Development of Indicators and Approach for Enhancing Chinese Language Teacher Leadership of Secondary Schools in the Northeast

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Abstract

The leadership of Chinese language teachers holds great importance, as teachers play a crucial role in shaping the future of students and society as a whole. Currently, China recognizes the significance of education management, and as the center of economic and social development in Asia, teacher leadership becomes a vital factor in ensuring quality learning outcomes. This research aims to achieve the following objectives: 1) Explore the components and leading indicators of Chinese language teachers in secondary schools in the northeast region of Thailand; 2) Test the concordance of the measurement model for Chinese teacher leadership; 3) Study the approach for enhancing Chinese language teacher leadership; and 4) Investigate the results of implementing the approach at the secondary school. The research employed a mixed methods approach, consisting of four phases. Descriptive statistics and statistical packages were utilized for data analysis. The results revealed that the leadership of Chinese language teachers at the secondary level comprises four main components and twelve indicators. The measurement model for Chinese teacher leadership demonstrated consistency with empirical data, displaying statistical significance with a P-value of 0.30, RMSEA of 0.033, SRMR of 0.04, CFI of 0.99, and TLI of 0.99. Based on these findings, the approach for enhancing Chinese language teacher leadership, including the following aspects: Change leader: Teachers should possess a systematic operational plan that aims towards desired goals and be adaptable to adjust according to the situation. Self-development: Teachers need to formulate development plans for future goals, acquire knowledge, skills, and academic leadership, and exhibit creative thinking and innovative approaches. Teaching role model: Teachers should foster an environment that encourages freedom of thought, assertiveness, and strong teacher-student relationships. Participation in development: Teachers should collaboratively plan curriculum development, ensuring that teaching and learning meet international standards of academic excellence. They should also encourage multilingual communication and the production of creative work. Finally, the implementation of the guidelines yielded positive results, proving their appropriateness, feasibility, and usefulness across all aspects at a high level.

Keywords: indicator development, Chinese language teacher leadership, teacher leadership development guidelines

1. Background and Significance of the Problem

Driving the country begins with "education" because education is the foundation of national development, which is the fundamental right of all Thai people. The state must develop Thai people of all ages to prosper in all aspects of intellectual capital, develop skills, characteristics, and competencies in livelihoods. Therefore, there must be a framework and direction for the country's education management, by focusing on providing education for all Thai people to have access to opportunities and equality in quality education. Develop an efficient education management system. Develop manpower to have the capacity to work in line with the needs of the labor court and national development (The Secretariat of the Education Council, 2017).

Therefore, the role of teacher leadership is very important in the development of a better educational institution the teacher leader will contribute to improving the quality of teaching and learning, developing teachers to be teacher leaders, and using leadership to improve and develop teaching and learning. This will create a collaborative learning network under practice in a professional learning community. Leader teachers must be knowledgeable, competent, experienced, and keep up with the world situation, Teaching and learning can be organized with the learner at the

center of the development that must be taught taking into account the abilities, interests, and needs of the learners. Future teachers must have quality standards at the level of professional teachers and most importantly, one must have a vision to lead and raise the quality of school education to accommodate higher educational competition. These characteristics must be teacher leadership abilities that need to be developed (Anusara Suwannawong, 2017). Enhancing Chinese teacher leadership is important because it can improve student outcomes, promote innovation and excellence in education, and contribute to the long-term development of China. These are some effective approaches for enhancing Chinese teacher leadership. By implementing these approaches, teachers can become more effective leaders, improve their teaching skills, and contribute to the overall improvement of education in China. This can ultimately benefit students and the society as a whole. School leaders and policymakers need to prioritize and invest in enhancing teacher leadership in China to ensure a better future for the country. In summary, the system approach for enhancing teacher leadership is a holistic and collaborative approach that seeks to create a supportive system for teacher leadership. It involves analyzing the existing system, identifying areas for improvement, developing coherent policies and practices, and continuously monitoring and evaluating the approach to ensure effectiveness and improvement (Washburn-Moses, L., & Blasé, J. 2015). Overall, Chinese language teacher leadership can play a vital role in improving teaching and learning, promoting collaboration, and empowering teachers in the Chinese education system.

