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## **A Model for Enhancing Teachers Leadership Competencies In Higher Vocational Colleges in Weifang City, China**

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### **Abstract**

Teacher leadership has received much attention in recent years in both Chinese and Western educational circles. It is an essential factor that affects teacher development, schooling, and student success. This study aimed to develop a model to enhance teachers' leadership competencies in higher vocational colleges in Weifang China. The study used qualitative and quantitative methods, and the subjects were teachers in higher vocational colleges in Weifang, China. Firstly, the systematic literature method was applied to sort out and analyze the teacher leadership competencies that teachers in Chinese higher vocational colleges should possess to summarize the eight competencies of teacher leadership in Chinese higher vocational colleges: Reflective Practices, Personal Effectiveness, Interpersonal Effectiveness, Communication, Continuous learning and education, Group Processes, Adult Learning, Technological Facility. A questionnaire was administered to teachers using random sampling, and 497 valid questionnaires were received. The questionnaires were then analyzed using the Priority Needs Index Analysis to find the teacher leadership competencies that need to be prioritized for development. Based on the results of the study combined with the theory of teachers' professional development, the researchers developed a leadership competency enhancement model and professional development activities for teachers in higher vocational colleges in Weifang, China, which were validated by experts.

**Keywords:** Teacher Leadership Competencies, Professional Development, Higher Vocational College in China

## Introduction

The advent of the 21st century has brought many new challenges to mankind, and students are now expected to learn more knowledge and practical skills than ever before. In response to these demands, practitioners, researchers, policymakers, and educational leaders have initiated a systematic and strategic planning process to improve the quality of teacher learning. This process encompassed a range of activities, including the recruitment, preparation, and support of teachers, as well as the creation of mentoring and other leadership opportunities. (Darling-Hammond et al., 2017).

China's education system is currently undergoing a significant transformation, with the government placing a heightened emphasis on vocational education. In October 2021, the General Office of the CPC Central Committee and the General Office of the State Council The Council published the Opinions on Promoting the High-Quality Development of Modern Vocational Education, which proposed strengthening the construction of the teaching staff for higher vocational education, enhancing the moral character and virtue of teachers, and comprehensively improving the quality of teachers. Teacher leadership in vocational education was particularly important in China, where efforts were made to modernize the vocational training system and align it with industry needs. Teacher leadership played a crucial role in aligning vocational education programs with industry standards. Vocational education in China was designed to equip students with specific job skills; however, the rapidly evolving economy required curricula to be constantly updated (Yan & He, 2012). With their knowledge of industry trends and connections to local businesses, teacher leaders were well-positioned to ensure that vocational education curricula remained relevant and responsive to market needs (Hu & Cheng, 2015).

In Weifang, China, the specific problem related to teacher leadership in vocational schools is centered around the challenges these institutions face in aligning their curricula and teaching practices with the rapidly evolving demands of the local labor market. Like much of China, Weifang's economy experienced shifts driven by technological advancements and changes in industry needs, necessitating a skilled workforce in new and emerging fields. However, vocational schools in Weifang often struggle with limited resources and outdated curricula, which hinder the ability of teachers to provide relevant, high-quality instruction that meets industry standards (Xia & Shen, 2018). Furthermore, vocational institutions in Weifang may face a shortage of faculty equipped with industry-specific expertise and leadership skills necessary to lead curriculum development, foster collaboration with local industries, and promote professional growth among staff (Zhang et al., 2020). These challenges underscored the need for strengthening teacher leadership in vocational schools to support educational innovation and improve student outcomes.

Therefore, it became essential to help teachers define their roles as teacher leaders and identify factors that promoted or inhibit the development of teacher leadership (Shelton, 2014). Researchers put forward a suitable model for leadership development by studying teacher leadership at Weifang Higher Vocational College to help Weifang Higher Vocational Colleges promote teacher leadership development.

### **Research Objectives**

1. To explore the leadership competencies of teachers at higher vocational colleges in China.
2. To identify the desired and current leadership competencies of teachers in higher vocational colleges in Weifang City, China.
3. To identify the needs for teachers' leadership competencies in higher vocational colleges in Weifang City, China.
4. To develop a model for enhancing teacher leadership competencies in higher vocational colleges in Weifang City, China.
5. To validate a model for enhancing teachers' leadership competencies in higher vocational colleges in Weifang City, China.

### **Literature Review**

Leadership is not a singular, universal phenomenon; it manifests in different forms for each individual who embarks on the leadership journey. Teacher leaders possess a diverse range of backgrounds and skill sets. These individuals share a common aspiration to leverage their expertise to benefit students and enhance the quality of learning. In light of the current educational landscape, leaders with diverse experience and skills must engage in the necessary change and transformation. Similarly, as effective educators adopted a multifaceted approach to their craft, drawing upon diverse perspectives and competencies, teacher leaders must leverage their colleagues' collective strengths and expertise to advance the interests of students and the teaching profession. (National Education Association, 2018)

### **Teacher Leadership Competency Framework (National Education Association, 2018)**

The Teacher Leadership Competency Framework (TLCF) was a conceptual model that outlined the skills, knowledge, and dispositions necessary for teachers to effectively take on leadership roles within educational settings. This framework emphasized the importance of teacher leadership in promoting school improvement, student achievement, and educational reform. It was often used to guide professional development and to help teachers transition into leadership positions while remaining in the classroom. Several studies demonstrated that establishing standards for teacher leaders addresses the absence of professional guidance and standards in implementing teacher leadership roles (Berg & Karlsen, 2016). The programs delineated in the Teacher Leadership Model Standards were comprehensive with respect to their scope. The standards addressed the diverse requirements of teachers at various stages of their careers, with a particular focus on leadership competencies. They underscored the importance of teacher leadership practices and the value of expert feedback. This was done to equip participants with the requisite leadership skills to fulfill their current leadership roles and to establish a foundation for future professional development. Concurrently, formulating a framework for instructional leadership was considered imperative for directing teacher leadership development (Lai et al., 2017). The advent of exemplary teacher leadership standards presented prospects for those aspiring to assume professional challenges and

transition into leadership roles (Shelton, 2014).

