 364.
- Leithwood, K., & Sun, J. (2012). The nature and effects of transformational school leadership. *Educational Administration Quarterly*. <https://doi.org/10.1177/0013161x11436268>
- Leithwood, K., Sun, J., & Schumacker, R. (2020). How school leadership influences student learning: A test of "the four paths model". *Educational Administration Quarterly*, 56(4), 570-599.
- Liu, X., Gao, J., Zhang, Y., Liu, J., & Geng, B. (2022). *Relationship between college teachers' transformational leadership and college students' learning engagement: Moderating effect of academic self-Efficacy*. DPU International Conference on Business Innovation and Social Sciences 2022.
- Mamun, A. A., Hayat, N., Mohiuddin, M., Salameh, A. A., Ali, M. H., & Zainol, N. R. (2022). Modelling the significance of value-belief-norm theory in predicting workplace energy conservation behaviour. *Frontiers in Energy Research*, 10. <https://doi.org/10.3389/fenrg.2022.940595>
- Maroco, J., Maroco, A. L., Campos, J. A. D. B., & Fredricks, J. A. (2016, 2016/04/19). University student's engagement: Development of the University Student Engagement Inventory (USEI). *Psicologia: Reflexão e Crítica*, 29(1), 21. <https://doi.org/10.1186/s41155-016-0042-8>
- McCormick, M. J. (2001). Self-Efficacy and leadership effectiveness: Applying social cognitive theory to leadership. *Journal of Leadership Studies*, 8(1), 22-33. <https://doi.org/10.1177/107179190100800102>
- Mews, J. (2019). Effective leadership in higher education: A review of leadership style preferences among faculty and staff within the United States. *Open Journal of Leadership*. <https://doi.org/10.4236/ojl.2019.82004>
- MOE. (2019d). "Opinions of the Central Committee of the Communist Party of China and the State Council on deepening education and teaching reform and comprehensively improving the quality of compulsory education"-《中共中央 国务院关于深化教育教学改革全面提高义务教育质量的意见》. http://www.moe.gov.cn/jyb_xgk/moe_1777/moe_1778/201907/t20190708_389416.html
- MOE. (2021). Notice of the General Office of the Ministry of Education on carrying out the selection of national college graduates' employability training bases-教育部办公厅关于开展全国高校毕业生就业能力培训基地遴选工作的通知. http://www.moe.gov.cn/srcsite/A15/s3265/202109/t20210922_565673.html
- Moreta-Herrera, R., Lara-Salazar, M., Camacho-Bonilla, P., & SÁNchez-Guevera, S. (2021). Factor analysis, reliability and validity of the general self-efficacy scale (GSE) in Ecuadorian students. *Psychology, Society &*



MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- Education*, 11(2), 193-204. <https://doi.org/10.25115/psye.v11i2.2024>
- Nurabadi, A., Irianto, J., Bafadal, I., Juharyanto, J., Gunawan, I., & Adha, M. A. (2021). The effect of instructional, transformational and spiritual leadership on elementary school teachers' performance and students' achievements. *Jurnal Cakrawala Pendidikan*. <https://doi.org/10.21831/cp.v40i1.35641>
- Okoth, U. A. (2018). Head teachers' characteristics and instructional leadership in curriculum implementation in secondary schools, Siaya County, Kenya. *European Scientific Journal Esj*, 14(19), 75. <https://doi.org/10.19044/esj.2018.v14n19p75>
- Pachler, D., Kuonath, A., & Frey, D. (2019). How transformational lecturers promote students' engagement, creativity, and task performance: The mediating role of trust in lecturer and self- efficacy. *Learning and Individual Differences*, 69, 162-172. <https://doi.org/10.1016/j.lindif.2018.12.004>
- Pedraja-Rejas, L., Massó, R. V., & Castañeda, J. R. (2018). The importance of leadership styles in the quality of university academic units [Article]. *Opcion*, 34(86), 130-151. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058690969&partnerID=40&md5=fd71b4200678c0ce2cdddf5d632016d>
- Pounder, J. (2006). Transformational classroom leadership: The fourth wave of teacher leadership? *Educational Management Administration & Leadership*, 34(4), 533-545. <https://doi.org/10.1177/1741143206068216>
- Pounder, J. (2014). Quality teaching through transformational classroom leadership. *Quality Assurance in Education*, 22(3), 273-285. <https://doi.org/10.1108/QAE-12-2013-0048>
- Prochazka, J., Gilova, H., & Vaculik, M. (2017). The relationship between transformational leadership and engagement: Self-efficacy as a mediator. *Journal of Leadership Studies*, 11(2), 22-33. <https://doi.org/10.1002/jls.21518>
- Procházka, J., Gilová, H., & Vaculík, M. (2017). The relationship between transformational leadership and engagement: Self-efficacy as a mediator. *Journal of Leadership Studies*, 11(2), 22-33. <https://doi.org/10.1002/jls.21518>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness* [doi:10.1521/978.14625/28806]. The Guilford Press. <https://doi.org/10.1521/978.14625/28806>
- Santoso, P. B., Purba, J. T., Ugut, G. S. S., & Budiono, S. (2020). The role of transformational leadership, self efficacy and professional competence on knowledge sharing and lecture performance. *Kontigensi: Jurnal Ilmiah Manajemen*, 8(2), 187-201.
- Schwarzer, R., Bassler, J., Kwiatek, P., Schroder, K., & Zhang, J. X. (1997). The assessment of optimistic self-beliefs: comparison of the German, Spanish, and Chinese Versions of the general self-efficacy scale. *Applied psychology*, 46(1), 69-88. <https://doi.org/10.1080/026999497378557>
- Senior, R., Bartholomew, P., Soor, A., Shepperd, D. P., Bartholomew, N., & Senior, C. (2018). "The rules of engagement": Student engagement and motivation to improve the quality of undergraduate learning. *Frontiers in Education*. <https://doi.org/10.3389/educ.2018.00032>
- Shatzer, R. H., Caldarella, P., Hallam, P. R., & Brown, B. L. (2013). Comparing the effects of instructional and transformational leadership on student achievement. *Educational Management Administration & Leadership*, 42(4), 445-459. <https://doi.org/10.1177/1741143213502192>
- She, L., Ma, L., Jan, A., Nia, H. S., & Rahmatpour, P. (2021). Online learning satisfaction during COVID-19 pandemic among Chinese University Students: The serial mediation model. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.743936>
- Sinha, D. (2002). Culture and psychology: Perspective of cross-cultural psychology. *Psychology and Developing Societies*, 14(1), 11-25. <https://doi.org/10.1177/097133360201400102>
- Sökmen, Y. (2021). The role of self-efficacy in the relationship between the learning environment and student engagement. *Educational Studies*, 47(1), 19-37.
- Sun, J., Chen, X., & Zhang, S. (2017). A review of research evidence on the antecedents of transformational leadership [Review]. *Education Sciences*, 7(1), Article 15. <https://doi.org/10.3390/educsci7010015>
- Tahir, L. M., Samah, N. A., Anis, S. N. M., & Ali, M. F. (2021). Implementing teacher leadership in Malaysian Schools: Exploring secondary principals' perspectives. *Management in Education*, 38(1), 5-21.



MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL MANAGEMENT (MOJEM)

- <https://doi.org/10.1177/08920206211053099>
- Teuber, Z., Tang, X., Salmela-Aro, K., & Wild, E. (2021). Assessing engagement in chinese upper secondary school students using the Chinese version of the schoolwork engagement inventory: Energy, Dedication, and Absorption (CEDA). *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2021.638189>
- Thornberg, R., Forsberg, C., Hammar Chiriatic, E., & Bjereld, Y. (2022, 2022/11/02). Teacher–student relationship quality and student engagement: A sequential explanatory mixed-methods study. *Research Papers in Education*, 37(6), 840-859. <https://doi.org/10.1080/02671522.2020.1864772>
- Tims, M., Bakker, A. B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement? *The Leadership Quarterly*, 22(1), 121-131. <https://doi.org/10.1016/j.leaqua.2010.12.011>
- Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., Liria, R. L., & Rocamora-Pérez, P. (2020). The influence of transformational teacher leadership on academic motivation and resilience, burnout and academic performance. *International Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph17207687>
- Wenner, J. A., & Campbell, T. (2017). The theoretical and empirical basis of teacher leadership: A review of the literature [Review]. *Review of Educational Research*, 87(1), 134-171. <https://doi.org/10.3102/0034654316653478>
- Westover, A. N., & Marangell, L. B. (2002). A Cross-national relationship between sugar consumption and major depression? *Depression and Anxiety*. <https://doi.org/10.1002/da.10054>
- York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Educational Research*, 74(3), 255-316.
- Yüner, B. (2020). Transformational teaching in higher education: The relationship between the transformational teaching of academic staff and students' self-efficacy for learning. *Educational Policy Analysis and Strategic Research*, 15(4), 350-366. <https://doi.org/10.29329/epasr.2020.323.19>
- Zapata-Cuervo, N., Montes-Guerra, M. I., Shin, H. H., Jeong, M. A., & Cho, M.-H. (2021). Students' psychological perceptions toward online learning engagement and outcomes during the COVID-19 pandemic: A comparative analysis of students in three different countries. *Journal of Hospitality & Tourism Education*, 35(2), 108-122. <https://doi.org/10.1080/10963758.2021.1907195>
- Zhao, Y., & Ko, J. (2020). How do teaching quality and pedagogical practice enhance vocational student engagement? A mixed-method classroom observation approach. *International Journal of Educational Management*.