

# THE SITUATION OF DEVELOPING TEACHER LEADERSHIP IN THE 21ST CENTURY FOR ORDINARY HIGH SCHOOLS IN CHONGZUO CITY, PEOPLE'S REPUBLIC OF CHINA

Meiqiu HUANG<sup>1</sup>, Siranee CHUTOPAMA<sup>2</sup> and Narumon SAKPAKORNKAN<sup>2</sup>

1 Student in Educational Administration, Buriram Rajabhat University, Buriram, Thailand; meiqiu.hua@bru.ac.th

2 Faculty of Education, Buriram Rajabhat University, Buriram, Thailand; siranee.ch@bru.ac.th (S. C.); narumon.sp@bru.ac.th (N. S.)

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## ABSTRACT

This study investigates the current situation of developing teacher leadership in the 21st century for ordinary high schools in Chongzuo City, People's Republic of China. The sample included 351 teachers from 22 ordinary high schools. Data were collected through a questionnaire, which consisted of two parts: the first part was to study the basic information of the respondents; the second part used a 5-level rating scale to investigate the teacher leadership in the 21st century for ordinary high schools in Chongzuo City. The results showed that the Cronbach's Alpha Coefficient of the questionnaire was 0.923, and Item Objective Congruence was between 0.60 and 1.00. Statistical analysis involved mean and standard deviation. The overall level of teacher leadership was at a high level. Through the analysis of each aspect, it was found that the average level of "promotion of data utilization for educational improvement and development" was the highest, followed by "access to and utilization of research in teaching and learning," and "collaboration with parents and the community."

**Keywords:** Ordinary High Schools, Teacher Leadership, Leadership

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## INTRODUCTION

As educational systems continue to evolve, the role of high school teachers extends beyond classroom instruction; it increasingly involves actively leading in professional learning, instructional innovation, and community collaboration. Strengthening teacher leadership not only fosters teachers' professional growth but also has a profound impact on students' learning outcomes and the overall quality of education in schools (Qian & Hong, 2022). By promoting a culture of collaboration and creating a positive team environment, teachers can drive instructional improvement and foster the collective development of the teaching community. Such a culture of collaboration encompasses not only cooperation among teachers but also interaction and support from parents and the community (Rui et al., 2024).

In the modern educational environment, teachers' ability to access and apply educational research has become crucial. By integrating research with teaching practices, teachers can continuously optimize their instructional strategies and enhance classroom effectiveness. Additionally, data analysis plays an increasingly vital role in educational decision-making. By employing data analysis, teachers can more precisely identify students' needs and learning progress, providing scientific support for educational improvement and development (Mengfei & Siyuan, 2024). This not only enhances the effectiveness of instruction but also advances school management systems.

In supporting teachers' academic and professional growth, teacher leadership fosters professional learning and continuous development, further enhancing teachers' instructional abilities. These learning opportunities and resources not only motivate teachers' self-improvement but also support the school's learning management processes (Zhihao & Qingfu, 2019). As educational leaders, teachers not only guide students but also serve as positive role models within the team and the community. By effectively collaborating with parents and the community, teachers are better able to support students' holistic development, laying a solid foundation for their future academic and career paths (Chonghan & Jun, 2021).

Thus, exploring the development of teacher leadership in these areas is of great significance for enhancing school quality, promoting teachers' professional growth, and advancing students' comprehensive development. Effective teacher leadership not only creates a harmonious and progressive educational environment but also provides essential support for sustainable instructional improvement in schools. This study will focus on the role of high school teacher leadership in promoting collaboration, supporting professional development, and improving educational management, aiming to provide theoretical support and empirical evidence for educational management practices.

## LITERATURE REVIEWS

### **Personal Competence and Self-Leadership**

The foundation of teacher leadership lies in teachers' professional competence and self-leadership, including emotional management, continuous learning, and reflective practice. Goleman (1995) proposed the theory of emotional intelligence, highlighting that a high level of emotional intelligence is crucial for effective leadership. Schön (1983) emphasized the importance of reflective practice, which enables teachers to continuously improve and adapt in dynamic educational environments.