### **Teacher Professional Development (Darling-Hammond et al., 2017)**

Teacher Professional Development (TPD) is crucial for educational management and leadership and significantly impacts student learning outcomes. However, many TPD programs failed to meet teachers' pedagogical needs and support student achievement. Darling-Hammond et al. (2017) outlined seven essential elements of effective TPD: content focus, active learning, job-embedded collaboration, modeling of effective practices, coaching and expert support, feedback and reflection, and sustained duration. These components contributed to the holistic development of teachers, equipping them with both the content knowledge and practical skills necessary for leadership roles. According to Carswell (2021), effective teacher leadership involved building relationships, providing growth opportunities, and motivating and empowering teachers. TPD can create an environment that encouraged teachers to engage in meaningful change by fostering autonomy, sharing expertise, and reflecting on leadership abilities. Cheng and Szeto (2016) outlined three stages of teacher leadership. In the initial phase, teacher leaders held managerial roles, which suppressed other teachers' autonomy. In the second phase, teachers acted as curriculum developers, which, despite some benefits, limited their influence across the school. The third phase emphasized collaboration, where teacher leaders engaged in professional practices such as school redesign, mentoring, problem-solving, and participation in TPD activities.

### **Previous Studies Related to Teacher Leadership Competencies in China**

As educational reform progressed, the significance of faculty leadership in the internal development of higher education institutions became increasingly evident (Liu, 2023). In particular, the role aimed to improve school culture, teaching practices, and student achievement. Discussions and research on Teacher Leadership Competencies in China increased year by year in recent years. Studies found that teacher leadership included developing oneself and reflecting on practice as a core driving force for improving educational outcomes (Jiazhi & Batoool, 2024). Zhang et al. (2018) added that pedagogical leadership improved student outcomes by enhancing personal and professional capital. Li (2024) emphasized that interpersonal skills, including empathy, communication, and relationship-building, significantly impacted students' motivation and academic performance. Li (2024) showed that clear and effective teacher communication significantly influenced student engagement and classroom performance. This supported previous studies by Diao and Yang (2021), who found that continuous learning helped teachers stay current with educational innovations and better integrate technology into the classroom. Xu and Sun (2016) noted that fostering a positive campus culture and teamwork significantly enhanced teacher leadership. Zhang et al. (2018) found that adult learning principles, such as experiential and self-directed learning, were essential for teachers to lead effectively within their schools. Zhang et al. (2018) also emphasized that integrating technology into teaching practices was crucial to pedagogical leadership, especially in online and blended learning environments.

## **Research Methodology**

### **Research Design**

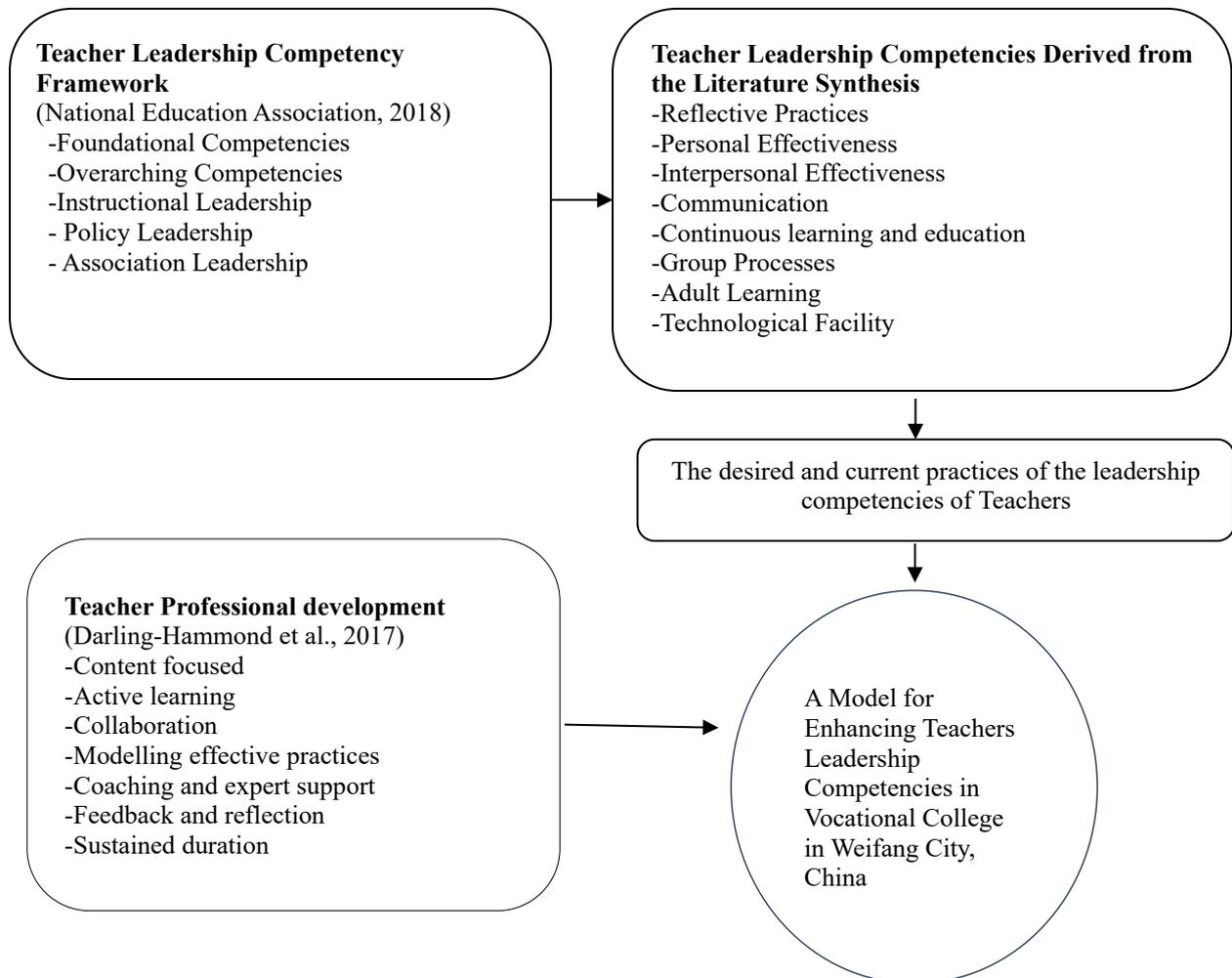
The researcher utilized quantitative and qualitative methods to explore and understand the higher vocational college teacher leadership competencies in Weifang, China. The systematic review will explore research objective 1: teachers' leadership competencies of higher vocational colleges in Weifang City, China. The questionnaires will be used for research objective 2 to identify the current practices of the teachers' leadership competencies in higher vocational colleges in Weifang City, China. The questionnaires will support research objective 3 to find the significant factors influencing teachers' leadership competencies in higher vocational colleges in Weifang City, China. The semi-structured interview will support research objective 4, which is to develop a proposed teacher leadership competencies development model for teachers in higher vocational colleges in Weifang City, China. The results of experts validating a model for teacher leadership competencies in higher vocational colleges in Weifang City helped support Research Objective 5, which is to validate a model for teacher leadership competency development in selected higher vocational colleges in Weifang City.