2. Conceptual Framework

After reviewing relevant literature, which includes Leithwood and Duke (1999), Snell (2000), Childs-Bowen (2000), Crowther (2002), Suranna (2002), York-Barr and Duke (2004), Ackerman (2006), the Office The Board of Basic Education (2010) found that there were 15 components of teacher leadership, this research used criteria to determine the frequency of the elements that most researchers identified as key elements of teacher leadership (60%). The components of teacher leadership can be selected to be used as a conceptual framework for research. There are 4 main components: 1. Self-development, consisting of 1) self-development vision 2) self-confidence 3) Being a teacher leader 2. To be a teaching role model, consisting of 1) using a variety of teaching methods 2) promoting self-learning 3) promoting a learning atmosphere 3. Participation in the development consists of 1) Teamwork 2) Having common development goals 3) A collaborative network of operations and 4. Change Leader, consisting of 1) Being a systems thinker 2) Change management 3) Being able to use information technology as shown in Figure 1.
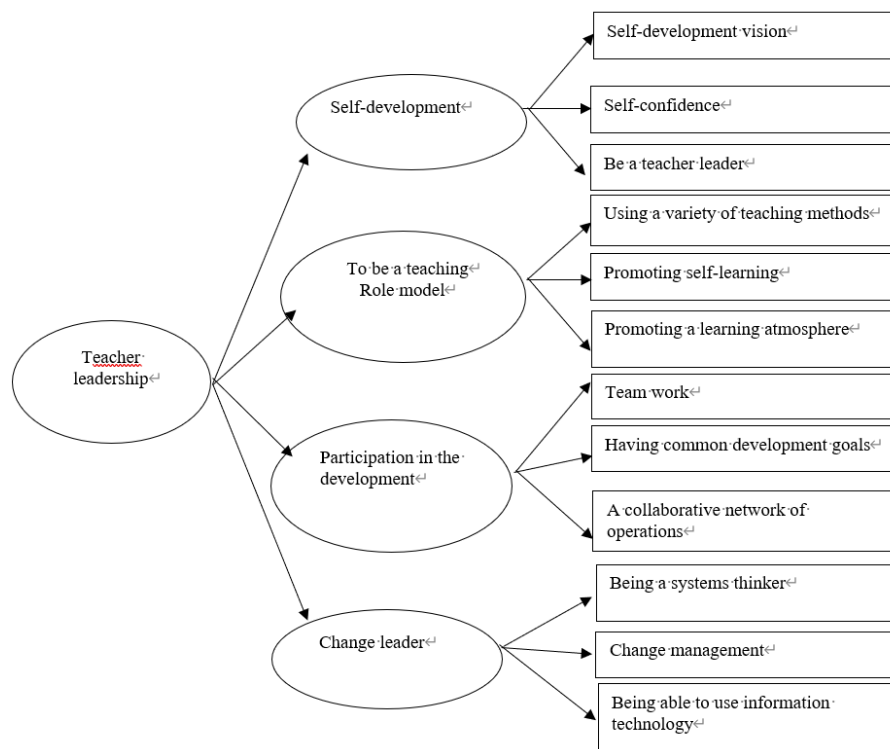

Figure 1.

Therefore, the researcher is interested in studying the leadership development approaches for Chinese language teachers in secondary schools in the northeastern region. This is a study from theory to measurement model construction where the researcher can verify the consistency of the teacher leadership measurement model. Developed from theory and research with empirical data and from checking the quality of indicators from qualified experts and those involved, including using the research results to create a guideline for developing teacher leadership. To be used as a guideline for planning for teacher development that is consistent with current conditions, which will help enhance teachers' performance efficiency and effectiveness in the future.

3. Objectives of the Research

(1) To study the components and indicators of the leadership of secondary school Chinese language teachers in the northeastern region.

(2) To test the consistency of the model for measuring the leadership of Chinese language teachers at the secondary level in the northeastern region.

(3) To study the approach for enhancing Chinese language teachers leadership at the secondary level in the northeastern region.

(4) To study the results of implementing the approach for enhancing Chinese language teachers leadership at the secondary school level in the northeastern region.

4. Research Methodology

This mixed-method research was conducted in four phases to provide objective answers, as outlined below.

Phase 1: Study the components and indicators of leadership of Chinese language teachers at the secondary level in the northeastern region . Study the qualitative data by 7 experts to consider its validity. the appropriateness of the variables using a semi-structured interview. Data analysis by Content Analysis.