### **Interpersonal Influence and Team Collaboration**

Katzenbach & Smith (1993), in their team collaboration theory, pointed out that effective teams require clear goals and deep collaboration, which provides theoretical support for team collaboration in teacher leadership. Additionally, Harris (2003) highlighted the importance of a collaborative culture in schools, asserting that teacher collaboration can significantly enhance overall school performance and innovation.

### **Promoting Professional Learning and Teacher Development**

DuFour & Eaker (1998) proposed the theory of Professional Learning Communities (PLCs), which emphasizes the importance of collaborative learning and knowledge sharing among teachers for improving professional competencies. Furthermore, Frost & Durrant (2002) found that informal leadership, such as mutual learning among teachers, plays a key role in driving school development.

### **Decision-Making Ability and Systemic Thinking**

Senge (1990), in “The Fifth Discipline”, regarded systemic thinking as an essential component of leadership, emphasizing that leaders must view problems from a holistic perspective. Bass (1985), in his transformational leadership theory, highlighted that leaders motivate and guide team members to achieve common goals, serving as a critical model for decision-making and management in schools.

### **Ethical Leadership and Cultural Development**

Ethical leadership is a vital dimension of teacher leadership. Shapiro & Stefkovich (2001), in their ethical leadership model, stressed the ethical responsibilities of leaders in education. Similarly, Yueqiang & Yongxin (2011) defined teacher leadership as a comprehensive capability that encompasses moral cultivation and cultural development, enriching the connotation of teacher leadership.

### **Home-School Collaboration and Community Engagement**

Home-school collaboration and community engagement provide support for students' holistic development. Fullan (1991), in his theory of educational change, emphasized that effective collaboration between educational institutions and communities can drive educational transformation.

In summary, teacher leadership is a multidimensional concept based on various theoretical perspectives. It encompasses personal competence and self-leadership, emphasizing the importance of emotional intelligence and reflective practice in continuous growth. Interpersonal influence and team collaboration are core components, supported by team effectiveness theory and collaborative school culture theory. Promoting professional learning is critical, as reflected in Professional Learning Communities and informal leadership models. Decision-making ability and systemic thinking play a crucial role in teacher leadership. Ethical leadership emphasizes ethical responsibilities in education and cultural development. Home-school collaboration and community engagement highlight the significance of partnerships in fostering students' holistic development and driving educational transformation. These dimensions collectively demonstrate the dynamic and profound impact of teacher leadership in education.

Through a review of previous studies, we found that while research on the framework of teacher leadership has made certain progress, most studies remain confined to exploring the framework itself. However, the “Teacher Leader Model Standards” proposed by the Teacher Leadership Exploratory Consortium (2010) take a fresh perspective, breaking through the limitations of earlier research. These standards state that “The Teacher Leader Model Standards identify seven domains central to teacher leadership: fostering collaboration, integrating research into practice, advancing professional learning, improving instruction, utilizing assessments for improvement, engaging families and communities, and advocating for student learning and professional growth.” This new perspective offers valuable ideas and methods for further in-depth research on teacher leadership in the 21st century in Chongzuo City. Therefore, this study will focus on exploring this theoretical viewpoint.

### **Objective**

To study the current situation of developing teacher leadership in the 21st century for ordinary high schools in Chongzuo City, People’s Republic of China.

## RESEARCH METHODOLOGY

### 1) Population and Sample

Population: The population consists of 3,739 teachers from 22 ordinary high schools in Chongzuo City.