### **Conceptual Framework**

This study aims to develop a model to enhance teacher leadership competencies in higher vocational education in Weifang City, China. A systematic review was conducted based on the 2018 Teacher Leadership Competencies (National Education Association, 2018); the purpose of the systematic review is to identify the leadership competencies needed for teachers in higher vocational education in China. Later, the list of teachers' leadership competencies will be constructed as a survey to identify the desired and current level of teachers' leadership competencies. The arrows pointing to the middle aim to explore the teacher leadership competencies of higher vocational colleges in China, followed by identifying the desired and current situation of teacher leadership competencies in higher vocational colleges in Weifang, China. The two boxes pointing to the last box aim to develop a model for improving teacher leadership competencies in higher vocational colleges in Weifang, China, based on analyzing desired and current situations combined with the theory of teacher professional development.

**Figure 1**

*Conceptual Framework of the Study*



**Research Sampling**

The data sources for Research Objective One comprised secondary data drawn from published studies, articles, and journals from 2015 to 2024. These materials were obtained from both offline and online sources. The English-language data were downloaded from Google Scholar, Academic Research Library. Information in Chinese was downloaded from the following databases: CNKI (China National Knowledge Infrastructure) and Baidu Scholar. The data sources for Research Objective Two and Three employed a simple random sampling strategy whereby researchers distributed survey request letters to 13 higher vocational colleges in the city of Weifang, China. Four schools provided consent, and the total number of faculty members employed by the four selected higher vocational colleges was 2,916. According to Krejcie and Morgan's table, the corresponding minimum sample size is 341. The researchers distributed 712 questionnaires to the four colleges and ultimately returned 497.

## Research Instruments

The quantitative data for this study was collected through a questionnaire on teacher leadership competencies. The questionnaire was divided into two sections. The first includes demographic data, while the second surveys teacher leadership competencies. The researcher developed this based on the summarized results of the literature review on teacher leadership competencies to measure teachers' desired and current level of leadership competencies in higher vocational colleges in Weifang, China. The questionnaire was produced in two versions, one in English and one in Chinese. The English version was provided by the researcher and translated into Chinese by a qualified translation agency. The Chinese version was used in this study to facilitate teachers' understanding of the questionnaire questions in higher vocational colleges in Weifang, China.

To ensure that the questions of the questionnaire are in line with the actual situation of teacher leadership in higher vocational colleges in Weifang City, Shandong Province, and to ensure the validity of the study, the researcher investigated the validity of the questionnaire by using the Index of Item-objective Congruence (IOC). The questionnaire was evaluated by a panel of five experts in higher vocational education. To test the reliability of the questionnaire, 107 candidates were used to confirm the reliability of the questionnaire. The Cronbach alpha coefficients were above 0.87, and the questionnaire was reliable.

Furthermore, the researchers employed a semi-structured interview instrument in Objective Four. The data analysis findings for Objectives Two and Three were presented to the interviewees, after which a draft model was constructed through the thematic analysis of the interview content.

## Results and Discussion

The following section presents the findings and conclusions derived from the five research questions.