Phase 2 involved testing the consistency of the leadership of Chinese language teachers at the secondary level in the northeastern region. Quantitative data was analyzed using advanced statistical methods. The sample comprised Chinese teachers from secondary schools in the Northeast, selected through stratified random sampling based on the ratio criteria suggested by Hair et al. (2010), which recommends a sample size of 20:1 in relation to the parameters studied. Since this research involved 16 parameters, a total of 320 subjects were included in the study. Online questionnaires were utilized to collect data, ensuring content validity by examining the Index of Content Validity (IOC) values ranging from 0.8 to 1.00. The questionnaire's reliability was assessed using Cronbach's alpha coefficient, which yielded a value of 0.95. Data analysis was conducted through confirmatory factor analysis to assess the concordance between the structure-component relationship model and the factor loading of the sub-variables used to construct the indicators. This analysis was based on empirical data obtained from the questionnaire responses, enabling the determination of sub-variable factor loadings for indicator construction. The research models, which were theoretical models developed by the researcher, were further assessed and validated using second-order confirmatory factor analysis with the empirical data.

Phase 3: Study the approach for enhancing Chinese language teachers leadership at the secondary level in the northeastern region, Study qualitative data by inviting experts to participate in focus group discussions to reflect on the results of suitability. possibilities and usefulness of leadership development approaches.

Phase 4: Study the results implementing of the approach   for enhancing   Chinese language teachers leadership   at the secondary school, study qualitative data from the results of implementing the guidelines, the guidelines were adapted to secondary schools that were interested and willing to try them out. Then analyze content based on key elements.

5. Research Results

Presenting the results of the confirmatory factor analysis of the leadership of Chinese language teachers at the secondary level in the northeastern region, The details of each component can be shown as follows:

(1) Self-development, was found that the factor loading of the components that had the highest values was having a vision for self-improvement, factor loading was 0.86 and had a forecasting coefficient equal to 0.74, followed by Self-confidence, factor loading was 0.70 and had a forecasting coefficient of equal to 0.49. and the component with the lowest factor loading was the teacher leader with the factor loading equal to 0.69 and the predictive coefficient equal to 0.48.

(2) As a teaching model, was found that the components that had the highest values were Promoting a learning atmosphere, factor loading was 0.74 and a forecasting coefficient equal to 0.55, followed by Promote self-learning The factor loading was 0.69, the predictive coefficient was 0.47, and the component with the least factor loading was using a variety of teaching methods. The factor loading was 0.63 and the forecasting coefficient was equal to 0.40.

(3) Participate in the development, was found that the component that had the highest values was having common development goals, factor loading was 0.81 and had a forecasting coefficient equal to 0.66. The factor loading was 0.78 and the forecasting coefficient was equal to 0.61 and the component with the least factor loading was Teamwork. The factor loading was 0.73 and the forecasting coefficient was equal to 0.54.

(4) Change leaders, found that the components that had the highest values were System thinkers, factor loading was 0.89, and had a forecasting coefficient of 0.79, followed by change management. The factor loading was 0.84 and the forecasting coefficient was equal to 0.71 and the component with the least factor loading was Being able to use information technology, factor loading was equal to 0.78 and the forecasting coefficient was equal to 0.61.

Table 1. Presents the results of the confirmatory component analysis of the main components of the leadership of secondary school Chinese language teachers in the northeastern region

components	factor loading			forecasting coefficient (R^2)
	B	S.E.	t	
1. Self-development				
1.1 Self-development vision	0.865	0.037	23.454	0.748
1.2 Self-confidence	0.701	0.056	12.594	0.492
1.3 Be a teacher leader	0.694	0.056	12.439	0.482
2. To be a teaching role model				
2.1 Using a variety of teaching methods	0.634	0.070	9.094	0.402
2.2 Promoting self-learning	0.691	0.065	10.662	0.478
2.3 Promoting a learning atmosphere	0.746	0.057	12.997	0.557
3. Participation in the development				
3.1 Teamwork	0.737	0.052	14.246	0.543
3.2 Having common development goals	0.814	0.046	17.646	0.662
3.3 A collaborative network of operations	0.784	0.050	15.695	0.614
4. Change leader				
4.1 Being a systematic thinker	0.890	0.051	17.364	0.793
4.2 Change management	0.845	0.040	21.066	0.714
4.3 Being able to use information technology	0.782	0.050	15.618	0.612

The approach for enhancing Chinese language teacher leadership, including the following aspects:
Change leader: Teachers should possess a systematic operational plan that aims towards desired goals and be adaptable to adjust according to the situation.