Sample: The sample size used in the study was determined from the ready-made table by Krejcie & Morgan (1970). The sample size was 351 teachers. For details, see Table 1

**Table 1** Number of Population and Sample of Teachers in Ordinary High Schools Across 22 Schools in Chongzuo City

School Name	Population	Sample
Chongzuo High School	183	18
Guangxi Nationalities Normal University Affiliated High School	317	31
Chongzuo Qingniao Beifu Experimental School	260	24
Guangxi University Affiliated High School, Chongzuo	266	25
Huada High School, Chongzuo	109	10
Jiangzhou High School	183	17
Pingxiang High School	116	11
Fusui High School	303	28
Fusui No. 2 High School	258	24
Fusui No. 3 High School	60	6
Chongqingyuan High School, Chongzuo	131	12
Lezhixinxuedao High School, Chongzuo	45	4
Longzhou High School	187	18
Tiandeng High School	228	21
Tiandeng Ethnic High School	94	9
Hailiang Tiandeng High School, Chongzuo	168	16
Ningming High School	175	16
Ningming No. 2 High School	149	14
Feihong High School, Chongzuo	89	8
Jingshi Foreign Language School, Ningming	67	6
Daxin High School	188	18
Daxin Ethnic High School	163	15
<b>Total</b>	<b>3,739</b>	<b>351</b>

### 2) Research Tools

The research tool was a questionnaire survey, which was divided into two parts.

Part 1: General information of the respondents, data collected through a checklist questionnaire.

Part 2: To study the current situation of teacher leadership in the 21st century for ordinary high schools in Chongzuo City, five-level scale questionnaires were used to collect data. Cronbach Alpha test and item objective congruence index (IOC) were used to test the reliability of the questionnaire. The results showed that the Cronbach  $\alpha$  coefficient of the questionnaire was 0.923, indicating high internal consistency, and the item objective congruence index was 0.60-1.00. Therefore, it is considered a reliable tool.

### 3) Data Analysis

According to the mean and standard deviation analysis (Boonchom, 2002), and the classification of the data as presented, the average is defined as follows:

4.51-5.00 Teacher leadership is at the highest level

3.51-4.50 Teacher leadership is at a high level

2.51-3.50 Teacher leadership is at an appropriate level

1.51-2.50 Teacher leadership is at a low level  
 1.00-1.50 Teacher leadership is at the lowest level

## RESEARCH RESULTS

According to the opinions of teachers, the current situation of teacher leadership in the 21st century for ordinary high schools in Chongzuo City, People's Republic of China, was studied. For details, see Table 2 to Table 9.

**Table 2** Mean and Standard Deviation of Teacher Leadership Status in the 21st Century for Ordinary High Schools in Chongzuo City, People's Republic of China, Overall and by Aspect

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
1) Promoting a culture of collaboration	3.62	0.83	High	4
2) Accessing and utilizing research in teaching and learning	3.64	0.84	High	2
3) Promoting professional teacher learning	3.60	0.79	High	5
4) Facilitating the learning management process	3.56	0.75	High	7
5) Promoting the use of data analysis for educational improvement and development	3.68	0.77	High	1
6) Working with parents and the community	3.64	0.82	High	2
7) Supporting academic and professional learning	3.59	0.83	High	6
<b>Average</b>	3.62	0.80	High	

According to Table 2, it was found that the overall status of teacher leadership in the 21st century for ordinary high schools in Chongzuo City is at a high level ( $\bar{X} = 3.62$ ). When considering specific dimensions, the highest average is in promoting the use of data for educational improvement and development ( $\bar{X} = 3.68$ ), followed by access to and utilization of research in teaching and collaboration with parents and communities ( $\bar{X} = 3.64$ ). The dimension with the lowest average is facilitating the learning management process ( $\bar{X} = 3.56$ ).