**Research Objective One:** To explore the leadership competencies of teachers at higher vocational colleges in China.

The researchers employed A systematic review method to extract key terms related to teacher leadership competencies in Chinese higher vocational institutions from the literature based on the relevant content of the Teacher Leadership Competency Framework (National Education Association, 2018). This process identified eight key terms and 43 subkey terms. The following Chinese teacher leadership competencies were summarized: Reflective practice, Personal Effectiveness, Interpersonal Effectiveness, Communication, Continuous Learning and Education, Group processes, Adult Learning, and Technology facility. For further details, please refer to Table 1.

**Table 1***Summary of Teacher Leadership Competencies in Chinese Higher Vocational Colleges*

No	Keyword	Sub-keyword	Description
1	Reflective Practices	<ul style="list-style-type: none"> <li>- Self-Assessment and Awareness</li> <li>- Feedback Integration</li> <li>- Journaling and Written Reflection</li> <li>- Action Research</li> <li>- Reflective Dialogue and Collaborative Reflection</li> </ul>	Reflective practice involves an ongoing process of self-examination and critical analysis of one's teaching and leadership practices to improve and adapt to changing educational needs. Reflective practices enable teacher leaders to continually grow, refine their strategies, and make informed decisions to increase effectiveness.
2	Personal Effectiveness	<ul style="list-style-type: none"> <li>-Self-Management</li> <li>-Goal Setting and Achievement</li> <li>-Decision-Making and Problem-Solving</li> <li>-Accountability and Integrity</li> <li>- Resilience and Adaptability</li> </ul>	Teacher leadership's ability to manage themselves, their time, their emotions, and their relationships to achieve personal and professional goals. Personal effectiveness increases the ability of teacher leaders to influence others, lead initiatives, and contribute to the school's overall success.
3	Interpersonal Effectiveness	<ul style="list-style-type: none"> <li>- Emotional Intelligence (EI)</li> <li>- Persuasion</li> <li>-Facilitating Collaboration</li> <li>- Understanding Diversity</li> <li>- Promoting Equity and Inclusion</li> <li>-Mentorship and Coaching</li> <li>-Building Trusting Relationships</li> </ul>	The ability of teacher leadership to communicate, collaborate, and build strong relationships in the school environment. These skills enhance their impact on students and colleagues and create a positive educational atmosphere.
4	Communication	<ul style="list-style-type: none"> <li>- Clear and Effective Communication</li> <li>- Active Listening</li> <li>- Non-verbal Communication</li> <li>- Advocacy</li> </ul>	Plays a crucial role in promoting collaboration through communication with teachers, parents, and students, guiding teaching practices and supporting school-wide initiatives
5	Continuous Learning and Education	<ul style="list-style-type: none"> <li>- Lifelong Professional Development</li> <li>- Staying Informed on Educational Research and Trends</li> <li>- Collaboration and Learning Communities</li> <li>- Adaptation to Policy and Curriculum Changes</li> <li>-Encouraging a Culture of Continuous Learning</li> </ul>	Teachers lead ongoing professional and personal development behaviors. Maintaining leadership effectiveness, keeping up with educational trends, and fostering a school learning culture is important.
6	Group Processes	<ul style="list-style-type: none"> <li>- Communication and Dialogue</li> <li>- Shared Decision-Making</li> <li>- Role Allocation</li> <li>- Cohesion</li> <li>-Collaboration and Teamwork</li> <li>-Conflict Resolution</li> <li>-Goal Setting and Accountability</li> </ul>	In teacher leadership, the dynamics and interaction of a group of teachers working together toward a common goal. These processes are critical to fostering effective collaboration, decision-making, and innovation in educational Settings.

No	Keyword	Sub-keyword	Description
7	Adult Learning	-Self-Directed Learning -Experiential Learning - Relevance-Oriented Learning - Motivation to Learn - Transformative Learning - Contextual Learning	Adult learning in the context of teacher leadership focuses on the development of educators as lifelong learners and has important implications for how teacher leaders engage in professional development, mentor peers, and promote learning communities within schools.
8	Technological Facility	- Technology Integration in Instruction -Support for Digital Citizenship - Innovation and Problem-Solving - Equity in Access to Technology	Teachers integrate and utilize technology to enhance their leadership and teaching practices. It includes using technology to foster collaboration, improve teaching outcomes, and support achieving school-wide goals.

**Research Objective Two:** To identify the desired and current leadership competencies of teachers in higher vocational colleges in Weifang City, China.

A total of 497 valid questionnaires were received from teachers of higher vocational colleges. Of the individuals who completed the questionnaire, 256 (51.5%) were male, and 241 (48.5%) were female. The participants were divided according to age, with 29 individuals (5.8%) belonging to the 20-30 age group, 255 (51.3%) to the 31-40 age group, 201 (40.4%) to the 41-50 age group, and 12 (2.4%) to the 51-60 age group. The third category was that of educational level, with 174 participants (35%) having obtained a Bachelor's degree, 296 participants (59.6%) having obtained a Master's degree, and 27 participants (5.4%) having obtained a PhD. The final category is that of teaching experience, with 121 participants (24.3%) having less than five years of experience, 78 (15.7%) having between six and ten years, 105 (21.1%) having between 11 and 15 years, 142 (28.6%) having between 16 and 20 years, and 51 (10.3%) having over 20 years of experience.

Descriptive statistics, which analyze the mean and standard deviation of teacher leadership competency levels, can be used to visualize the desired and current levels of teacher leadership. For further details, please refer to Table 2.

