

**Perceptions and Its Influencing Factors of Teacher Leadership in Early Childhood
Education in China:
A Mixed-Methods Study in Xiamen City**

by

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Statement of Originality

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Abstract

Since 2010, developing teacher leadership has been one of the principal reform policies to promote high-quality early childhood education in China. The purpose of this study was to explore various school stakeholders' perceptions of teacher leadership and identify its influencing factors in preschools in China. Consequently, this study aimed to answer the following research questions: (1) How is teacher leadership perceived by various school stakeholders in preschools in China? (2) Are there differences in the perceptions of various school stakeholders on teacher leadership? (3) What are the factors that influence teacher leadership as perceived by various school stakeholders?

This study used a mixed-methods sequential exploratory design. Accordingly, in Phase One, the qualitative study was to explore the research question 1. Data were collected using semi-structured interviews with 21 research participants. Three themes of teacher leadership emerged from the qualitative content analysis: school-level leadership, peer-level leadership, and building relationships with parents. The findings of the qualitative study were used to develop the Teacher Leadership Scale, which consisted of three constructs: staff management and development, peer learning and support, and communication with parents. The three factors that influence teacher leadership were identified as Power Distance, School Culture, and Authority Openness.

In Phase Two, the quantitative study was conducted to examine research question 2 and 3. The Teacher Leadership Scale for examining research question 2 was delivered to 918 samples and used to test the Hypotheses which were generated from the literature review. Analytical strategies for testing Hypotheses included independent-samples T test and one-way analysis of variance. The three existing scales—Power Distance, School Culture Scale, and Authority Openness—were used to examine their relationships with teacher leadership (research question

3). Analytical strategies in this step included correlation matrix and structural equation model.

The results showed that (1) Power Distance had a significantly positive influence on staff management and development but a negative influence on communication with parents; (2) School Culture had a significantly positive influence on peer learning and support; and (3) Authority Openness had a significantly positive influence on staff management and development, peer learning and support, and communication with parents.

The research findings and results for each research question were discussed by connecting them with a global discourse of teacher leadership. The limitations of this study have been highlighted. Based on the findings and results of this study, some implications were raised for education policy, school leadership, and teachers' leadership development.

Keywords: Authority Openness; Chinese Culture; Early Childhood Education; Power Distance; School Culture; Teacher Leadership

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Chapter 1 Introduction

Research on the quality of early childhood education (ECE) has demonstrated that ensuring high-quality education leads to better child outcomes (Tout et al., 2010; Zellman et al., 2008). This includes the acquisition of pre-literacy skills (Sabol & Pianta, 2015) and improved socio-emotionality (Thornburg et al., 2009), academic performance, language skills, and classroom behavior (Zellman et al., 2008). Although ECE is not compulsory in China, since 2010 the Chinese central government has introduced several waves of policies (e.g., *Preschool Teachers' Professional Standards*, *Preschool Job Directive Rules*; for more details, see Section 1.2.1) to promote the quality development of ECE. In 2015, 75% of three to six year old children attended preschools that offer full-day early childhood programs. According to the government document entitled *Preschool Job Directive Rules*, preschools are early childhood institutes that provide education and care services for children aged three to six years. Preschools can be classified as full-day, part-day, just-in-day, season-day, and boarding schools. In this study, preschool refers to full-time schools that provide education and care services for children from three to six years old.

In this Chapter, I will situate teacher leadership in a global context to indicate the importance of promoting quality education in schools. Teacher leadership in ECE in the Chinese context will also be introduced, including educational reform policies, Chinese culture, leadership in ECE, and the current situation of ECE development. In doing so, the vital importance of researching teacher leadership in China will be highlighted.

1.1 Why Teacher Leadership

In recent years, discussions regarding the connection of leadership and quality education in

ECE have gained momentum in the West because leadership is considered to be a key element for quality ECE (Sims, Forrest, Semann, & Slattery, 2015). Sims et al. (2015) point out that leadership is a key factor that influences quality improvement in ECE. As a form of leadership, teacher leadership which can promote teachers' professional development, has received considerable academic attention (Chow, 2016; Frost, 2012; Hallet, 2013; Hobson & Moss, 2010; Muijs & Harris, 2006; Poekert, 2012). Teacher leadership is considered to play an important role in the transformation of teaching and learning. It can also serve as a vehicle to connect key stakeholders to work together for the development of a community of learners (Hobson & Moss, 2010). It provides the means for open communications, trust and rapport, continuous inquiry and improvement of work (Childs-Bowen, Moller, & Scrivner, 2000). Indeed, critical contemporary agendas such as quality, accountability and improved professionalism in ECE are advised to explore the important leadership role of teachers (Hallet, 2013; Stamopoulos, 2012). Globally, teacher leadership practice is a key factor in determining the quality of schools and its use has been recommended by education reform policies in Western developed countries, such as the United States (Frost, 2012), Australia (Colmer, Waniganayake, & Field, 2014; Heikka, Waniganayake, & Hujala, 2013; Krieg, Davis, & Smith, 2014; Sims et al., 2015; Thornton & Cherrington, 2014), Norway (Bøe & Hognestad, 2017), Finland (Heikka & Hujala, 2013; Heikka, Halttunen, & Waniganayake, 2016) and it has also been used in Asia-Pacific regions, such as Singapore (Hairon, Goh, & Chua, 2015), Taiwan (Pan & Chen, 2011) and Hong Kong (Ho & Tikly, 2012; Li, 2015b).

Teacher leadership has promoted quality education in the West because it brings benefits for the development of personal-level, group-level, school-level, and district-level policy.

For personal-level development, teacher leadership is not only regarded as a way to create career opportunities for teachers—leading to higher levels of job satisfaction and teacher

retention (Muijs & Harris, 2007)—but also as a way to promote continuing professional development (Hobson & Moss, 2010; Olujuwon & Perumal, 2015) and to shift the teaching profession from a passive routine to an exciting endeavor for the teachers (Nudrat & Akhtar, 2014). Recently, studies on school development have begun to focus on teacher leadership through the strengthening of the teachers' continuous professional development (Demir, 2015) because professional development can build the teachers' capacity in leading their colleagues (Poekert, 2012).

For group-level development, the practices of teacher leadership can enhance peace in the school community (Olujuwon & Perumal, 2015). Hairon, Goh, and Chua (2015) have found that teacher leadership supports professional learning community conversations in three ways: building collegial and collaborative relations, promoting teacher learning and development, and enabling change in teachers' teaching practices.

For school-level development, teacher leadership is seen as a catalyst for dealing with the increased complexity of schools (Muijs & Harris, 2007) because it empowers teachers to be able to make changes in the school system (Glickman, 2002; Hatch, Eiler White, & Faigenbaum, 2005). Teacher leadership can also lessen the burden of school leaders by shifting the school leaders' focus from managerial leadership to instructional leadership (Nappi, 2014).

For district-level policy development, teacher leaders can influence policy through their expertise and evidence-based practice (Hatch, Eiler White, & Faigenbaum, 2005). They can interpret, adapt, or transform policy messages as they put them in place in a process that is influenced by the social and structural conditions of the teachers' workplaces (Coburn, 2005). Ball, Maguire and Braun (2012) see teachers as policy agents in the process of policy enactment. From their perspective, teachers engage with shaping and reshaping policy into

practice. Accordingly, teacher leadership could be seen as a policy enactment where district reform policies are transformed and reshaped by the teaching profession.

In general, according to the Western literature, teacher leadership has played an important role in improving the quality of education. In the following sections, teacher leadership in the Chinese context will be introduced, which will be followed by the emerging research questions, and the importance of doing research on teacher leadership in ECE in China.

1.2 Research Context of This Study

This section introduces the recent educational reform policies for quality ECE development in China. While preschool teachers now are assumed to take leadership roles, the current situation of ECE development have influenced teacher leadership practices in preschools in China.

1.2.1 Educational Reform Policies

Educational reform policies form the context in which all ECE programs exist. Several scholars have pointed out that government regulation can significantly influence ECE quality (Rao & Li, 2009). Recently, one of the strategies to enhance the quality of ECE in China has focused on the professional development of preschool teachers. Since 2010, most local governments in China have initiated comprehensive education reforms to improve the quality of ECE, including establishing political authorities, increasing financial inputs and supporting teacher-training programs. Among these reforms, policies related to the teachers' professional development are widely considered to be the most decisive for promoting the quality of ECE. Specifically, developing teacher leadership is one of the key reform policies for promoting education quality. Here, I will outline the two current pieces of legislation for enhancing preschool teachers' professional development in China: *Preschool Teachers' Professional*

Standards, and Preschool Job Directive Rules.

The *Preschool Teachers' Professional Standards* that was issued by the Chinese Ministry of Education (MOE) in 2012, highlights four basic concepts for preschool teachers: a morality-first standard, a child-focused approach, an emphasis on teacher competence, and a pursuit of lifelong learning. Meanwhile, the most essential parts in the *Preschool Teachers' Professional Standards* are the three frames of essential contents (i.e., professional philosophy and ethics, professional knowledge, and professional competencies) and the 14 prescribed sub-contents. According to the *Preschool Teachers' Professional Standards*, the roles of preschool teachers fall into seven domains: (a) the establishment of a learning environment; (b) organization and caring for children; (c) support and guidance during play activities; (d) planning and implementation of education activities; (e) evaluation and motivation; (f) communication and collaboration; and (g) reflection and development.

The *Preschool Job Directive Rules* that was issued in 2016 highlights the roles of preschool teachers as follows: (a) providing and implementing an education work plan; (b) establishing the learning environment; (c) guiding and cooperating with childcare workers; (d) keeping in touch with parents; (e) participating in vocational study and research activities on care and education; and (f) evaluating the outcomes of child care and education.

This discussion shows that although preschool teachers in China are empowered to assume various leadership roles, they remain confined to classroom teaching. Research has indicated that teachers who assume leadership roles can encourage professionalism, curriculum innovation, student learning, and organizational capacity (Ngcobo & Tikly, 2010). It is imperative, therefore, to empower preschool teachers to take on leadership roles outside the classroom. To align with advocacy, the following subsections will discuss the potential factors resulting in preschool teachers assuming leadership roles within classrooms in China.

1.2.2 Early Childhood Education Development in China

As mentioned in Section 1.1, teacher leadership can lead to the teachers' higher levels of job satisfaction and teacher retention, and it can promote the teachers' professional development. This section will provide a background to the current ECE development in China, such as school size, preschool teachers' job satisfaction, and preschool teachers' professional development. It will also discuss how these factors have influenced teacher leadership practices in ECE.

China has the world's largest population. In 2016, there were a total of 44,138,630 preschool-aged children and 2,232,067 full-time teachers in preschools, showing that the teacher-child ratio was 1:20. The teacher-child ratio, which is the key indicator representing the school size, is considered to influence the practices of teacher leadership, such as teachers' work attitude (Lee & Loeb, 2000; Leithwood & Jantzi, 2009), and perceived leadership (Heck, 1993). For instance, a survey on the implementation of *Primary Class Size Reduction Policy* has shown that teachers have more opportunities to design creative lessons for students and more time to respond to their students' individual needs (Flessa, 2012). Ho, Lee and Teng (2016) find that teachers working at preschools with small staff size showed higher perceived organizational support (i.e., teacher participation in decision-making, school management support, and school performance) than those working at medium and large preschools. A large class size may make the teachers feel more stressed (Day et al., 1996; Tsai, Fung, & Chow, 2006) and can cause the teachers to be uninterested in making decisions about matters that they view as trivial (Smylie, 1992; Turnbull & Mee, 2003).