**Table 3** Mean and Standard Deviation of Teacher Leadership Status in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Promoting a Culture of Participation, Overall and by Specific Items

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
1) There is an awareness of the role of promoting a culture of collaboration that affects the success of educational reform.	3.57	0.88	High	8
2) The capacity of teachers is enhanced in an environment that effectively promotes a culture of collaboration.	3.65	0.84	High	3
3) Teachers improve their teaching through the promotion of a culture of collaboration to enhance the quality of education.	3.64	0.82	High	4
4) Promoting a culture of collaboration provides opportunities for teachers to learn.	3.58	0.82	High	7
5) School leaders play a crucial role in creating and promoting a collaborative culture within the school.	3.68	0.81	High	1
6) A culture of collaboration helps promote the sharing of knowledge, problem-solving, and best practices among teachers.	3.66	0.83	High	2

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
7) Promoting a culture of collaboration is an effective strategy for improving student learning outcomes.	3.62	0.82	High	5
8) Promoting a culture of collaboration is an important factor in improving the overall quality of education and the professional development of teachers.	3.60	0.80	High	6
<b>Average</b>	3.62	0.83	High	

According to Table 3, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City regarding the promotion of a culture of collaboration is at a high level overall ( $\bar{X} = 3.62$ ). When considering specific items, the highest average is found in Item 5: "School leaders play an important role in creating and promoting a collaborative culture within the school" ( $\bar{X} = 3.68$ ), followed by Item 6: "A culture of collaboration helps promote the sharing of knowledge, problem-solving, and good practices among teachers" ( $\bar{X} = 3.66$ ). The item with the lowest average is Item 1: "Awareness of the role of promoting a collaborative culture, which affects the success of educational reform" ( $\bar{X} = 3.57$ ).

**Table 4** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Accessing and Using Research in Teaching, Both Overall and by Specific Items.

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
9) Can access the internet, multimedia resources, databases, and effectively use technology in learning.	3.57	0.89	High	8
10) Can use computers and multimedia technology in teaching research.	3.66	0.85	High	6
11) Is aware of the importance of teaching research in educational disciplines.	3.53	0.89	High	9
12) Can use teaching resources effectively.	3.58	0.86	High	7
13) Has an understanding and flexibility in adapting teaching methods to enhance student learning.	3.67	0.83	High	4
14) Can solve problems related to using resources, teaching research, and managing the learning environment effectively.	3.68	0.79	High	3
15) Can effectively use good examples as teaching resources.	3.70	0.78	High	2
16) Uses teaching research to help students gain understanding, knowledge, and skills.	3.72	0.86	High	1
17) Applies the results of teaching research to improve content and teaching methods.	3.67	0.77	High	4
<b>Average</b>	3.64	0.84	High	

According to Table 4, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City regarding the access to and use of research in teaching is at a high level overall ( $\bar{X} = 3.64$ ). When considering specific items, the highest average is found in Item 16: "The use of teaching research to help students understand and gain knowledge and skills" ( $\bar{X} = 3.72$ ), followed by Item 15: "The ability to use good examples as effective

teaching resources" ( $\bar{X} = 3.70$ ). The item with the lowest average is Item 11: "Awareness of the importance of teaching research in educational disciplines" ( $\bar{X} = 3.53$ ).

**Table 5** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Promoting Professional Teacher Learning, Both Overall and by Specific Items.

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
18) Has knowledge and understanding of the core elements of teacher professional standards.	3.63	0.78	High	4
19) Can apply international standards to create teacher standards that reflect the unique characteristics of each region.	3.64	0.82	High	3
20) There is a classification of teacher professional standards to reflect the differences across regions.	3.51	0.89	High	10
21) Understands and is not opposed to the development of every student.	3.56	0.77	High	8
22) Uses teacher professional standards as the main criterion for evaluating the quality of teaching.	3.68	0.71	High	1
23) Promotes lifelong learning skills according to teacher professional standards and collaborative work.	3.62	0.78	High	6
24) Possesses knowledge, professional skills, and ethics according to teacher professional standards.	3.65	0.74	High	2
25) Develops and improves teacher professional standards with a focus on teachers' knowledge, skills, and characteristics.	3.63	0.80	High	4
26) Uses the certification of teacher professional standards to enhance the quality of education.	3.60	0.76	High	7
27) Can use teacher professional standards as both a theoretical and practical framework for educational reform and improvement.	3.52	0.86	High	9
<b>Average</b>	3.60	0.79	High	