**Table 2**

*The Desired and Current of Teacher Leadership Competencies (n= 497)*

Teacher Leadership Competencies	M	SD	Interpretation	M	SD	Interpretation
Reflective Practices	4.28	0.59	High	3.85	0.79	High
Personal Effectiveness	4.56	0.36	Very High	4.01	0.80	High
Interpersonal Effectiveness	4.29	0.60	High	4.12	0.76	High
Communication	4.31	0.63	High	4.11	0.84	High
Continuous Learning and Education	4.54	0.40	Very High	3.82	0.86	High
Group Processes	4.29	0.65	High	3.91	0.92	High
Adult Learning	4.50	0.40	Very High	3.95	0.85	High
Technological Facility	4.5	0.38	Very High	3.89	0.81	High
Overall	4.41	0.33	High	3.96	0.59	High

Table 2 shows a summary of the desired levels of teacher leadership competencies. The overall mean score for the desired competencies was interpreted as high ( $M = 4.41, SD = 0.33$ ). Personal Effectiveness ( $M = 4.56, SD = 0.36$ ), Continuing Learning and Education ( $M = 4.54, SD = 0.40$ ), Adult Learning ( $M = 4.50, SD = 0.40$ ), and Technological Facility ( $M = 4.50, SD = 0.38$ ) were all interpreted as very high. Among them, Personal Effectiveness was the highest desired score. In contrast, Reflective Practice ( $M = 4.28, SD = 0.59$ ), Interpersonal Effectiveness ( $M = 4.29, SD = 0.60$ ), Communication ( $M = 4.31, SD = 0.63$ ), and Group Processes ( $M = 4.29, SD = 0.65$ ) were interpreted as high, with Reflective Practice being the lowest desired score. Table 2 also summarizes the current level of teacher leadership competencies. The overall mean score for the current competencies is interpreted as High ( $M = 3.96, SD = 0.59$ ). Interpersonal Effectiveness is the highest current score, interpreted as high ( $M = 4.12, SD = 0.76$ ). At the same time, continuous learning and education have the lowest current score, which is interpreted as high ( $M = 3.82, SD = 0.86$ ).

**Research Objective Three:** To identify the needs for teachers' leadership competencies in higher vocational colleges in Weifang City, China.

In Objective Three of this study, the researcher analyzed the findings of Objective Two through the data in the table below to identify the teacher leadership competencies that need to be prioritized for development by the teachers of higher vocational colleges in Weifang, China.

**Table 3**

*The Priority Needs Index Regarding for Teacher Leadership Competencies of Weifang, China (n= 497)*

Teacher Leadership Competencies	Desired		Current		PNI <sub>modified</sub>	Rank	Strength (<M)	Weakness (>M)
	M	SD	M	SD				
Continuous Learning and Education	4.54	0.40	3.82	0.86	0.188	1		1
Technological Facility	4.5	0.38	3.89	0.81	0.157	2		2
Adult Learning	4.5	0.40	3.95	0.85	0.139	3		3
Personal Effectiveness	4.56	0.36	4.01	0.80	0.137	4		4
Reflective Practices	4.28	0.59	3.85	0.79	0.112	5	4	
Group Processes	4.29	0.65	3.91	0.92	0.097	6	3	
Communication	4.31	0.63	4.11	0.84	0.049	7	2	
Interpersonal Effectiveness	4.29	0.60	4.12	0.76	0.041	8	1	

Mean of PNI<sub>modified</sub> = 0.115

Table 3 shows that the mean PNI<sub>modified</sub> value for teacher leadership was 0.115. Based on the rankings, Continuous Learning and Education had the highest (PNI<sub>modified</sub> = 0.188) value. Technology Facilities PNI<sub>modified</sub> = 0.157), Adult Learning (PNI<sub>modified</sub> = 0.139), and Personal Effectiveness (PNI<sub>modified</sub> = 0.137). The PNI<sub>modified</sub> values for all four categories of teacher leadership competencies exceeded 0.155, indicating that the discrepancy between the current and expected standards is considerable. Thus, developmental initiatives to address these

deficiencies must be prioritized. In addition, Reflective Practice ( $PNI_{\text{modified}} = 0.112$ ), Group Processes ( $PNI_{\text{modified}} = 0.097$ ), Communication ( $PNI_{\text{modified}} = 0.49$ ), and Interpersonal Effectiveness ( $PNI_{\text{modified}} = 0.041$ ). It can be observed that the scores of these four items are lower than the average  $PNI_{\text{modified}}$  score, which proves that these four variables are stronger.

**Research Objective Four:** To develop a model for enhancing teacher leadership competencies in higher vocational colleges in Weifang City, China.

Before developing a model draft, the researcher selected eight experts from the four higher vocational colleges under study for semi-structured interviews using purposive sampling. The eight experts included four individuals occupying faculty management roles and four faculty members. They all had more than 15 years of experience in higher vocational education. Following the semi-structured interviews with the experts, a thematic analysis of the content of the interviews was conducted. The objective was to ascertain whether the results of the previous study reflected the current situation of teacher leadership competence in higher vocational colleges in Weifang City. Based on the experts' feedback, appropriate teacher professional development activities were then developed and aligned with the elements of the teacher leadership model. The aforementioned analytical process facilitates the development of a teacher leadership model that is more suitable for the target group. See Table 4 for an analysis of the themes of the expert interviews.