Teacher leadership can lead to a higher level of job satisfaction and improved teacher retention (Muijs & Harris, 2007). Job satisfaction refers to how content an individual is with his or her job (Spector, 1997). Hulin and Judge (2003) note that job satisfaction should

include multidimensional psychological responses (cognitive, affective and behavioral components) to an individual's job. Research has found that teachers with higher job satisfaction are more willing to participate in school decision-making (Smylie, 1992; Taylor, 1997). However, job satisfaction and teacher retention in preschools are currently pressing issues in China. In particular, Chinese preschool teachers have a low level of job satisfaction (Hu & Sang, 2013; Liu, 2013), mainly because of the unreasonably low salary (Zhao & Hu, 2008). For example, teachers working at private preschools have a salary that is even less than other unskilled workers, such as housekeepers and babysitters (Wang, Hong, & Pang, 2015; Wang, Yang, & Dong, 2016). This leads to a high attrition rate and wastage among preschool teachers in China. For example, in Beijing, one out of three teachers in private preschools resign each year (Feng, Tian, & Jiang, 2017). Given that teacher leadership is critical to teachers' job satisfaction and teacher retention, it is significant to explore the practices of teacher leadership in ECE in China to build and promote a sustainable and quality teaching force.

Teacher leadership has a close relationship with teachers' professional development (Chow, 2016; Frost, 2012; Hallet, 2013; Hobson & Moss, 2010; Muijs & Harris, 2006; Poekert, 2012). From a professional perspective, preschool teachers are experts who are able to develop professional knowledge and methods to work effectively with children aged between three and six years. The level of educational attainment has exerted a positive effect on teachers' participation in assuming leading roles for school development and change (Taylor, 1997). However, early childhood teachers in China have tended to be viewed as babysitters rather than as teachers or educators. Their professional identities are not recognized by society because of their low entry professional qualifications (Zhang & Yu, 2017). In terms of the educational level of front-line practitioners, statistics from MOE found that in 2016 only

21% of preschool principals and full-time teachers held a Bachelor's degree or above. This may lead preschool teachers to hold a poor self-image of themselves and their own professionalism (Ho, 2012; Zhang & Yu, 2017). Indeed, teachers in Chinese preschools often consider directly teaching children to be their primary role, including working with children, caring for them, educating them and responding to their needs. This perception is rooted in the fact that Chinese preschool teachers are followers who do not take responsibilities outside the classroom. Several previous studies have indicated that teachers who have strong professional identity and perceive themselves as being effective leaders have greater participation roles in decision-making, and *vice versa* (Ho, 2012; Taylor, 1997). Freidson (2001) also states that professionalism enables teachers to cultivate a sense of self-direction, independence and autonomy. It is imperative, therefore, for the public to recognize the professionalism of preschool teachers. Only when this happens, can they actively assume leadership roles in school development and improvement.

In summary, the practices of teacher leadership in ECE in China are shaped by the recent educational reform policies and by the teachers' professional development. Currently, developing teacher leadership has been one of the key reform policies to promote high-quality education in China (Wang & Ho, in press). Although teacher leadership is promoted and driven by reform policies, the current situation of ECE development have constrained teacher leadership practices. Therefore, it is essential to explore the practices of teacher leadership and its influencing factors in preschools in China. This will identify the culturally relevant strategies to promote preschool teachers' job satisfaction, teacher retention, and professional development.

1.3 Research Problems and Research Questions

Currently, there is little research on teacher leadership in ECE in China (Wang & Ho, in

press). The research literature that I have reviewed so far has indicated that teacher leadership can promote quality ECE, which is now advocated by the Chinese central government (see Section 1.2.1). Therefore, it is imperative to conduct research to reveal the practices of teacher leadership and its influencing factors in ECE in China. Consequently, the literature review of teacher leadership in ECE in China will focus on the perceptions held by various school stakeholders and it will ask what factors influence these perceptions. This has enabled the research questions to be formulated based on the literature review.

1.3.1 Research on Teacher Leadership in Early Childhood Education in China

As shown in Section 1.1, the research on teacher leadership has become prominent in the education reforms of Western countries. However, these Western experiences must be critically analyzed because they are culturally bound (Ho & Tikly, 2012; Tikly, 2011). Edlow (2008) has pointed out that the perceptions of the principals and staff members relating to leadership roles are important in influencing the development of teacher leadership. However, little research on teacher leadership has been conducted in ECE in China. Consequently, this study aims to explore the perceptions of teacher leadership held by various school stakeholders in preschools in China. Generally, the school stakeholders in preschools include principals, teachers, parents, and children. In this study, it specifically refers to preschool principals, middle-level leaders (e.g. vice-principals, key stage coordinator, senior teacher), and classroom teachers. The parents and children are not included as research participants in this study because teacher leadership is considered to be an activity beyond classroom teaching and the parents and children might not be aware of matters related to it. Young children only care about learning and play; they do not have much capacity to understand teacher leadership. Therefore, the first research question (*RQ*) in this study is as follows:

- *RQ1*: How is teacher leadership perceived by various school stakeholders (principals,

middle leaders, and teachers) in preschools in China?

1.3.2 Empirical Research on Perceptual Congruence

Perceptual congruence refers to the degree to which the principals' perceptions of teacher leadership align with that of other teachers' perceptions (Benlian, 2014). Although research on perceptions of teacher leadership has been discussed by many scholars (Avidov-Ungar et al., 2014; Gonzales & Lambert, 2014; Kiranh, 2013; Scribner & Bradley-Levine, 2010), little is known about the gap between principals' evaluations and teachers' evaluations. For example, the purpose of Beycioglu and Aslan's (2010) study is to develop a scale to examine teachers' and administrators' perceptions and expectations of teacher leadership behaviors, without doing perceptual congruence. Angelle and DeHart (2011) use the Teacher Leadership Inventory to assess teachers' perceptions of teacher leadership by examining differences in teaching experience, degree, and position. In general, there is still insufficient empirical research that discusses the perceptual congruence of teacher leadership. Because self-evaluations are inextricably tied to the individual's own experiences and biases, they typically entail a self-evaluation of the principals and also parallel evaluations from their subordinates through perceptual congruence (Goff, Goldring, & Bickman, 2014). Multiple perspectives can also create contrasts to motivate behavioral change (Hamilton & Bickman, 2008). Given the scarcity of research on perceptual congruence of teacher leadership, this study asks the following *RQ*:

- *RQ2*: Are there differences in the perceptions of various school stakeholders (principals, middle leaders, and teachers) on teacher leadership?

1.3.3 Factors that Influence Perceptions of Teacher Leadership

For the better promotion its teacher leadership practices in ECE in China, it is also important

to identify what factors and how these factors influence teacher leadership. From this perspective, power distance, school culture, and school principal are identified as the main factors that influence teacher leadership practices according to the existing research literature. These three factors will be discussed in more detail in Section 2.3.

China has a collectivist culture and communist environment, which suggests that in the development of its leadership, a form of distributed leadership is influenced by high power-distance and collectivism (Hallinger, Walker, & Bajunid, 2005). However, Ho and Tikly (2012) argue that the literature has failed to recognize the complexity of teacher leadership by not considering the social context of hierarchical, high power-distance and collectivist cultural norms. Therefore, it is important to explore how the factor of power distance influences various school stakeholders' perceptions of teacher leadership in ECE in China.

Harris (2003a) argued that a top-down management structure is a major impediment to the development of teacher leadership, reducing teacher autonomy and limiting teacher leadership roles in schools. In 1989, the Chinese central government introduced the policy on *Preschool Director's Responsibility (Yuan Zhang Fu Ze Zhi)*, which allows preschool directors to have more autonomy in school-based management. However, because Chinese culture is hierarchical, questions emerge regarding the degree to which preschool directors might delegate power and authority to their teachers. Therefore, implementing the *Preschool Director's Responsibility* might be a challenge to the development of teacher leadership in Chinese preschools.

The existing research has focused more on discussing the school principals' roles in promoting teacher leadership (Buttram & Farley-Ripple, 2016; Carpenter, 2015; Evans, 2014; Hallinger, Lee, & Ko, 2014; Horton & Martin, 2013; King, 2011). School principals are

considered to be supporters of teacher leadership because they can seek to build collaborative and inclusive school cultures (Moller, 2006). Moreover, they can provide opportunities for teachers to work in self-managed teams to improve instruction (Schmoker, 2005).

Because the research on the relationship between the influencing factors and teacher leadership in ECE in China is scarce, this study asks the following *RQ*:

- *RQ3*: What are the factors that influence teacher leadership as perceived by various school stakeholders (middle leaders and teachers)?

1.4 Significance of the Study

This study examines teacher leadership in preschools in China and it will make several contributions to development of policy, theory and practice, which will be outlined in the following subsections.

1.4.1 Significance for Policy Making

Research in the West has indicated that inadequate leadership may be attributable to poor educational reforms (Stamopoulos, 2012). As mentioned in Section 1.2.1, since 2010, the Chinese central government has paid considerable attention to promoting quality ECE. This study would make a significant contribution to the Chinese educational reform target of providing high-quality ECE because teacher leadership is considered to be a key factor in determining the quality of ECE (Hallet, 2013). However, the concept of teacher leadership has recently become prominent in the education reforms of Western countries. To address teacher leadership in promoting quality ECE, this study aims to explore the various school stakeholders' perceptions of teacher leadership and its influencing factors, which may provide evidence to inform the process of government policy-making, such as empowering teachers to play a leading role, and increasing non-tenured teachers' salary to promote their job

satisfaction (see Section 6.3.1).

This study will also direct the local governments' attention towards issuing teacher-training policies, such as training programs, related to teacher leadership. Many scholars have discovered that participating in training programs improves teacher leaders' leadership knowledge and skills (Grant, 2006; Jeffrey, 2015; Riveros et al., 2013; Wells, Maxfield, Klocko, & Feun, 2010), promotes an organizational climate (Eisenberg & Rafanello, 1998), and improves teaching quality, self-rated knowledge and competence (Bloom, 1992).

1.4.2 Significance for Theory Development

First, this study contributes to the theory development of teacher leadership in ECE. Early research has argued that there is lack of research on leadership in ECE (Muijs, Aubrey, Harris, & Briggs, 2004). In recent years, however, discussions regarding the connection of teacher leadership and ECE have gained momentum (Heikka, Waniganayake, & Hujala, 2013; Heikka & Hujala, 2013; Ho & Tikly, 2012; Sims et al., 2015; Sims & Waniganayake, 2015). For instance, Heikka and Hujala (2013) found that quality improvement and pedagogical leadership were seen as primary responsibilities in ECE leadership. Bøe and Hognestad (2015) discuss how formal teacher leaders at the middle management level direct and facilitate leadership practices. Nicholson and Kroll (2015) discuss how oral inquiry can be used to support early childhood professionals to develop their leadership capacity. This study will adopt a socio-cultural lens to focus on the various school stakeholders' perceptions and their influence on ECE in the Chinese context, which will contribute to the development of teacher leadership theory.