According to Table 5, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City regarding the promotion of professional teacher learning is at a high level overall ( $\bar{X} = 3.60$ ). When considering specific items, the highest average is found in Item 22: "The use of teacher professional standards as the main criteria for evaluating teaching quality" ( $\bar{X} = 3.68$ ), followed by Item 24: "Possession of knowledge, professional skills, and ethics according to teacher professional standards" ( $\bar{X} = 3.65$ ). The item with the lowest average is Item 20: "The establishment of differentiated professional standards to reflect regional differences" ( $\bar{X} = 3.51$ ).

**Table 6** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Facilitating Learning Management, Both Overall and by Specific Items

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
28) Organizes integrated teaching and plans management according to academic principles.	3.60	0.77	High	1
29) Can enhance student engagement through integrated teaching management.	3.53	0.76	High	6
30) Can manage teaching to handle complex situations.	3.58	0.72	High	3
31) Integrated teaching management plays a role in improving teaching effectiveness, ensuring teaching quality, and promoting educational progress.	3.51	0.71	High	7
32) Manages the teaching process according to students' interests.	3.59	0.73	High	2
33) Facilitates collaborative teaching management between teachers, students, and content to increase motivation and enhance teaching quality.	3.56	0.75	High	5
34) Manages learning and reflects on learning outcomes after teaching.	3.57	0.70	High	4
35) Effectively manages collaborative learning between instructors and students.	3.51	0.88	High	7
<b>Average</b>	3.56	0.75	High	

According to table 6, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City regarding facilitating the learning process is at a high level overall ( $\bar{X} = 3.56$ ). When considering specific items, the highest average is found in Item 28: "The implementation of integrated teaching management and planning according to academic principles" ( $\bar{X} = 3.60$ ), followed by Item 32: "The management of the teaching process according to the interests of the learners" ( $\bar{X} = 3.59$ ). The items with the lowest averages are Item 31: "Integrated teaching management plays a role in enhancing teaching effectiveness, ensuring teaching quality, and promoting educational advancement" and Item 35: "Effective management of learning focused on cooperation between teachers and learners" ( $\bar{X} = 3.51$ ).

**Table 7** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Promoting the Use of Data Analysis for Educational Improvement and Development, Both Overall and by Specific Items

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
36) The use of data to drive educational change is highly effective.	3.70	0.78	High	4
37) There is sufficient knowledge of data for teaching purposes.	3.68	0.78	High	7
38) Data is used and improved to enhance students' learning efficiency.	3.63	0.80	High	9
39) Complex data is used to develop teaching strategies and standards effectively.	3.62	0.77	High	11
40) The ability to use data to improve teaching and increase students' learning effectiveness.	3.74	0.75	High	1



Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
41) The school's organizational culture is critical and plays a significant role in promoting the use of data.	3.63	0.76	High	9
42) A culture, attitude, and values are created to apply data in teaching and learning.	3.70	0.76	High	4
43) The management of large, complex data to assess students' abilities is done effectively.	3.71	0.75	High	3
44) Data is used to reflect students' learning outcomes.	3.64	0.81	High	8
45) Data is used in decision-making to promote educational development.	3.72	0.76	High	2
46) Methods of using and integrating data to improve teaching and student learning outcomes.	3.69	0.80	High	6
<b>Average</b>	<b>3.68</b>	<b>0.77</b>	<b>High</b>	

According to table 7, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City, regarding the promotion of using data for educational improvement and development, is at a high level overall ( $\bar{X} = 3.68$ ). When considering individual items, the highest average is found in Item 40: "The ability to use data to improve teaching and enhance student learning effectiveness" ( $\bar{X} = 3.74$ ), followed by Item 45: "The use of data to make decisions that promote educational development" ( $\bar{X} = 3.72$ ). The item with the lowest average is Item 39: "The use of complex data to develop strategies and standards" ( $\bar{X} = 3.62$ ).