**Table 4**

*Summary of Themes from Semi-Structured Interviews (n= 8)*

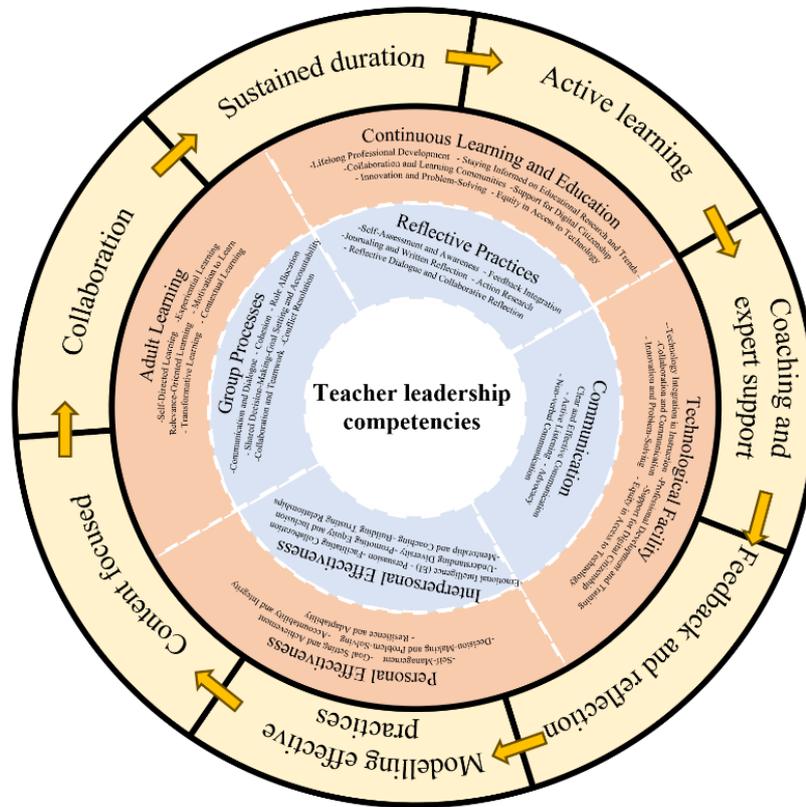
Question	Theme/Conclusive Finding
1. what are the most critical competencies for teacher leadership based on the relevant data obtained from this study?	Continuous learning capacity communication skills, interpersonal skills, personal effectiveness, team organization skills, Reflection and feedback skills,
2. What type of professional development activities do you think would be most effective in enhancing Continuing Education and Learning?	Activities include a series of interactive lectures, group discussions on individual and collective goals, the creation of individualized development plans, group sessions focused on discipline-specific or interdisciplinary teaching techniques, peer presentations on best practices and innovative teaching strategies, collaborative lesson plans and material exchange, and monthly classroom observations by coaches followed by feedback sessions. Additionally, participants may opt for one-on-one or small group coaching sessions with individualized support and online learning with resources and support from instructional experts.
3. What type of professional development activities do you think would be most effective in enhancing the Technological Facility ?	Activities include workshops on content-specific digital tools. The provision of teacher-created interactive learning tasks for digital lessons or assessments. Opportunities for practical engagement with technology to enrich the content of instructional materials. The program includes monthly collaborative labs where teachers demonstrate technology-enhanced lessons—providing an opportunity for peer feedback and allowing educators to discuss the successes and challenges of technology

Question	Theme/Conclusive Finding
	integration. Furthermore, it includes coaching demo sessions for modeling technology integration.
4. What type of professional development activities do you think would be most effective in enhancing Adult Learning?	Activities include interactive lectures on adult learning principles—group discussions to relate theory to faculty experience. Practice designing experiential, problem-based content that is relevant to adult learners. Monthly meetings for faculty to share successes and challenges of teaching adults. Group brainstorming about engagement strategies for adult learners. Group coaching sessions to address specific challenges in adult education. Access an online resource center with research articles, toolkits, and instructional videos on adult learning. Monthly group reflection meetings to discuss growth, insights, and areas for improvement. Instructional leader sessions on modeling instructional strategies for adults.
5. What type of professional development activities do you think would be most effective in enhancing Personal Effectiveness	Activities include interactive sessions on time management, goal setting, and prioritization. Guided exercise on identifying personal strengths and areas for improvement. Creation of an individual development plan focusing on personal effectiveness. Exercises on creating time-bound schedules and prioritizing tasks. Peer discussion on common time management challenges and solutions. Expert-led guidance on managing classroom stress and workload and maintaining work-life balance. Reflective journaling to assess progress and set new personal goals. Real-time Q&A sessions with exemplary teachers to share their approaches to improving personal productivity.

By integrating quantitative and qualitative data, the researchers constructed a model for teacher leadership competencies in higher vocational colleges in Weifang, China. The four teacher leadership competencies with significant discrepancies between the desired and current levels were incorporated into the model, emphasizing the crucial areas for development. The remaining four teacher leadership competencies were also included, as they are also leadership competencies that teachers should possess. Given that teacher leadership training and development is a dynamic process that needs to be integrated with the application of teacher professional development, the seven elements of Darling-Hammond et al.'s theory of teacher professional development were also incorporated into the model. A draft of the model is shown in Figure 2

Figure 2

Draft Model for Enhancing Teacher Leadership Competencies in Higher Vocational Colleges in Weifang, China.