Additionally, this study makes contributions to situating teacher leadership theory in ECE in a Chinese hierarchical context. Although the amount of research on teacher leadership in ECE

is currently increasing, the model of leadership in ECE remains re-conceptualized (Sims et al., 2015; Stamopoulos, 2012) because it has been mainly discussed in the context of Western developed countries (Wang & Ho, in press). In particular, Walker and Ko (2011) argue that there is little relevant information on how teacher leadership emerges and is practiced in highly hierarchical societies in East Asia. Ho and Tikly (2012) also state that existing studies of teacher leadership could not fully take hierarchical, high power-distance, and collectivist cultural contexts into consideration. Although recent research on the relationship between teacher leadership and hierarchical contexts can be found in Turkey (Kilinc, 2014), Singapore (Hairon & Dimmock, 2012; Hairon et al., 2015; Poekert, 2012), Thailand (Hallinger, Liu, & Piyaman, 2017; Othman & Wanlabeh, 2012), and Vietnam (Tran, Hallinger, & Truong, 2018; Truong, Hallinger, & Sanga, 2017), there is little research on the relationship between teacher leadership and hierarchical contexts in China. Therefore, this study contributes to enriching the discourse of teacher leadership theory by situating it in a highly hierarchical society.

1.4.3 Significance for Practice Development

First, this study may help school principals to recognize their subordinates' leadership roles in promoting high-quality school education. School principals are expected to encourage their staff members to enact their potential leadership capability, rather than solely depending on the middle-level leaders, or even on themselves. The findings and results of this study can also help school principals to recognize the different approaches to promote teachers towards teacher leadership, such as building a positive school culture and identifying potential teacher leaders.

Second, this study calls for teacher-education institutions to establish leadership preparation for teacher leaders. Teachers who are aware of their strong teacher-leader potential is the first step on the ladder of teacher leadership (Hilty, 2011; Nudrat & Akhtar, 2014). Teachers who

view themselves as leaders can improvise teaching-learning practices, manage their classrooms effectively, and lead towards school improvement (Nudrat & Akhtar, 2014). Teacher-education institutions that provide leadership opportunities for students aspiring to become teachers and stimulate reflective practices and teacher growth have a major role to play in this development (Eargle, 2013; Nudrat & Akhtar, 2014). The prospective teacher leaders can lead an organization in their career field, become confident in their leadership abilities, and learn the importance of collaboration and communication (Bond & Sterrett, 2014). Moreover, the teacher leadership institutions will enable prospective teachers to learn many leadership skills, which is a core aspect of leadership (Campbell-Evans, Stamopoulos, & Maloney, 2014; Danielson, 2006; Hilty, 2011). Xu and Patmor (2012) describe three instructional strategies for nurturing prospective teachers' leadership skills in a teacher preparation program: by encouraging cross-domain and multiple perspective-taking, by enhancing ethical reasoning, and by engaging in analyzing real-life teacher leadership cases. Finally, this study will help teachers to make sense of their leadership roles in schools by recognizing the belief that "every person in school has potential capability to influence others." Teacher leadership reflects teacher agency (York-Barr & Duke, 2004), where teachers are empowered to lead development work (Harris & Lambert, 2003), to work with their principals, to build community, to support teachers, and to determine, implement, or make manifest a school-wide vision for instructional practice (Cranston, 2000; Margolis & Huggins, 2012). In Muijs and Harris's (2003) view, teacher leadership roles cannot easily be imposed by management, which suggests that teacher leaders become intrinsically motivated and see both the personal and professional benefits of taking up the role of teacher leadership. Teacher leaders also exert their influence through informal means to work side-by-side with their colleagues to build relationships and open lines of communication (Bauman, 2015;

Campbell, Lieberman, & Yashkina, 2015; Poekert, 2012; York-Barr & Duke, 2004). Once relationships are established, the teacher leaders have the ability to gain instructional improvement (Ackerman & Mackenzie, 2006). A related finding suggests that the teacher leaders believe they have agency to resist and fight back against an oppressive atmosphere (Farrley, 2015). Moreover, the extent to which teacher leaders are able to exercise a degree of agency is affected by how they position themselves and the schools' roles in this positioning (Fitzgerald & Gunter, 2008). Suggestions to shape teacher agency include social suggestions, power relations, teachers' professional and social positioning, and the imposed identity and social roles in the school contexts (Lai, Li, & Gong, 2016). Hence, the findings and results of this study will help the teacher leaders recognize what leadership behaviors they are competent in and which aspects remain to be improved.

1.5 Summary

This Chapter has discussed teacher leadership in the global context. It has shown that teacher leadership can promote quality education because of its benefits for the development of personal-level, group-level, school-level, and district-level policy. Teacher leadership in the Chinese context was then discussed, including educational reform policies for teacher leadership, Chinese culture, leadership in ECE, and current development of ECE. Based on this, the research problems and RQs were described. It was found that there is limited research on teacher leadership in ECE in China, insufficient empirical research on perceptual congruence, and unspecific factors that influence teacher leadership. Consequently, this study aims to answer the following *RQs*:

- *RQ1*: How is teacher leadership perceived by various school stakeholders in preschools in China?

- *RQ2*: Are there differences in the perceptions of various school stakeholders on teacher leadership?
- *RQ3*: What are the factors that influence teacher leadership as perceived by various school stakeholders?

To answer these *RQs*, this study will use a mixed-methods sequential exploratory design that combines qualitative study and quantitative study (Section 3.2). In particular, *RQ1* is examined by the qualitative study, whose findings will be used to examine *RQ2* and *RQ3* by conducting the quantitative study.

Chapter 2 Literature Review

A literature review of teacher leadership research will typically cover a vast number of studies, as evidenced by the work of York-Barr and Duke (2004), Poekert (2012), Wenner and Campbell (2017), and Supovitz (2018). In particular, York-Barr and Duke (2004) reviewed two decades of teacher leadership research (1980-2004), and concluded three main themes of teacher leadership: defining the dimensions of teacher leadership, the characteristics of teacher leaders, and the conditions to support teacher leadership. Poekert (2012) examined 52 studies of teacher leadership conducted from 2004 to 2012. He revealed that studies on teacher leadership mostly focus on the characteristics of the teacher leaders. Wenner and Campbell (2017) examined how teacher leadership is defined, how teacher leaders are prepared, the impact of teacher leadership, and those factors that facilitate or inhibit teacher leaders' work. More recently, Supovitz (2018) provided a comprehensive review of teacher leadership, in which he conceptualized three characteristics of teacher leadership: the practice of teacher leadership for instructional improvement, the development of teacher leadership capacity, and the creation of specific roles for teacher leaders. In this study, the literature was reviewed based on the *RQs* that are used (see Section 1.5) to provide the conceptual framework for them.

2.1 Conceptualization of Teacher Leadership

In this section, I will examine the literature on the concept of teacher leadership to provide a conceptual framework for *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools in China”.

There are two representative works that define teacher leadership: Katzenmeyer and Moller

(2001), and York-Barr and Duke (2004). Katzenmeyer and Moller (2001) define teacher leadership as teacher leaders who lead within and beyond the classroom, who identify with and contribute to a community of teacher learners and leaders, who influence others towards improved educational practice, and who accept responsibility for achieving outcomes. Obviously, this concept is related to the teacher leaders' role. Similar to this definition, Grant (2005) argues that teacher leadership refers to teachers taking up informal and formal leader roles in the classroom and beyond, into areas of whole-school development and community involvement. From a conceptualization that is derived from an empirical literature review on teacher leadership, York-Barr and Duke (2004) suggest that teacher leadership is the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement. A similar definition is offered by Harris and Muijis (2004), who define teacher leadership as teachers' capacity to contribute to a community of teacher learners and to influence others towards improved educational practice. These definitions are consistent with Johansson-Fua's (2004) argument of the associated dimensions of the "nature of influence" and the "nature of relationships" (p. 10). The nature of influence is characterized by the leaders' use of power and authority, whereas the nature of relationships is defined as either "horizontal" or "hierarchical" (Johansson-Fua, 2004, p. 10). According to Yukl (1994), power is described as "an agent's potential at a given point in time to influence the attitudes and/or behavior of one or more specified target persons in the direction desired by the agent" (p. 18). Authority is conceptualized as "the locus of overall organizational responsibility and legitimacy," and anchors "the role system of an organization" (Gronn, 2000, p. 322). Hatcher (2005) posits that if power and authority operate independently, then teacher leadership becomes a form of pseudo-democratic

leadership. However, Gronn (2000) suggests that teacher leadership should be created within a non-hierarchical collaborative network that is characterized by a form of peer control, which ensures that both the power base and authority are dispersed within a community. Johansson-Fua (2004) argues that in the notion of teacher leadership, there is a close relationship between “nature of influence” and “nature of relationships.” The nature of influence is based on power and authority, which leads to hierarchical relationships. The nature of influence is based on group participation in decision-making and interpersonal skills, which leads to horizontal relationships.

Subsequent research has argued that the definition of teacher leadership is associated with two dimensions: influence and relationship (Wang & Ho, in press). Harris (2005) highlights four aspects in the definition of teacher leadership: (1) creation of collegial norms; (2) opportunities to lead; (3) working as instructional leaders; and (4) reculturing schools. Among these, Hairon, Goh, and Chua (2015) claim that York-Barr and Duke (2004) lead an overarching conceptual framework, consisting of seven components: (1) characteristics of teacher leaders; (2) type of leadership work engaged in teacher leaders; (3) conditions that support the work of teacher leaders; (4) means by which teachers lead; (5) the targets of their leadership influence; (6) the intermediary outcomes of changes in teaching and learning practices; and (7) student learning. Meanwhile, they also believe that five key overlapping themes can be derived in regard to teacher leadership, including (1) influence in leading others; (2) leading with others; (3) leading collegial relationships; (4) leading teacher learning; and (5) leading for teaching and learning. However, a question is raised about who are teacher leaders, and how do they influence others? Consequently, the concept of teacher leadership has to be unpacked, which provides a conceptual framework for this study. These questions will be explored in more depth in the following sections.

2.1.1 Who Are Teacher Leaders?

Based on the conceptualization of teacher leadership, neither York-Barr and Duke's (2004) or Katzenmeyer and Moller's (2009) works have provided a precise understanding on who teacher leaders are in the school contexts; instead, they simply mention teacher leaders' roles. Subsequent queries are raised about whether teacher leaders should include all staff members in the school or just those who hold the formal titles.