Self-development: Teachers need to formulate development plans for future goals, acquire knowledge, skills, and academic leadership, and exhibit creative thinking and innovative approaches.

Teaching role model: Teachers should foster an environment that encourages freedom of thought, assertiveness, and strong teacher-student relationships.

Participation in development: Teachers should collaboratively plan curriculum development, ensuring that teaching and learning meet international standards of academic excellence. They should also encourage multilingual communication and the production of creative work.

Finally, the implementation of the guidelines yielded positive results, proving their appropriateness, feasibility, and usefulness across all aspects at a high level.

6. Discussion of Research Results

The results of the development of the indicators for the leadership of secondary school Chinese language teachers in the northeastern region found that the indicator model created by the researcher was statistically significant for all indicators, indicating that the components discovered are important components of teacher leadership. This is due to the development of the indicators in this study, the researcher has used the empirical definition method, which is a definition that is close to the theoretical definition that the researcher has determined what sub-variables does the indicator and set the format for combining variables to obtain the indicators by using research theory as the basis. Therefore, the generated indicator model is more accurate and consistent with empirical data (Nongluck Wiratchai, 2008).

The test results of the concordance test of the model for measuring the leading indicators of secondary school Chinese language teachers in the northeastern region with empirical data, it was found that they were consistent with empirical data as follows:

1) Having self-development, was found that the component that had the highest values was Self-development vision, which is a clear plan for future goals that allow you to see the future clearly and analyze and learn what to do with being an optimist, learning from the past and experiences that happen to yourself and others, and being an inspiration to others and using their abilities to their fullest potential to achieve their goals, consistent with Jirawan Lengpanich (2011) explaining that creating a vision is the behavior of expressing information gathering, exchanging opinions with people about what they would like to do and what is possible and then synthesized and analyzed to create a desirable and clear picture of the future, which the definition is linked to vision-building indicators consisting of the synthesis and analysis of information exchanged with people and having a clear vision of the future.

2) To be a teaching role model, was found that the components that had the highest values were Promoting a learning atmosphere which creates an atmosphere of freedom in doing things that will allow children to develop their individuality, dare to think, assertive, self-confidence, dare to take initiative, creativity, leadership and dare to learn new things. Teachers create an atmosphere of a good relationship between teachers and students, consistent with Pimpaphan Thongking (2020) explained that that to create a positive classroom atmosphere in the 21st century for learners to learn effectively, "teachers" must adjust their roles to become "coaches" or "educators". facilitating learning", focusing on students learning to discover for themselves by using the teaching concept of Teach Less, Learn More and adhering to the teaching and learning that focuses on students is important for learners to practice by teachers to guide and help design activities, setting a positive classroom atmosphere in physical terms, including classroom characteristics, materials, and teaching aids the positive classroom atmosphere in psychology is 1) Warmth 2) Freedom 3) Challenge 4) Respect 5) An atmosphere of control and 6) An atmosphere of success, all of which are factors that contribute to learners' learning efficiency. and continue to grow as a quality person.

3) Participation in the development, was found that the component that had the highest values was Having common development goals. It is involved in network targeting. And communicate that goal to members or related parties to recognize and create the same understanding. Create a plan or activity for the event. then put into practice create incentives for all network members to form a bond as if they were a shared owner and become committed to the mission to be accomplished Including creating a plan to control the direction of operations and assess success and failure as well, as consistent with Teeradej Riwmongkol (2013) explained that having a common goal is characteristics of the work of an effective group of people must be a common goal. Everyone takes part in setting goals. taking into account the success, and productivity of work. All members must have both an understanding of the goals to be achieved. have a belief that goals are important and will get effective results and a good goal whether it is a personal goal or a collective goal. Must be a goal that goes in the same direction.