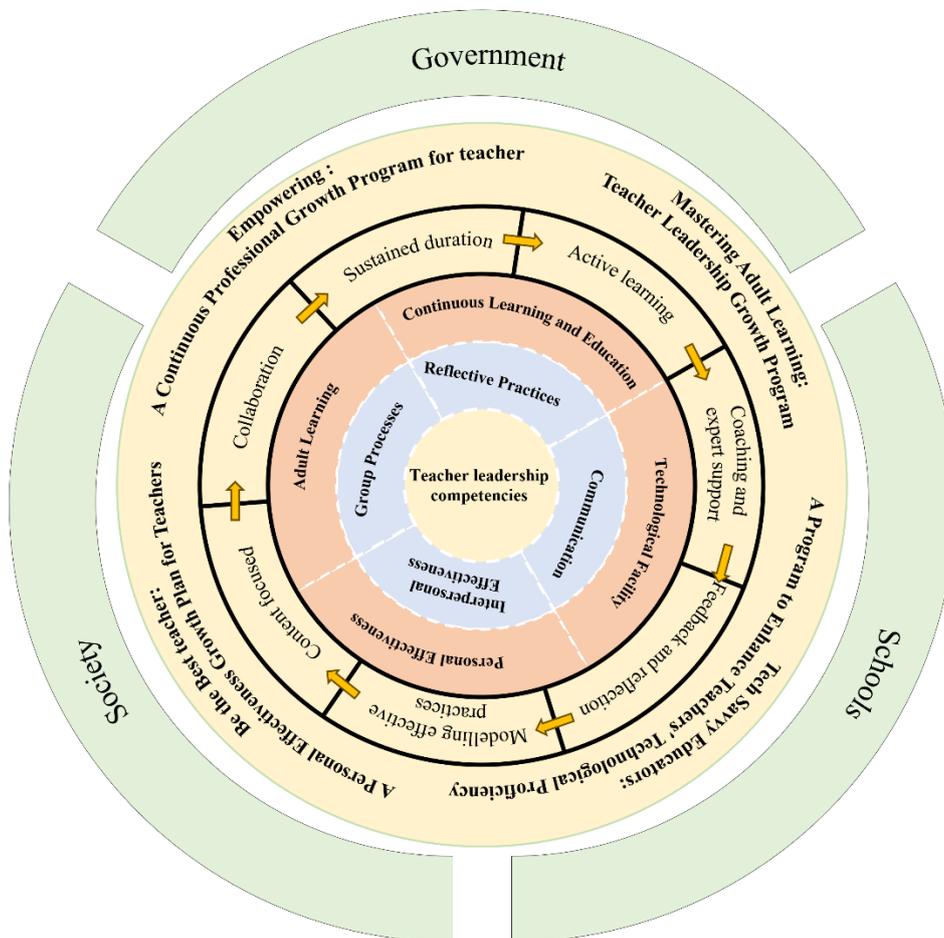
Source: Author

**Research Objective Five:** To validate a model for enhancing teachers' leadership competencies in higher vocational colleges in Weifang City, China.

The researchers utilized the Delphi methodology to validate and optimize the teacher leadership model to ensure scientific and practical rigor. A total of fifteen experts participated in the model validation process. The initial phase of deliberations entailed a comprehensive evaluation of the prevailing perception of the Teacher Leadership Competency Model. Following the conclusion of the expert group discussion, the opinions expressed by the experts were summarized and analyzed to identify those aspects of the model that were unanimously agreed upon. The draft model (Figure 2) was then modified per the recommendations the experts put forth. Subsequently, the modified model and its accompanying description were presented to the experts for a second round of discussion. The experts concurred on the final model, as they deemed the modified model to be more aligned with practical requirements and operationalization. The final model is shown in Figure 3

Figure 3

*A Model for Enhancing Teacher Leadership Competencies in Higher Vocational Colleges in Weifang, China.*



Source: figure 2

The final model comprises six layers. The first layer, which is the model's innermost circle, represents the model's core objective, namely to enhance teachers' leadership competencies. This objective applies to the teachers of Weifang Higher Vocational College in China. The second and third layers encompass the eight dimensions of teacher leadership competencies. The four competencies in the second layer represent areas where the discrepancy between the desired and current leadership competencies is minimal. These four competencies are Reflective Practices, Group Processes, Communication, and Interpersonal Effectiveness. The third layer comprises teacher leadership competencies where the discrepancy between the anticipated and the actual is considerable, necessitating a focus on their advancement. These four competencies are Continuous Learning and Education, Technological Facility, Adult Learning, and Personal Effectiveness. The fourth circle represents the seven elements of teacher professional development theory (Darling-Hammond et al., 2017). The seven elements are content-focused, active learning, collaboration, modeling effective practices, coaching and expert support, feedback and reflection, and sustained duration. The fifth layer is the specific designation of the teacher leadership development activity, designed to address deficiencies in

teacher leadership competencies. However, its implementation also facilitates the co-improvement of other interdependent teacher leadership competencies. The four teacher leadership competencies development activities are Empowering: A Continuous Professional Growth Program for Teachers, Tech Savvy Educators: A Program to Enhance Teachers' Technological Proficiency, Mastering Adult Learning: Teacher Leadership Growth Program, and Be the Best Teacher: A Personal Effectiveness Growth Plan for Teachers. The sixth layer, representing the outermost aspect of the model, was generated following the experts' validation of the model and subsequent discussion. During this discussion, the experts posited that within the context of China, the government, society, and schools also play a pivotal role in teacher leadership development.

### **Conclusion**

Teachers' leadership competencies served as a critical safeguard for school growth and student success, underscoring their vital role in educational institutions (Wenner & Campbell, 2017). The study identified eight teacher leadership competencies essential for teachers in Chinese higher vocational colleges through a systematic literature approach: Reflective Practices, Personal Effectiveness, Interpersonal Effectiveness, Communication, Adult Learning, Group Processes, Continuous Learning and Education, and Technological Facility. The questionnaire results show that all eight current teacher leadership competencies of Weifang Higher Vocational College are high. After conducting a Priority Needs Index analysis, the Continuous Learning and Education, Technology Facilities, Adult Learning, and Personal Effectiveness Teacher Leadership Competencies levels were below the PN PNI<sub>modified</sub> mean and must be prioritized for development.