Hunzicker (2013) has found that the role of teacher leaders can be divided into two categories: formal and informal. Formal teacher leaders usually hold central positions in determining the ways in which schools operate (York-Barr & Duke, 2004) or are regarded a middle position between teaching and administration (Firestone & Martinez, 2007). They work outside the classroom to support school-wide or district-wide issues and initiatives, and serve, for example, as teachers-in-residence, coaches, master teachers, clinical educators, and professional development providers (Hunzicker, 2013). Anderson (2004) sees formal teacher leaders who encompass responsibilities (such as subject leader, head of department or head of year) as often moving away from the classroom to achieve this aim. Therefore, the middle leaders in preschools in China (such as key stage coordinators and subject leaders) can be considered to be formal teacher leaders. In contrast, informal teacher leaders are those who hold no official title or position, even though their work extends beyond their teaching duties and classrooms (Hunzicker, 2013), and who perform classroom-related functions such as planning, regulating activities, creating a pleasant workplace environment, supervising, and motivating and evaluating the performance of those supervised (Anderson, 2004).

This perspective of teacher leaders' roles is actually a psychological point of view, which considers leadership a process where an individual influences a group of individuals to achieve a common goal (Northouse, 2006). For example, Angelle and DeHart (2010) pointed

out that teacher leaders are individuals who can share their expertise of content, instruction and classroom management; who can tackle leadership opportunities and challenges; and who can perform activities beyond the prescribed roles of a teacher. The functions of teacher leaders include implementing school-wide policies and programs, teaching and learning, and communication and community relations (Danielson, 2007). This perspective has aroused scholars to reflect on the roles that teacher leaders perform. Two relevant research themes may be able to answer this question: teacher leaders' characteristics and their specific roles. The common characteristics among teacher leaders include focusing on student learning, a desire to work for change, an ability (knowledge and skills) to plan and organize, and a propensity to develop and maintain relationships (DiRanna & Loucks-Horsley, 2001; Moller, Childs-Bowen, & Scrivner, 2001). Derrington and Angelle (2013) summarized a number of teacher leaders' roles, including sharing knowledge with colleagues, reflecting on instructional work, engaging in action research, mentoring others, promoting social consciousness, taking risks, nurturing relationships, encouraging professional growth, standing for and helping others with change, challenging the status quo, focusing on curriculum improvements, and playing a vital role in school reform.

This present analysis of teacher leadership roles is conducted in ECE in China, which is dominated by the culture of Confucianism; therefore, the question of the teacher leaders' formal roles becomes more salient. Indeed, in a Confucian society, leaders reflect a high level of authority (Chen & Chung, 1994). This value is rooted in the long-term cultural concept of a single head of an organization who leads a group of subordinates. As previously mentioned, preschool principals who hold formal positions are responsible for handling all of the vital concerns and decisions in the school. Consequently, the influence of Confucianism on human relationships in a hierarchical society inhibits those who are considered informal teacher

leaders from practicing leadership. This observation coincides with research suggesting that participants who do not occupy a designated leadership position are reluctant to demonstrate leadership behaviors because this might be seen as a challenge to the person who is in a leadership or management role (Krieg et al., 2014). Moreover, teachers who do not occupy a designated leading position are not conscious about the role that their informal leadership plays in school development. Practically, leadership that emerges from relationships is not solely embedded in formal roles but is also found in informal roles (Scribner, Sawyer, Watson, & Myers, 2007).

Many scholars have described teacher leadership as a form of leadership that moves beyond formal titles and responsibilities (Frost & Harris, 2003; Grant, 2005) and instead relates to behavior and performance (Stein, 2014). Additionally, teachers can exercise formal or informal influence over others through collaborative relationships (Poekert, 2012).

Furthermore, even those teachers who have no intention to lead the change can become agents of change by collaborating with others to improve their communities (Carrion & García-Carrión, 2015). In fact, the Western literature has indicated that efforts directed by informal leaders can more significantly influence a school's improvement and development than the efforts of formal leaders (Fairman & Mackenzie, 2015). In this light, we suggest that our initial research may investigate how various school stakeholders perceive teacher leadership in ECE in China. This approach may reveal which teacher leadership role (formal or informal) is more relevant in the Chinese context, which is dominated by Confucianism in the current education reform.

In short, whoever assumes a role (formal or informal) that satisfies a team's need can be viewed as taking on a leadership role (Morgeson, DeRue, & Karam, 2010). Those teachers who hold formally appointed leadership positions can be classified as formal leaders, whereas

those who exercise leadership but who are not appointed to leadership positions can be understood as informal leaders. There is a common understanding in recent years that all teachers can exercise formal or informal influence over others through collaborative relationships (Carrion & García-Carrión, 2015; Poekert, 2012).

2.1.2 What Teacher Leaders Do

Leadership is considered to be a social influence process whereby one person (or group) has an influence over other people or groups to structure the activities and relationships in a group (Yukl, 2012). Yammarino (2013) argues that leadership is a multilevel leader-follower (person, group, collective) interaction process that occurs in a particular context where a leader and their followers share a purpose and jointly accomplish things willingly. In particular, teacher leadership is fundamentally about change that is guided by a collective vision (Grant, 2005). This perspective is influenced by the idea of distributed leadership, which means that leadership is distributed among leaders and followers within a context (Spillane, Halverson, & Diamond, 2004), and involves dynamic interactions among multiple leaders and followers (Harris, 2003b; Timperley, 2009). A distributed perspective recognizes that there are multiple leaders, with the focus being placed upon the interactions rather than the actions of specific roles because this perspective is primarily concerned with how leadership influences organizational and instructional improvements (Harris & Spillane, 2008). Meanwhile, Harris (2003a) states that teacher leadership places emphasis upon collective action, empowerment and shared agency, which is reflected in distributed leadership theory. In the distributed leadership perspective, teacher leadership is not considered as a teacher leader role but is instead seen as a leadership practice (Heikka & Hujala, 2013; Thornton & Cherrington, 2014).

The literature has indicated that teacher leadership can be viewed as a form of distributed leadership (Harris, 2003a). For example, Poekert (2012) believes that models of distributed leadership align well with the concept of teacher leadership. Like teacher leadership, distributed leadership focuses on leadership practice rather than on leaders or their roles, functions, routines and structures (Aliakbari & Sadeghi, 2014). Spillane, Halverson and Diamond (2004) suggest that a distributed leadership perspective involves the leader plus the aspects of practice. The designation of “leader-plus” enables us to understand that individual cognition is not only distributed in social situations but that it is also more distributed than other forms of cognition (Perkins, 1993). Practice includes the complexity of the work and its environment. This complexity influences the structural performance of these organizations. The distributed leadership perspective confirms the influence of multiple leaders, instead of just relying on the actions of those in formal and informal roles (Harris, 2008). Furthermore, this perspective is echoed by the idea that leadership in ECE should not lead to a top-down delegation of work but should instead lead to a collaborative effort between multiple levels and among multiple participants (Hujala, Waniganayake, & Rodd, 2013). This idea is consistent with the concept of horizontal collectivism, which focuses on sharing and cooperation (see Section 2.4).

The ways in which teacher leaders perform leadership practices to influence others has been discussed in a number of studies (Angelle & Teague, 2014; Berg, Carver, & Mangin, 2014; Beycioğlu & Aslan, 2010; Katzenmeyer & Moller, 2009; Nudrat & Akhtar, 2014; Yor-Barr & Duke, 2004). The representative frameworks of teacher leadership emerged from York-Barr and Duke (2004), and Katzenmeyer and Moller (2009), who have been extensively cited by researchers of teacher leadership. For example, Sinha and Hanuscin (2017) use York-Barr and Duke’s (2004) framework for qualitative data analysis (coding). Meanwhile, Cheng and Szeto

(2016) use Katzenmeyer and Moller's (2009) conceptual dimensions of teacher leadership in their qualitative data analysis.

York-Barr and Duke's (2004) seven dimensions of teacher leadership (p. 266) are as follows:

1. Coordination and management,
2. School or district curriculum work,
3. Professional development of colleagues,
4. Participation in school change/improvement,
5. Parent and community involvement,
6. Contributions to the profession of teachers,
7. Pre-service teacher education.

Katzenmeyer and Moller's (2009) seven dimensions of teacher leadership (p. 55) are as follows:

1. Self-awareness,
2. Leading change,
3. Communication,
4. Diversity,
5. Instructional proficiency and leadership,
6. Continuous improvement,
7. Self-organization.

Although this research has been conducted in several different contexts, overlapping themes are inevitable (Hairon et al., 2015). In Fairman and Mackenzie's (2012, 2015) research, they use the term "sphere" to describe teacher leadership action for learning, representing a three-dimensional model: individual level, collective level, and formal and informal roles. The sphere describes who is involved in the activity, the scope of the activity and what they are doing in the activity (Fairman & Mackenzie, 2012, 2015). Lovett (2018) also uses the concept of "spheres of influence" to discuss teacher leadership. The review of literature indicates that teacher leadership focuses on roles beyond the classroom (Wenner & Campbell,

2017). Based on the existing research literature, in this present study I conceptualize the spheres of influence of teacher leadership as a three-dimensional model: school-level, peer-level, and building relationship with parents. The concepts of each of three-dimensional model are shown next.

The school-level teacher leadership describes the method in which teacher leaders use strategies to promote school improvement and develop on an organizational level. These strategies can be divided into staff management, curriculum and pedagogy, teacher professional development, leading school change, direction setting, and community involvement.

Peer-level teacher leadership means that the school's staff members build a supportive relationship to support each other in their professional development. This relationship is built upon professional support, role model, empowerment, and respect for diversity.

Finally, building a relationship with parents to establish a school-family network helps to promote the child's development. This relationship is built on encouraging parent involvement and communicating with parents.

Table 1

A Summary of the Spheres of Teacher Leadership

Spheres of Influence	Themes	Examples/Definition	Sources
School-level	Staff management	<ul style="list-style-type: none"> • Coordinating daily schedules and special events; • Participating in administrative meetings and tasks; • Participate in peer performance evaluation; • Monitoring improvement efforts; • Handling disturbances; • Directing the team and sharing responsibilities with team members in daily practice to satisfy the school's goals. 	Angelle & Teague, 2014; Ault, 2009; Beycioğlu & Aslan, 2010; Grant et al., 2010; Greenlee, 2007; Harris, 2002; Katzenmeyer & Moller, 2009; Kouzes & Posner, 2003; Krisko, 2001; Lindahl, 2008; Lynch & Strodl, 1991; Nudrat & Akhtar, 2014; Triska, 2007; York-Barr & Duke, 2004
	Curriculum and pedagogy	<ul style="list-style-type: none"> • Selecting and developing the curriculum; • Defining outcomes and standards; • Planning, assessing and aligning pedagogy with the long-term goals of the school. 	Grant et al., 2010; Harris, 2002; Heikka, Halttunen, & Waniganayake, 2016; Heikka & Hujala, 2013; Rouse & Spradbury, 2016; Stamopoulos, 2012; York-Barr & Duke, 2004
	Teacher's professional development	<ul style="list-style-type: none"> • Leading professional learning community; • Facilitating communities of teacher learning through organization-wide process; • Giving in-service training to colleagues; • Participating in professional organizations; • Building partnerships with colleges and universities to prepare future teachers. 	Berg, Carver, & Mangin, 2014; Beycioğlu & Aslan, 2010; Harris, 2002; Thawinkarn, 2018; York-Barr & Duke, 2004
	Leading school change	<ul style="list-style-type: none"> • Confronting barriers and challenging the status quo in the school's culture and structures; • Working with peers for school change. 	Katzenmeyer & Moller, 2009; Kenjarski, 2015; York-Barr & Duke, 2004