**Table 8** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Collaboration with Parents and the Community, Both Overall and by Specific Items

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
47) There is cooperation between the school, parents, and the community to enhance the effectiveness of basic education.	3.66	0.79	High	6
48) The cooperation mechanism between the school, parents, and the community plays an important role in creating a high-quality working system.	3.56	0.87	High	9
49) A system of collaboration between parents and the community has been established to enhance the quality of education and comprehensively develop the quality of students.	3.60	0.86	High	8
50) The active participation of parents and the community helps the school achieve its educational goals more effectively.	3.68	0.79	High	2
51) The establishment of a collaboration system between the school, parents, and the community helps broaden students' perspectives and instill correct values.	3.67	0.84	High	5
52) There is good communication interaction between the school, parents, and the community.	3.61	0.84	High	7

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
53) The cooperation between the school, parents, and the community helps develop and improve students' abilities and qualities for success.	3.68	0.78	High	2
54) The involvement of parents and the community helps improve curriculum planning and enhances the effectiveness of student learning.	3.73	0.79	High	1
55) Cooperation between parents and the community helps improve and develop school regulations, activities, and services to meet the needs of parents and students.	3.68	0.79	High	2
<b>Average</b>	3.64	0.82	High	

According to table 8, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City, regarding collaboration with parents and communities, is at a high level overall ( $\bar{X} = 3.65$ ). When considering individual items, the highest average is found in Item 54: "The involvement of parents and the community helps improve the curriculum and enhances student learning effectiveness" ( $\bar{X} = 3.73$ ), followed by Item 50: "The active participation of parents and the community helps the school achieve its educational goals more effectively," Item 53: "Collaboration between the school, parents, and the community helps develop and enhance the abilities and qualities of students for success," and Item 55: "Collaboration between parents and the community helps improve and develop the school's rules, activities, and services to meet the needs of parents and students" ( $\bar{X} = 3.68$ ). The item with the lowest average is Item 48: "The mechanism of collaboration between the school, parents, and the community plays an important role in creating a quality working system" ( $\bar{X} = 3.56$ ).

**Table 9** Mean and Standard Deviation of Teacher Leadership in the 21st Century for Ordinary High Schools in Chongzuo City, Focusing on Supporting Academic and Professional Learning, Both Overall and by Specific Items

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
56) You are aware of the importance of your own continuous learning.	3.63	0.79	High	5
57) You actively participate in various training activities organized by the school.	3.51	0.90	High	11
58) The school provides opportunities for professional learning exchange and teacher training.	3.68	0.76	High	1
59) You are able to reflect on your teaching performance and adjust your academic perspectives.	3.53	0.89	High	10
60) The school has developed assessment methods that align with academic and professional work.	3.66	0.74	High	2
61) The school has established approaches to promote academic and professional learning.	3.64	0.84	High	4
62) You are able to use online platforms for academic and professional learning.	3.55	0.89	High	9
63) You are able to apply innovative teaching methods to design and improve classroom activities.	3.65	0.82	High	3
64) You are able to experiment with the latest multimedia technologies to enhance the learning experience for students.	3.60	0.76	High	7

Teacher Leadership	$\bar{X}$	S.D.	Interpretation	Rank
65) You participate regularly in academic and professional training programs.	3.50	0.87	High	12
66) You are able to use multimedia technology resources to support academic and professional learning.	3.62	0.84	High	6
67) You are able to adjust your teaching methods through academic and professional learning to enhance student learning.	3.56	0.90	High	8
<b>Average</b>	3.59	0.83	High	

According to table 9, it was found that the teacher leadership status in the 21st century for ordinary high schools in Chongzuo City, regarding supporting academic and professional learning, is at a high level overall ( $\bar{X} = 3.59$ ). When considering individual items, the highest average is found in Item 58: "The school provides opportunities for training and professional learning exchange for teachers" ( $\bar{X} = 3.68$ ), followed by Item 60: "The school has developed assessment methods that align with academic and professional work" ( $\bar{X} = 3.66$ ). The item with the lowest average is Item 65: "There is consistent participation in academic and professional training" ( $\bar{X} = 3.50$ ).