The researcher constructed a model for developing teacher leadership competencies based on the results of the study and expert advice, and experts validated it. In conclusion, the study successfully created a structured model to be used specifically to improve the leadership competencies of teachers in higher vocational education institutions in Weifang, China. The model is expected to be a valuable tool for developing effective higher vocational education teacher leadership. This study's findings and the developed model primarily address enhancing teacher leadership competencies in the specific context of higher vocational colleges in Weifang City, China. While rooted in this localized setting, the model offers broader insights into the academic study of teacher leadership within the Chinese educational context. By providing a structured and actionable framework, this research is not just a theoretical exercise but a practical reference for teaching institutions in China seeking to improve teacher leadership training programs.

## **Recommendations**

### **For Government Departments of Education**

Firstly, policy support and system construction. Based on the demand for teacher leadership in vocational education, the government clarifies the definition and importance of leadership in higher vocational colleges by formulating relevant policies. It makes it the core content and top priority in constructing quality colleges. Second, building a training system: the Government should use central budget funds to set up a national model training program for vocational education teacher training, to carry out team training, principal training, and teacher training, and to play the role of high-end leadership and demonstration. In accordance with China's national conditions, it should build teacher training bases and conduct vocational training at different levels according to the needs of vocational education development. Third, the government promotes a school-enterprise cooperation mechanism: The government encourages colleges and enterprises to establish a mechanism for cooperation in vocational education and training, construct practical training bases, and project cooperation. Enterprise experts' practical experience and technical knowledge can provide valuable guidance to schools and help teachers improve their practical skills and leadership. Fourthly, the application of information technology: The government promotes the construction an information technology training system for teachers in tertiary institutions. This system will design courses at different levels, from basic digital tools and technologies to advanced big data analysis applications. This system aims to improve teachers' digital leadership gradually. The training will be conducted using an 'online + offline' mode. This will be combined with hands-on digital technology application training. This will help teachers to better adapt to the digital teaching environment. In addition, the government offers incentives to encourage teachers to enhance their leadership and teaching standards. These include recognition and rewards for those who have demonstrated excellence in vocational education and the provision of special awards to enhance the professional identity and attractiveness of teaching positions.

### **For Higher Vocational Colleges**

Firstly, it is necessary to reduce the constraints imposed by the system on leadership development. This can be achieved by reforming the school management system so that the management process is simplified and the system is optimized. This will enable teachers to work more flexibly and to utilize their leadership skills to their full potential. In the process of enhancing teacher leadership, it is of the utmost importance to avoid any negative consequences and ensure that leadership's positive effects are duly considered. This necessitates the prompt identification and rectification of unsuitable conduct through monitoring and evaluation procedures, thus ensuring the salutary development of leadership. Secondly, opportunities for leadership development should be provided. It is recommended that teachers be encouraged to participate actively in the management and decision-making processes of their respective educational institutions.

Furthermore, it is advised that they be granted expanded decision-making and participation rights, thereby enabling them to assume a more prominent role in managing their schools. This

may be achieved by establishing a teacher participation mechanism that engages teachers in school development planning, teaching and learning management, and other related activities. It is recommended that teachers be encouraged to collaborate and work together in a way that fosters the formation of effective teams. This may be achieved by forming teaching teams, research teams, and so forth, enabling teachers to utilize their expertise in teams, resolve issues collectively, and enhance their overall leadership capabilities. External resources can be made available through collaboration with universities and research institutes, thus providing teachers with additional learning and professional development avenues. Thirdly, the school culture and climate should be strengthened. This will enhance teacher leadership by fostering a favorable educational environment. This can be achieved by organizing teaching seminars, academic exchanges, and book clubs, among other initiatives. These should be implemented to stimulate teachers' motivation and creativity.

### **For Teachers of Higher Vocational Colleges**

The initial step is to enhance self-awareness and establish advancement objectives. This can be achieved through the processes of reading, learning, and coaching evaluation. It is crucial to understand one's leadership style, identify one's strengths and weaknesses, define the goals and directions for improvement in leadership, and formulate a comprehensive learning and training plan based on these goals—secondly, continuous learning and practice. By attending various training and seminars, we learn leadership theories, master leadership skills, and improve our leadership abilities. Attend leadership training courses organized by the school and actively sign up for various seminars. Apply the leadership knowledge and skills learned to actual teaching work and enhance your leadership through practice. Apply leadership knowledge and skills to classroom management and teamwork. Finally, reflect and summarise. It is recommended that teachers engage in regular reflection and summary of their leadership practices. This process should include identifying areas for improvement, developing targeted improvement measures, and implementing continuous improvement strategies.

### **For Future Researchers**

It is recommended that future researchers undertake further studies on teacher leadership in higher vocational colleges in other cities in China. This will enable them to ascertain whether the issues identified in this study are prevalent in all regions of China. Future researchers would also benefit from applying the model developed in this study to assess its efficacy in promoting teacher leadership development in different regions.

### Limitations

It is essential to acknowledge the limitations of the study in terms of its geographical scope. The model developed in this study aims to enhance teachers' leadership competencies in higher vocational colleges in Weifang, China. However, due to geographical limitations, the study's results may not fully represent the overall situation of leadership competencies of teachers in higher vocational colleges in China or other regions. The conclusions drawn from this study may not be applicable when extended to other cities, provinces, or countries.

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