Peer-level	Direction setting	<ul style="list-style-type: none"> School leaders share an understanding of the school and the relevant activities and goals that can create a clear purpose or vision among all teachers in the school. 	He & Ho, 2017; Kouzes & Posner, 2003; Leithwood et al., 2007
	Community involvement	<ul style="list-style-type: none"> Creating partnerships with community business; Working with the community and community organizations. 	Greenlee, 2007; Sandholtz, 2002; York-Barr & Duke, 2004
	Professional support	<ul style="list-style-type: none"> Guidance for novice teachers; Sharing of pedagogical or classroom management knowledge. 	Angelle & Teague, 2014; Grant et al., 2010; Greenlee, 2007; Harris, 2002; Katzemeyer & Moller, 2009; Nappi, 2014; York-Barr & Duke, 2004
	Role Model	<ul style="list-style-type: none"> Role model in teaching; Continuous improvement; Self-awareness and management. 	Jantzi & Leithwood, 1996; Katzemeyer & Moller, 2009; Kenjarski, 2015; Kouzes & Posner, 2003; Thawinkarn, 2018
	Empowerment	<ul style="list-style-type: none"> Encouraging teachers to learn from one another; Recognizing staff for outstanding performance and celebrating organizational successes. 	Danielson, 2003; Hairon, Goh, & Chua, 2015; Harris, 2003b; Kouzes & Posner, 2003; Turan & Bektas, 2013
	Respect for diversity	<ul style="list-style-type: none"> The teacher shows respect for and responds to differences in perspective. 	Fairman & Mackenzie, 2015; Katzemeyer & Moller, 2009
	Parent involvement	<ul style="list-style-type: none"> Becoming involved with parents; Encouraging parent participation. 	Berg, Carver, & Mangin, 2014; Greenlee, 2007; Lindahl, 2008; York-Barr & Duke, 2004
Building relationship with parents	Communication with parents	<ul style="list-style-type: none"> Parental conference; Problem solving for the children. 	Ho, 2008; Pounder, 1999

2.2 Different Perceptions of Teacher Leadership

To provide a conceptual framework for *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?”, this section will review how the practices of teacher leadership are perceived by various school stakeholders. It was found that various school stakeholders perceive teacher leadership differently. Based on the existing literature, factors such as job positions, professional qualifications, teaching experience, and social identities are associated with the perceptual difference of various school stakeholders. Each of these factors will be discussed in the following subsections.

2.2.1 Job Positions and Teacher Leadership

Generally, job positions in the school include principals, middle leaders (e.g. vice-principals, key stage coordinators, senior teachers), and classroom teachers. Wells et al. (2010) researched the principals’ perceptions of the superintendents’ role and found that the principals desire their superintendents to adopt active roles to engage in activities to support teacher leadership programs. Boyd (2011) indicate that principals tended to define teacher leadership through ideal qualities and through examples such as tasks, roles, and opportunities. However, the teachers defined teacher leadership as a learning process; that is, first, leadership begins with an interest in a subject; and it then continues through the learning process; and finally, it culminates in the sharing of knowledge with colleagues (Huth, 2002). Angelle and DeHart (2011) found that teachers with a leadership position held different perceptions of teacher leadership than those who had no position. Research has also shown that some classroom teachers are unaware that larger roles exist outside of the classroom (Katzenmeyer & Moller, 2009) and are reluctant to see themselves as leaders (Fairman & Mackenzie, 2015; Krieg et al., 2014). This is why it is essential to pay attention to the followers’ attitudes, initial views and motivations in the leadership process (Brezicha,

Bergmark, & Mitra, 2015; Collinson, 2006; Hanuscin, Rebello, & Sinha, 2012) and help them to recognize that they are leaders (Hilty, 2011). As mentioned in Section 1.3.2, perceptual congruence can entail a self-evaluation of the principals and also the parallel evaluations from their subordinates (Goff, Goldring, & Bickman, 2014). Therefore, Hypothesis 1 of this study is presented as follows:

Hypothesis 1: There are differences of teacher leadership as perceived by various school stakeholders who hold different job positions.

2.2.2 Professional Qualifications and Teacher Leadership

Research has confirmed that there is an association between the staff's qualifications and quality provision of ECE (Ho, Lee, & Teng, 2016; Sims & Waniganayake, 2015; Waniganayake et al., 2012). Professional qualifications are an important attribute for individual teachers. It has been shown that achieving a Bachelor's degree level is essential for preschool teachers who wish to be professionally competent (Blank, 2010) and is beneficial because it increases the teachers' professional knowledge (Fukkink & Lont, 2007), leadership skills (Justice & Espinoza, 2007), and changes their outlook and attitude (Allen & Seaman, 2005; Kucukturan, 2011). Meanwhile, Angelle and DeHart (2011) found that there were significant differences of teacher leadership perceptions among teachers' education levels. Ho, Lee, and Teng's (2016) research also showed that there was a significant relationship between a teacher's qualifications and their perceptions of professional learning community practices. In this study, professional qualifications involve education attainment and teacher qualification, which are considered to be the two main predictors of professional quality. Hence, Hypothesis 2 is presented as follows:

Hypothesis 2: There are differences of teacher leadership as perceived by various

school stakeholders who hold different professional qualifications.

2.2.3 Teaching Experience and Teacher Leadership

Teaching experience has been proven to make a difference by measuring perceptions of teacher leadership (Bradley-Levine, Mosier, & Perkins, 2014). It also influences the teacher's willingness to assume more responsibility outside of their classroom duties. Research has found that novice teacher leaders lacked self-awareness and confidence in leading others (Forrest, 2009). Boyle, Lamprianou, and Boyle (2005) found that, when compared with novice teachers, experienced teachers preferred sharing expertise within and across schools. Moreover, lacking teaching experience can influence teachers' leadership competency, such as dealing with conflict, negotiating competing agendas/responsibilities and balancing micro-diversions, and frustration with lack of influence and impact (McKenzie & Locke, 2014).

Teaching experience has a close relationship with the leadership development process, which refers to "every stage of development in the life cycle that promotes, encourages, and assists in one's leadership potential" (Brungardt, 1997, p. 83). Teacher leadership development is a continuing process, which is somewhat dependent on the maturity of the teachers, their leadership skills and experience, and their expertise (Fairman & Mackenzie, 2012; Lord & Hall, 2005). Studies on the models of teacher leadership development process have been discussed by a number of scholars, as shown below.

Pounder (2006) presents a four-wave model of teacher leadership:

1. First, the teachers implement other teacher leaders' decisions, which are made through formal roles and serve more of a managerial purpose for increasing school operations.

2. The second wave leads to the development of teachers as staff developers, mentors, and curriculum leaders, which focuses on the instructional expertise of the teacher leaders.
3. Third, the teacher carries out their normal duties without formal leadership positions as a means of reculturing the school. This emphasizes an organizational inquiry-based culture, which supports collaboration and continuous job-embedded learning in school.
4. The fourth wave of teacher leadership includes transformational classroom leadership as one of the defining qualities of a teacher leader, which leads to their perception as exemplary teachers by their peers, seeking to make school improvement without the power of a formal leadership role.

Brooks, Scribner, and Eferakorho (2004) show a three-spheres of teacher leadership responsibilities:

1. Classroom teacher leaders: the parameters of teachers' leadership responsibilities are contained inside the classroom.
2. Departmental teacher leaders: the teachers are committed to supporting the work of their discipline-specific colleagues, such as curriculum development, intradepartmental collaboration.
3. Whole-school teacher leaders: the teachers are active in school-wide committees and see their leadership work as a vital resource that informs school policy and institutional direction.

Riel and Becker (2008) conceptualize the development of teacher leadership in a pyramidal model:

1. The bottom level is based on classroom practice, where a teacher functions and learns in the classroom.
2. The second level shows teachers collaborate and share responsibility for student achievement.

3. The third level involves the use of professional networks, where teacher leaders interact and share ideas outside of the school.
4. The top level consists of knowledge building, where teacher leaders make contributions to the teaching profession on a grand scale.

In Sanocki's (2013) thesis, a six-step process of becoming a teacher leader was developed:

1. Classroom teacher first, who primarily focuses on positively impacting students.
2. Introspection of their roles.
3. Overcome their fears.
4. Navigate egalitarianism, seniority, and administrative gate keeping on their path to action and agency.
5. Build, maintain, function and communicate in a learning community.
6. Engage themselves and others in positive change within the school.

So far in this discussion, the teacher leadership process reflects a continuum that moves from individual work with a limited improvement focus and scope to collective work with a broader scope. In other words, the teacher leaders usually begin by focusing on their classroom teaching and they later move into other leadership spheres where they collaborate with and influence colleagues on a widespread impact (Riel & Becker, 2008; Fairman & Mackenzie, 2012). However, these models of development process are not fixed, some teachers may move across in no particular order (Fairman & Mackenzie, 2012). For instance, Sinha and Hanuscin (2017) found that the novice teachers tend to start leading within the classroom first, while in Szeto and Cheng (2018) found that the novice teachers were able to take up leadership roles, both formally and informally. Consequently, Hypothesis 3 is presented as follows:

Hypothesis 3: There are differences of teacher leadership as perceived by various school stakeholders who hold different years of teaching experience.

2.2.4 Types of Employment and Teacher Leadership

Preschool teachers in China have been viewed as babysitters rather than as teachers or educators, which may lead them to hold a poor self-image of themselves and their own professionalism (Ho, 2012; Zhang & Yu, 2017). Professionalism enables teachers to have a sense of self-direction, independence, and autonomy (Freidson, 2001). In turn, teachers acting in leadership roles can affect professionalism, curriculum innovation, student learning, and organizational capacity (Ngcobo & Tikly, 2010). However, preschool teachers in China are labelled as babysitters and they have low social status, low income and low prestige (Zhang & Yu, 2017). Consequently, doubts have been raised about whether or not preschool teachers are willing to take leadership roles.

China's local governments have a *Tenured Policy* for the personnel management of preschool staff members. The *Tenured Policy* divides the staff members into two groups—that is, tenured and non-tenured (contract-based, temporary). This leads to different types of employment for school stakeholders (Liang, 2011). Due to these different types of employment, the teacher policy in terms of teacher salary and administration is different and is based on whether their salary and personnel matters (e.g. job titles, job promotion) are administrated by the local government. For tenured staff members, their salary and personnel matters are totally administrated by the local governments. Meanwhile, contract-based staff have to sign a labor contract with their schools, indicating that their salary and personnel matters are administrated by the schools but their contract rights are protected by the local government. The salary and personnel matters of temporary staff members are administrated by schools without signing up to a contract. These staff members can be dismissed by schools at any time. Compared with contract-based and temporary staff, the professional roles of tenured staff are more recognized by the public because they are administrated by the local

government. The temporary staff are in the worst situation because they can be dismissed by their schools at any time. Given the different treatments between different types of employment, Hypothesis 4 is presented as follows:

Hypothesis 4: There are differences of teacher leadership as perceived by various school stakeholders who hold different types of employment.

2.3 Factors Influencing Teacher Leadership

As mentioned in Section 1.3.3, the existing literature has helped me to identify the key components that influence teacher leadership as perceived by various school stakeholders, including power distance, school culture, and school principals, which will be verified by the qualitative study (see Section 4.3).