4) Being a change leader, was found that being a systematic thinker; systems thinking is thinking and understanding the whole picture of the system. Seeing the big picture and can connect things this unified systematic thinking is a principled thinking and organized process of thinking, and scientifically reasonable thinking, by holistic thinking, looks like network thinking. think hierarchy interactive thinking. It will be boundary thinking, structured, adaptable to change, and think about it as a feedback circuit in which thinking like this will also affect the big system if there is

a change in the sub-system consistent with Kantawan Sangsurin, Chusorn, P. (2020) explained that case study method is very benefit and useful to develop the managerial factors and then compare results to find out suitable for possible guideline and Phachamon Phumnuom (2012) explained that systematic thinking means thinking about the relationship between things. that can be learned in a sequential manner or as a continuous process and able to analyze the problem or reason that occurs rationally. Start by defining the problem, sub-factor analysis, finding the relationship between sub-factors and the synthesis of problem circuits by the necessary skills to practice; stroke skills (Causal loops), questioning skills (Inquiry), rethinking skills (Reflection), and presentation skills (Advocacy).

In conclusion, the research conducted on the concordance test of the model for measuring the leading indicators of secondary school Chinese language teachers in the northeastern region provides valuable insights into the characteristics and behaviors of effective teachers in this context. The test results, based on empirical data, demonstrate the following key findings:

Having self-development: The highest values in this component were attributed to self-development vision, which involves having a clear plan for future goals, being an optimist, and learning from past experiences. These findings align with the notion that creating a vision is a behavior that involves gathering and analyzing information to create a desirable and clear picture of the future. This component also emphasizes the importance of synthesizing and analyzing information exchanged with others to develop a clear vision. Being a teaching role model: The highest values in this component were found in promoting a learning atmosphere, which encourages freedom, individuality, assertiveness, self-confidence, initiative, creativity, leadership, and the willingness to learn new things. Creating a positive classroom atmosphere that fosters effective learning requires teachers to adjust their roles and become facilitators of learning, focusing on students' active participation and discovery. Additionally, teachers should establish positive relationships with students, characterized by warmth, freedom, challenge, respect, control, and a sense of success. Participation in development: The component with the highest values in this category was having common development goals, involving communication and the creation of shared understanding among network members or related parties. This includes developing plans and activities, implementing them, and creating incentives to foster a sense of ownership and commitment to the shared mission. The research aligns with the idea that effective groups of individuals must have common goals, with all members understanding their importance and believing in their potential for effective results.

Being a change leader: The research highlights the importance of being a systematic thinker in this component. Systematic thinking refers to understanding the whole picture of a system, connecting various elements, and thinking holistically. It involves hierarchical and interactive thinking, adaptability to change, and understanding the impact of sub-system changes on the overall system. The findings support the idea that systematic thinking is a structured and organized thinking process, which involves analyzing problems, identifying sub-factors, and synthesizing problem circuits using skills such as causal loops, inquiry, reflection, and advocacy.

Overall, this research provides valuable insights into the key indicators of effective Chinese language teachers in secondary schools in the northeastern region. The findings suggest that teachers who have a clear self-development vision, create a positive learning atmosphere, participate in common development goals, and exhibit systematic thinking as change leaders are likely to be more effective in their teaching roles. These conclusions have practical implications for the development and improvement of teacher training programs and educational practices in the region.

7. Suggestion

From the research results, there are suggestions for applying the research results. and recommendations for further research as follows:

7.1 Suggestions for Applying Research Results

The results of the development of the indicators for the leadership of high school Chinese language teachers in the northeastern region of teachers It can be used to plan for self-development and educational personnel according to their priorities, for example:

(1) Become a change leader, Teachers have a systematic operational plan to foresee the goals. who want to be flexible, adapt according to the situation, Observe, and anticipate problems in advance. as well as find solutions to problems in the future efficiently.

(2) Self-development, Teachers develop development plans for future goals. Have the knowledge and academic skills, to be Leadership, lead the change, be a professional teacher, be creative, think outside the box, and study research to create innovations in teaching and learning.

(3) To be a teaching role model, Teachers create an atmosphere of freedom in doing things that will make the children develop their individuality, dare to think, dare to express themselves, have self-confidence, dare to take initiative, have creative ideas, have leadership, and dare to learn new things. Teachers create an atmosphere of good relationships between teachers and students.

(4) Participation in the development, Teachers have clear goals. jointly plan the development of learning, teaching curriculum to be comparable to international standards, forward to academic excellence, able to communicate in more than 2 languages, produce creative work and use effective communication for aligned understanding.

7.2 Suggestions for Further Research

(1) Conduct research and development on the leadership of Chinese teachers to develop management and teaching models.

(2) Study the main factors influencing the leadership of Chinese teachers at other levels.

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