## DISCUSSION & CONCLUSION

Through the research on the current situation of developing teacher leadership in the 21st century for ordinary high schools in Chongzuo City, People's Republic of China, it is found that the overall level of teacher leadership is relatively high. Analysis of each aspect reveals that the average level of "Promoting the Use of Data Analysis for Educational Improvement and Development" is the highest, followed by "Accessing and Utilizing Research in Teaching and Learning" and "Working with Parents and the Community."

The elements of teacher leadership in the 21st century for ordinary high schools in Chongzuo City, People's Republic of China, include: 1) Promoting a Collaborative Culture: Establishes a cooperative educational culture that enhances teacher collaboration, supports instructional improvements, and raises educational quality. It emphasizes knowledge sharing, problem-solving, and innovative practices, which drive both student achievement and teacher development. 2) Utilizing Educational Research: Encourages teachers to leverage educational research to improve learning outcomes. This involves adapting teaching methods to meet diverse student needs and using research to inform flexible, effective teaching practices. 3) Supporting Professional Teacher Development: Focuses on fostering teacher standards in knowledge, skills, and attributes. It includes adapting international standards locally, establishing tiered evaluation systems, and ensuring a structured development path for teachers, which promotes lifelong learning and professional collaboration. 4) Managing the Learning Process: Emphasizes effective management of teachers, students, and curriculum through scientific methods, increasing motivation, and addressing complex teaching situations. This approach supports teaching quality and advances educational outcomes through collaborative and well-organized management strategies. 5) Applying Data Analysis for Improvement: Involves using data-driven insights to refine teaching activities, foster personalized student development, and enhance learning outcomes. It highlights the role of a data-informed culture in educational settings, supporting educators in adapting and improving instructional practices based on comprehensive data analysis. 6) Engaging with Parents and Community: Develops systems for collaboration with parents and the community, enhancing educational quality and supporting well-rounded student development. This aligns with modern educational concepts focusing on holistic, multi-dimensional learning experiences. 7) Encouraging Academic and

Professional Learning: Schools provide resources and professional learning opportunities that enable teachers to grow academically and professionally, strengthening their instructional effectiveness. These findings are consistent with the Teacher Leadership Exploratory Consortium (2010), reinforcing the relevance of these domains in understanding teacher leadership.

This study found that the average level of "Applying Data Analysis for Improvement" was the highest among all dimensions. The development of internet technology has enabled teachers to analyze data such as grades, attendance, and assignments, offering deeper insights into students' learning progress and challenges. This helps optimize teaching strategies effectively and efficiently. Ordinary high schools should manage and evaluate students' learning behavior data to enhance classroom teaching quality. These findings align with Jun et al. (2023), highlighting how China's examination system provides relatively fair opportunities for students from diverse backgrounds to achieve academic and career advancement through hard work.

However, this study has limitations. The reliance on quantitative data lacks the depth provided by qualitative methods such as interviews or classroom observations. Future research could adopt mixed-methods approaches to enrich and validate the findings.

Additionally, while focusing on Chongzuo City, comparisons with other regions, such as remote mountainous areas in Yunnan, Guizhou, and Sichuan, could reveal unique teacher leadership characteristics influenced by economic, cultural, and policy differences. Such comparative studies would provide a broader national and international perspective.

In conclusion, this study enhances the understanding of teacher leadership in Chongzuo's ordinary high schools, emphasizing collaboration, data utilization, and cultural integration as key components. These findings contribute to theoretical and practical research on teacher leadership in China, underscoring the need for future studies to explore the interplay of cultural, regional, and systemic factors in diverse educational contexts.

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