2.3.1 Power Distance and Teacher Leadership

Power-distance is defined by Hofstede (1985) as “the extent to which the members of a society accept that power in institutions and organizations is distributed unequally” (p. 348), which is considered a factor that hinders leadership practices (Hallinger, Walker, & Bajunid, 2005; Ho & Tikly, 2012; John & Michael, 1997). Power-distance can be found in many existing cultural value frameworks (House et al., 2004). However, there is little empirical research that discusses the relationship between power-distance and teacher leadership in the school contexts. Consequently, my work has been informed by a wider scope of literature on leadership research in related fields, such as business, government organizational settings, and medicine.

Reviews of the cross-cultural management literature have indicated that individually held cultural values and beliefs play a key role in how employees react to aspects of their work (Kirkman, Lowe, & Gibson, 2006; Tsui, Nifadkar, & Ou, 2007). According to Schwartz

(1992), high power-distance is referred to as hierarchy while low power-distance is referred to as egalitarianism. This argument has been verified in Hofstede and Hofstede's (2005) research, who found that employees with a higher power-distance orientation are more receptive to organizational hierarchy and they show a strong respect and deference to the figures of authority in the organization. In their eyes, leaders are people of a different type (Hofstede, 1980). They may also think that copying the behavior of leaders is inappropriate and tend not to request information from high-ranking authority figures (Atwater et al. 2002). Consequently, high power-distance employees prefer to have less communication with and maintain greater social distance from their leaders, showing a strong deference to authority figures (Farh et al. 2007). In a high power-distance and collectivist culture, such as Turkey, leaders use both implicit influence and directive influence (Pasa, 2000). Similarly, Kirkman, Lowe, and Gibson (2006) found that employees in autocratic societies come to expect that their leaders know what is right and would want them to take charge and give directions. However, employees in low power-distance organizations are less willing to blindly accept directions from their superiors and are sensitive to how their supervisors treat them during their interactions. In contrast, low power-distance employees are egalitarian and are less likely to submit to authority (Lam et al. 2002). They like to participate in organizational decision-making, and perceive leaders to be socially close in terms of work experience and job responsibilities; hence, frequent communication with leaders is preferred and expected (Kirkman et al. 2009).

Schein (2006) argues that cultural norms emphasize leaders' behaviors of creating and managing culture, and leaders' ability to understand and work with culture. In this regard, among the research on creating organizational culture in leadership areas, the culture of egalitarianism and hierarchy has been shown to have an important influence on the practices

of teacher leadership (Eargle, 2013; Frost & Harris, 2003; Johnson & Donaldson, 2007; Kilinc, 2014), particularly because it affects teachers' collaboration and willingness to participate in teacher leadership (Ash & Persall, 2000). In an egalitarian culture, the norms of collegiality among teachers and their administrators can present a potential barrier to teacher leadership (Hammersley-Fletcher & Brundrett, 2008). Meanwhile, in a hierarchical culture, traditional beliefs relating to leadership place emphasis on a hierarchical structure, which has shaped discussions on leadership in the area of education (Hard, 2008; Robbins, Millett, & Waters-Marsh, 2004). This study has pointed out that participants who do not occupy a designated leadership position discussed their reluctance to demonstrate leadership because this could be seen as a challenge to the person in a leadership role within a hierarchical structure (Krieg et al., 2014). Influenced by traditional views that leadership is a hierarchical model and administrative tasks are an essential component of leadership, the teachers tend to believe that only those who hold a formal role or title empowering authority can lead others (Grarock & Morrissey, 2013). Although teachers recognized their roles as constituting leadership in schools, they did not use the term "leader" to refer to themselves (Fairman & Mackenzie, 2015).

So far in this discussion, power-distance tends to interpret the relationship between leaders and teachers. The perceived power-distance of various school stakeholders might affect their interactions with their principals, and this will affect their teacher leadership practices.

2.3.2 School Culture and Teacher Leadership

School culture which is a specific kind of organizational culture situated in an educational context, includes norms, values, vision, expectations, systems beliefs and habits (Schoen & Teddlie, 2008). The long-term beliefs and values of an organization will influence the staff's attitudes and behaviors (Tsai, 2011). Early research has indicated that teachers' perceptions of

organizational culture are the determining factor that influences their decisions on whether or not to take on leadership roles (Mulford & Silins, 2003; Silins & Mulford, 2004). Findings from a cross-national study showed that organizational culture was strongly perceived as being related to leadership effectiveness (Kwantes & Boglarsky, 2007). In educational organizations, every school has a culture built in the process of its formation (Marzano, Waters, & McNulty, 2005). Because each organization is formed by people with different characteristics, the culture that is developed by each organization has unique features that separate it from others (Dimmock & Walker, 2005). Consequently, its impact on teacher leadership practices might be different. For example, Angelle and DeHart (2011) found that the perceptions of teacher leadership were significantly different among the three different school levels; that is, elementary-, middle-, and high-levels.

In China, there are two types of preschools: public and private. Until 2016, private preschools accounted for 64.3% of all preschools in China. This analysis of school culture was conducted in preschools in China, which was informed by Schoen and Teddlie (2008), who describe school culture as being comprised of four different dimensions: (1) professional orientation; (2) organizational structure; (3) quality of the learning environment; and (4) student-centered focus. However, not all the dimensions of school culture in preschools in China have been discussed. Therefore, I only took the dimensions of professional orientation and organization structure as examples to compare the differences of school culture between public preschools and private preschools.

Professional orientation refers to indicators that school members are individually or collectively involved in professional development and improvement. In Schoen and Teddlie's (2008) work, they consider professional orientation incorporates as professionalism or teacher professionalization. As indicated before, preschool teachers in China have been

viewed as babysitters, which leads them to hold a poor self-image of their own professionalism. Especially for those teachers in private preschools, their professionalism is lower than teachers in public preschools, because most of teachers in private preschools are non-tenured (Wang, Hong, & Pang, 2015) caused by the Tenured-policy in China mentioned in Section 2.2.4. Their professionalism is not recognized by the public. Therefore, the professional orientation in public preschools may be different from private preschools.

Organizational structure takes into account organizational level factors affecting the way business is conducted the school. Apparently, public and private preschools in China have different organizational structures. Because the private preschools are market-driven, most of them obtain little or no funding from the local governments. Therefore, the governmental documents for private preschools mainly focus on their quality and safety inspections, instead of their administrative affairs. Therefore, the local governments provide private preschools with much autonomy in school decision-making. In contrast, the operating funds of public preschools are largely supported by the local governments, leading to decision-making that is more government-oriented. Therefore, public preschools in China have a higher level of hierarchical structure, while private preschools have a higher degree of autonomy in school decision-making (Yue & Song, 2015).

As mentioned previously, teachers perceive organizational culture as the determining factor influencing their decisions on whether or not to take on leadership roles (Mulford & Silins, 2003; Silins & Mulford, 2004). Hence, Hypothesis 5 is presented as follows:

Hypothesis 5: There are differences of teacher leadership as perceived by various school stakeholders in public and private preschools.

Research has shown that the school culture is influenced by the school's principal (Ho, 2010;

MacNeil, Prater, & Busch, 2009). It is said that although school principals do not directly influence student achievement, they indirectly affect learning by impacting the school's culture (Hallinger & Heck, 1998; Louis, Dretzke, & Wahlstrom, 2010). The main responsibility of the school principals in creating a positive atmosphere is to contribute to the creation of a strong school culture (Turan & Bektas, 2013), which includes collaboration, establishment of relationships with teachers, and recognition of teachers' leadership roles (Lambert, 2003; Muijs & Harris, 2006). A positive school culture may provide teachers with time and opportunity, and can establish regulations to support teacher leadership practice (Hickey & Harris, 2005). Grarock and Morrissey (2013) found that a lack of time is an important impediment to effective leadership. Teachers' heavy workload means that they only have a limited amount of time to enact leadership practices. For example, related research has shown that heavy workload is one of the potential implementation difficulties of professional learning communities (Hairon & Dimmock, 2012). The opportunities provided for teacher leadership are also important (Campbell-Evans, Stamopoulos, & Maloney, 2014; Sato, Hyler, & Monte-Sano, 2014) because opportunities to lead are one of the key aspects in teacher leadership (Harris, 2005). Empowerment can lead to acceptance and variation, personal discovery, and motivation (Avidov-Ungar, Friedman, & Olshtain, 2014). By providing opportunities for teachers to exercise leadership practices, teachers can feel their autonomous changing roles in school because they recognize the contributions and individual strengths that their colleagues have brought to their collective efforts (Fairman & Mackenzie, 2015). The teachers then need to comply with the school's regulations, which are also considered the antithesis of teacher leadership practices (Lieberman & Miller, 2005). Actually, education is defined as an aspect of social services and is therefore within the range of commission regulations (Moos, 2009). Although there is a lack of literature that has analyzed the impact

of school regulation on teacher leadership, Rizvi (2008) has shown that if a subordinate has told their principal that they are particular about rules and regulations, then the principal has willingly agreed to work with them. Therefore, it is worth investigating whether or not the school's culture can influence teacher leadership in ECE in China.

2.3.3 School Principals and Teacher Leadership

A number of scholars have argued that the school principals play a key role in developing the leadership capacity of teacher leaders (Anderson, 2004; Mangin, 2007; Neumerski, 2013) because they know how crucial it is to establish improvements in teaching and teamwork (Ackerman & Mackenzie, 2006). Therefore, principals should encourage teacher leaders to take part in leading the school and lead the school in a collegial way with other members, and empower them to participate in school decision-making (Devos, Tuytens, & Hulpia, 2014; Stoll, Brown, Spence-Thomas, & Taylor, 2015). Bøe and Hognestad (2017) identify seven higher categories representing different kinds of leadership strategies: total informational, request and solicitation, resource allocation, total secondary work, total decision-making, leading knowledge development, and care and consideration. From their front-line experience, Huggins et al. (2016) found that the two exemplary school principals developed the personal capacities of teachers by viewing the leaders' existing capacities, structuring their leadership learning opportunities, guiding their reflections, and assessing their learning in the context of leadership practice. From an effective teacher leadership perspective, school principals should create a clear vision of school reform and situate the teacher leader's work within that vision. They should then evaluate how the allocation of resources may affect their work effectiveness (Weiner, 2011). School principals also cultivate effective teacher leadership by identifying key informal teacher leaders who are successful and respected, involving teacher leaders in school decision-making, and using teacher leaders informally in school

improvement and reform (Acker-Hocevar & Touchton, 1999; Whitaker, 1995).

Another important role played by school leaders is to establish the learning culture within the school for their staff members. Teacher leadership is about learning together, and constructing meaning and knowledge collectively and collaboratively (Anderson, 2004). It is also considered to be a result of learning culture (Durrant, 2005; Harris & Muijs, 2004), and the transformation of teaching and learning to connect key stakeholders in the learning community (Hobson & Moss, 2010). The learning community provides an ideal platform for teachers to exercise their leadership, develop collegial relations and promote collaborative engagement (Klar, 2012). Moreover, teacher leadership shapes the collaborative practices, power relations and knowledge representations within teacher learning communities (Chow, 2016). It also provides a venue for shared values and vision and continuous improvement (Carpenter, 2015). The current research has highlighted the positive relationship between teacher leadership and learning community, which is a form of team learning that is central to organizational success. For instance, the work of Derrington and Angelle (2013) has indicated that there is a strong relationship between the extent of teacher leadership and the staff members' collective efficacy in a school.

In the literature, the key to promoting teacher learning for leadership mainly focuses on the leaders' role and functions, such as how leaders help teams through capacity building (Wageman, 2001), how leaders manage event and boundaries (Druskat & Wheeler, 2003; Morgeson & DeRue, 2006), how leaders promote shared leadership in teams (Carson, Tesluk, & Marrone, 2007; Hiller, Day, & Vance, 2006). In addition, a number of studies have revealed the role of formal leaders in promoting the learning process for school change (Buttram & Farley-Ripple, 2016; Carpenter, 2015; Evans, 2014; Hallinger, Lee, & Ko, 2014; Horton & Martin, 2013; King, 2011). Specifically, Leithwood, Harris, and Hopkins (2008)

argue that teacher leadership from all teachers is equally crucial for developing and promoting a professional learning community at the school level. That is to say, in future research, attention should also be paid to the informal roles of teacher leadership and how it could promote group/team learning through the practice of teacher leadership.

2.4 Chinese Culture and Leadership in Early Childhood Education

The literature in the field of leadership has highlighted the close relationship between culture and leadership (Block, 2003; Ergeneli, Gohar, & Temirbekova, 2007; Taormina, 2008).

Considerable agreement exists that teacher leadership is shaped by culture and that it differs across cultures. Culture is a complex and multidimensional concept. Fan (2000) summed up various definitions of culture and described culture as ‘the collection of values, beliefs, behaviors, customs, and attitudes that distinguish a society’ (p. 3). Accordingly, a national culture is embodied in the value system of a society that shapes beliefs and attitudes and guides behaviour (Fan, 2000). For example, Schwartz (1994) defines six types of cultural values: conservatism, intellectual and affective autonomy, harmony, egalitarian commitment, mastery and hierarchy. In addition to these dimensions of cultural values, scholars have referred to Confucianism to describe culture and leadership in a Chinese context (Ho & Tikly, 2012; Lin, 2008). Because culture and its values are deeply embedded in leadership practices, research has focused on leadership in Chinese organisations and considered Confucianism, collectivism, and Chinese communism (Lin, 2008). Here, we situate these three Chinese cultures in leadership in ECE.

Confucianism dominates Chinese traditional culture and is the foundation for the norms of interpersonal behaviour (Lin, 2008). Confucius described five pairs of basic human relations, called *Wu Lun*, each with its own principles: Sovereign and Subject – loyalty and duty; Father and Son – love and obedience; Husband and Wife – obligation and submission; Elder and

Younger Brothers – seniority and modelling; and Friend and Friend – trust (Fan, 2000). The Confucian concept of *Wu Lun*, especially the first four relationships, have shaped the human relationships between leaders and followers in Chinese organisations (Fu & Tsui, 2003; Tsui, Wang, Xin, Zhang, & Fu, 2004). Specifically, the first relationship, of Sovereign/Subject, indicates that followers need to obey their leaders' orders; the second relationship of Father/Son holds that leaders have absolute authority over followers; the third relationship of Husband/Wife prescribes that males are dominant; and the fourth relationship of Elder/Younger Brothers suggests that age and seniority indicate who may become a leader. The human relations shaped by *Wu Lun* reflect the unequal status of individuals in Chinese society. To date, the concept of *Wu Lun* still has many implications for leadership practices in ECE in China, and this Confucian legacy remains visible in preschools where principals have supreme authority over their subordinates. This inequality is also due to the management system of ECE in China. Historically, ECE in China was not emphasised until 1922, when it was considered a part of the educational system (Zhang, 2009). However, the Chinese ECE system of management has undergone a long and winding process of development. In 1961, the Department of ECE in the Chinese Ministry of Education was abolished. Even worse, in 1966, the Great Cultural Revolution broke out in China, placing ECE in limbo, thus revealing its weak administrative organisation and inadequate governmental authority (Zhang, 2009). In 1978, due to the education reform and opening-up policy, the central government focused once again on the development of ECE. Strictly speaking, by 1989 the management system of Chinese ECE was well-established (Zhang, 2009). This system was influenced by a hierarchical administrative structure, one characterised by a culture of 'high power distance', which refers to 'the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally' (Hofstede, 2011, p. 9).

Since 1989, the management system of Chinese preschools has fallen under the domain of the *Preschool Director's Responsibility*, which indicates that preschool principals are responsible for handling all of the vital concerns and decisions, such as the school's mission, training schemes, and teacher employment, while teachers rarely assume leadership roles. Although the *Preschool Director's Responsibility* emphasises collaboration between principals and teachers, this appears to be superseded by the idea, inherent in Chinese hierarchical culture, that 'only one person has the final say' (Jiang, Liu, & Zhang, 2016). This situation raises questions of how teacher leadership is perceived by those teachers who assume the role of leaders and who consider themselves as having no authority. Questions may also be raised regarding the extent to which teachers do not want to exercise teacher leadership in local preschools where ideologies of unequal power distribution prevail. Indeed, teachers' perceptions of cultural and organisational factors are considered key factors influencing their decisions on whether or not to accept leadership roles (Mulford & Silins, 2003; Silins & Mulford, 2004). The hierarchical culture in ECE settings also directly influences teachers' collaboration and their willingness to participate in teacher leadership (Ash & Persall, 2000). Trust, which is a major factor in organisational culture, has been widely examined in the research on leadership. In fact, compared with other factors, trust in colleagues has the highest correlation with teacher collaboration and a supportive work environment (Demir, 2015). Zheng et al. (2016) identified trust as a moderating factor influencing the effects of teacher leadership practices on professional learning communities. However, in the past two decades, studies of trust as a factor in school improvement have yielded little information on why principals do or do not trust their teachers (Wahlstrom & Louis, 2008). These findings raise questions of how trust is perceived by school principals for promoting teacher leadership. Questions also arise regarding how trust works between teachers and their peers

in professional learning communities, and between teachers and principals in hierarchical relations.

A growing body of literature on leadership has indicated that the concept of collectivism is a key factor related to leadership development (Lin & Huang, 2014; Locke, 2011; Schermerhorn & Bond, 1997). Collectivism refers to ‘a preference for a tightly knit social framework in which individuals can expect their relatives, clan, or other in-group to look after them, in exchange for unquestioning loyalty’ (Hofstede, 1985, p. 347). From this perspective, collectivism is characterised by personal relationships, interdependence, security, duty and in-group harmony (Felfe, Yan, & Six, 2008). With reference to leadership dynamics, collectivists (a) emphasise group interests and view themselves as group members more than as individuals (Singelis, Triandis, Bhawuk, & Gelfand, 1995); and (b) believe that the desire and goals of their group are more important than their individual ones (Hofstede, 2003).

According to Triandis (2001), collectivism is divided into two types: vertical collectivism and horizontal collectivism. In vertical collectivism, hierarchy is emphasised and people submit to specific authorities. The concept of vertical collectivism is pervasive in preschools in China, which, as previously described, are influenced by the management system of the *Preschool Director’s Responsibility*. Each preschool in China has its own internal management system, and most empower specific middle leaders, such as key stage coordinators and subject leaders, to assume leadership roles. However, these middle leaders are led by preschool principals and do not have much autonomy because of the traditional hierarchical culture. In contrast, the concept of horizontal collectivism emphasises equality, sharing and cooperation. However, a hierarchical structure exists even within a classroom in Chinese preschools. Usually, there is one main teacher and one teaching assistant. The main teacher plays a formal role and is responsible for managing the classroom. Therefore, there is no real equality in the classroom.

In China, there is a specific platform for preschool teachers to share their professional thoughts: teaching and research groups, where teachers, especially those without a post or who perceive themselves as having no authority, can act in a leadership role. In this group, human relationships are equal. However, questions emerge because of the contradictions between individual and group interests. The core value of the teaching and research group is to allow school members to share their individual thoughts regarding curriculum change or school improvement. However, because the group consists of members with different professional backgrounds, including different posts, teaching experiences, job titles and levels of educational attainment, these factors may impede teachers with lower professional status to share their ideas in a group, where the teachers might clash with others who have a higher professional status. To be cautious, such teachers may choose to cater to the interests of the majority. Therefore, we suggest that scholars may examine the practice of teacher leadership in preschools in China across two dimensions: vertical collectivism and horizontal collectivism. The former dimension focuses on how teacher leaders resolve the contradiction between individual and group interests. The latter dimension focuses on how teacher leaders work with their leaders (principals).

In addition to Confucianism and collectivism, political ideology plays an important role in shaping the ECE context in China. Since the establishment of the People's Republic of China in 1949, China has been under communist rule. Most organizations in China are controlled by the Chinese Communist Party, with leadership practices influenced by ideologies such as Marxism-Leninism, Maoism, Deng Xiaoping Theory and the theory of Three Represents. In the Chinese education system, ECE is led by the Chinese Communist Party. Almost all of the principals are Chinese Communist Party members (Walker, Hu, & Qian, 2012). Fu and Tsui (2003) depict a series of leadership attributes consistent with communist ideologies, including

being ‘hard working, devoted, action oriented, determined, servicing, abide by principles, collectivistic, corruption resistant, democratic, optimistic, relying on followers, self-sacrificing, value driven, and visionary’ (p. 442). These characteristics, embedded in communist ideologies, represent unique dimensions of leadership in the Chinese context, leading to research on leadership that mainly emphasizes moral integrity (Hui & Tan, 1999; Walker, Hu, & Qian, 2012). It is no wonder preschool principals in China are held to a morality-first standard, according to the *Preschool Principals’ Professional Standards* issued by the Chinese Ministry of Education in 2015. This raises a question of whether preschool principals, as Chinese Communist Party members, could also reflect the moral standards and competences required of teacher leaders. Due to the non-institutionalized approach of selecting preschool principals in China, it is difficult for the public to identify whether local preschool principals have the leadership capability. Since 1989, according to *Preschool Management Regulations*, preschool principals are nominated by sponsors. Moral standard is an important criteria on nomination/selection. Principals of public preschools are nominated by the local government while principals of private preschools are selected by investors. However, the *Preschool Management Regulation* did not clearly indicate how to identify and assess the moral standards of principals. In fact, one’s moral standard is hardly to be assessed. Consequently, neither public nor private preschools have strict standards for selecting preschool principals. It seems that the political ideology might influence the practices of teacher leadership in ECE in China.

2.5 Summary

Based on the *RQs*, this Chapter has presented a comprehensive review of the literature to provide a conceptual framework for the *RQs* of this study:

For *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools

in China?”, the concept of teacher leadership was unpacked based on two frameworks: “who teacher leaders are” and “what teacher leaders do.”

For *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?”, the literature on teacher leadership as perceived by various school stakeholders was reviewed. Finally, five hypotheses were formulated, as follows:

- *H1*: There are differences in teacher leadership as perceived by various school stakeholders who hold different job positions.
- *H2*: There are differences in teacher leadership as perceived by various school stakeholders who hold different professional qualifications.
- *H3*: There are differences in teacher leadership as perceived by various school stakeholders who hold different years of teaching experience.
- *H4*: There are differences in teacher leadership as perceived by various school stakeholders who hold different types of employment.
- *H5*: There are differences in teacher leadership as perceived by various school stakeholders in public and private preschools.

In terms of *RQ3*: “What are the factors that influence teacher leadership as perceived by various school stakeholders?”, the existing literature has helped me find the factors that influence teacher leadership as perceived by various school stakeholders, including power distance, school culture, and school principals, which will be verified by the qualitative study that follows.

Overall, this Chapter has provided a conceptual framework to guide the process of data collection, data analysis, and discussion of the research findings and results.

Chapter 3 Research Methodology

Based on the research questions in this study, a mixed-methods sequential exploratory design was used. Accordingly, in Phase One, the qualitative study was to explore *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools in China”. In Phase Two, the quantitative study was conducted to examine *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?” and *RQ3*: “What are the factors that influence teacher leadership as perceived by various school stakeholders?”. This Chapter presents the mixed-methods sequential exploratory design of the study and its philosophical underpinnings.

3.1 Research Paradigm in the Study

Research paradigms are models or reference frames for observing and understanding certain phenomena (Babbie, 2010). They offer ways of looking at life that are grounded in sets of assumptions about the nature of reality. A paradigm “offers a way of looking at things, whereas a theory aims to explain what we have seen” (Babbie, 2010, p. 44). Greene and Hall (2010) stated that “quantitative” and “qualitative” are not synonymous with “paradigm,” as these qualifiers refer to approaches to data and methods (Biesta, 2010) rather than signaling a singular worldview. According to Guba (1990), research paradigms are characterized by (1) Ontology: What is the nature of reality?; (2) Epistemology: How do you know something?; and (3) Methodology: How do you find it? (p. 18).

In this study, the quantitative research was followed by qualitative research based on *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools in China?”. Situated in the constructivist paradigm (Creswell, 2013), the results indicated that individuals

seek to understand the world by analyzing the processes of interacting with others (Creswell, 2013). Constructivism focuses on the specific contexts in which people live to understand their historical and cultural settings (Creswell, 2013). This study supported the ontological belief that knowledge is a human construct and that empirical findings are subjective in nature (Guba & Lincoln, 2005). Schwandt (2000) noted that constructivism focuses on processes through which these meanings are negotiated and sustained in the particular context of human action. As a result, the constructivist paradigm can be considered an inductive approach (Morgan, 2007).

The quantitative phase was guided by *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?” and *RQ3*: “What are the factors that influence teacher leadership as perceived by various school stakeholders?” The results identified a positivist paradigm and suggested that only “factual” knowledge acquired through observation (e.g. measurement) is trustworthy (Collin, 2010; Hunter & Leahey, 2008). In positivist studies, researchers are independent of the study, which has no provisions for human interests, suggesting a deductive approach (Willson, 2010).

The pragmatic approach provides a direction to connect constructivist and positivist paradigms. The pragmatic paradigm is based on the belief that “theories can be both contextual and generalizable by analyzing them for transferability to another situation” (Creswell, 2009, p. 4). Morgan (2007) also argued that the pragmatic paradigm emphasizes shared meanings and joint actions. As shown in Table 2, the pragmatic approach often combines qualitative and quantitative research in a sequential model in which the deductive goals of quantitative research are based on the inductive results of qualitative research and vice versa (Ivankova, Creswell, & Stick, 2006; Morgan, 2007). In short, the pragmatic paradigm breaks the boundary between constructivism and positivism and creates a

connection between them (Biesta, 2010; Shannon-Baker, 2016). This study prioritized qualitative research, justifying the use of the pragmatic paradigm. The qualitative findings were expected to help design the quantitative scale and provide additional information on the quantitative results (Bhattacharjee & Premkumar, 2004; Venkatesh, Brown, & Bala, 2013).

Table 2

A Pragmatic Alternative to Key Issues in Research Methodology (Morgan, 2007)

	Qualitative approach	Quantitative approach	Pragmatic approach
Connection of theory and data	Induction	Deduction	Abduction
Relationship to research process	Subjectivity	Objectivity	Inter-subjectivity
Inference from data	Context	Generality	Transferability

3.2 Mixed-methods Sequential Exploratory Design

Based on the research questions of this study, a mixed-methods sequential exploratory design will be used. More specifically, the exploratory design instrument development model (see *Figure 1*) was used (Creswell & Plano Clark, 2007). This model is useful when standard measures or instruments are unavailable and when it is necessary to develop and implement a quantitative instrument based on qualitative findings (Creswell & Plano Clark, 2007).

Accordingly, in Phase One (qualitative study), the data were collected using semi-structured interviews. The qualitative findings were then used in Phase Two (quantitative study) to develop the Teacher Leadership Scale and identify the factors that influence teacher leadership as perceived by various school stakeholders.

The Phase One (qualitative research) aimed to answer the *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools in China?”. It had two objectives: first, to explore various school stakeholders’ perceptions of teacher leadership, and second, to identify the factors that influence these perceptions. Qualitative research is used to study the

“whys” and “hows” of human experience (Given, 2008). According to Johnson and Onwuegbuzie (2004), the data collected from qualitative research is in naturalistic settings and based on the participants’ own categories of meaning, which provides an understanding and description of personal experiences of phenomena. It helps the researcher to analyze a limited number of cases in depth, and identify contextual and set factors related to the phenomenon of interest. However, qualitative research is difficult to make quantitative predictions and test hypotheses.

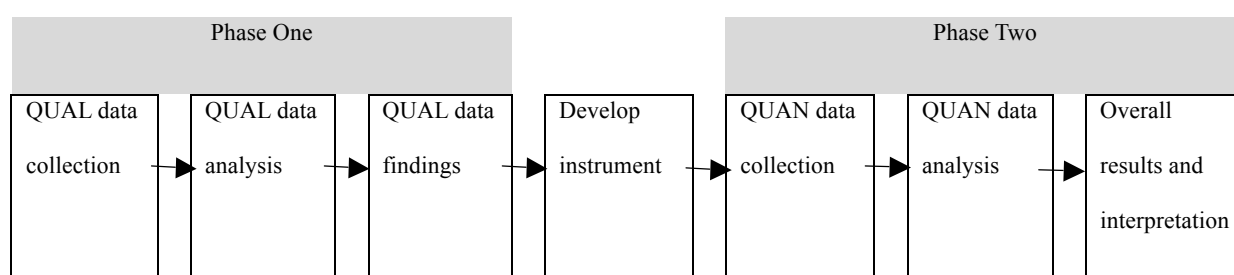


Figure 1. Exploratory Design-instrument Development Model (Creswell & Plano Clark, 2007, p. 53)

In order to test the hypotheses which are generated from the literature review as showed in Section 2.5, the quantitative research design was used to examine *RQ2* and *RQ3*. Compared with qualitative research, quantitative research focuses on examining the underlying meanings and patterns of relationships (Creswell, 2013; Johnson & Onwuegbuzie, 2004). Nevertheless, the quantitative research also has weaknesses such as the researcher may fail to identify some phenomena, and the knowledge produced can be abstract and general (Johnson & Onwuegbuzie, 2004). In this regard, it might be difficult to identify contextual and set factors related to the phenomenon of interest. Therefore, the purpose of mixed methods research is to provide a more complex understanding of a phenomenon that is not accessible with a single approach (Creswell & Plano Clark, 2007; Morse & Niehaus, 2009; Shannon-Baker, 2016). As mentioned above, the qualitative findings are expected to help design the quantitative scale and provide additional information on the quantitative results

(Bhattacharjee & Premkumar, 2004; Venkatesh, Brown, & Bala, 2013). These led to discussion, implications, and suggestions for future research. To this end, mixed methods designs use the strengths of qualitative and quantitative methodologies in one study (Parylo, 2012; Yin, 2006).

3.3 Research Site

Xiamen city in Fujian Province, China, was chosen as the research site for the following reasons.

First, Xiamen city had a high enrollment rate in ECE in 2014, i.e. 97.56% (Internal materials). Theoretically, areas with high enrollment rates in ECE are encouraged to promote the quality of education in China, while areas with low enrollment rates should strive to improve their accessibility rates (Pang & Han, 2010). Moreover, compared with the national ECE enrollment rate of 75% in 2015, Xiamen city largely met the target in ECE education.

Second, Xiamen city piloted reforms aimed at achieving a balanced development of compulsory education, becoming the provincial regional model for the implementation of the *Guide for 3-6-Year-Old Children's Learning and Development* (Department of Fujian Province, 2014). By implementing this *Guide*, the Department of Fujian Province emphasized the importance of the professional leading roles of mainstay preschool principals, mainstay teachers, and subject leaders (Department of Fujian Province, 2014). Following the smooth implementation of the *Three-year ECE Plan of Action* (2011-2013), Xiamen city officials recommended submitting reports to the Chinese MOE (Department of Fujian Province, 2014).

Finally, the researchers at the Xiamen Institute of Education Science Research can help with data collection.

These advantageous circumstances made Xiamen city the ideal research site for this study, with its 674 preschools, including 304 public preschools and 370 private preschools (see Table 3) and 7,451 full-time preschool staff members in 2014 (Education Bureau of Xiamen City, 2016). As a result, conducting research in Xiamen city helped explore various school stakeholders' perceptions of teacher leadership and identify its influencing factors. However, the study has limitations, as using only Xiamen city as the research site could not reflect the overall situation of teacher leadership in ECE in China.

Table 3

Database of Preschools in Xiamen City

Preschools	Quality Ranking	Number	Total Number
Public	Provincial Level	39	304
	Municipal Level	40	
	Common Level	225	
Private	First Level	Unpublished	370
	Second Level	Unpublished	
	Third Level	Unpublished	
	Common Level	Unpublished	

There are two types of quality rating systems for preschools in Xiamen city: one for public preschools and one for private preschools. As shown in Table 3, there are three ranks for public preschools: provincial, municipal, and common, and four for private preschools: first, second, third, and common, based on the Measures for the Administration of Private Preschool Assessment (Education Bureau of Xiamen City, 2011). There were 39 provincial, 40 municipal, and 225 common preschools at the time of the study. Unfortunately, no information was available on the numbers of each quality rating level of private preschools.

3.4 Qualitative Study

Using qualitative research in mixed methods studies helps develop quantitative instruments by identifying items and scales (Creswell & Plano Clark, 2007). To develop the scale to

measure various school stakeholders' perceptions of teacher leadership and identify the factors that influence these perceptions, the data were collected by using semi-structured interviews in the qualitative study, to identify themes and related items describing the perceptions of teacher leadership and its influencing factors.

3.4.1 Research Participants

As this study explored various school stakeholders' perceptions of teacher leadership and its influencing factors, the unit of analysis was the individual. In this study, purposeful sampling was used to select schools and research participants based on Xiamen city preschool types and preschool quality ranking.

Table 4

Preschools Selected for the Qualitative Study

Preschools	Quality Ranking	Principals	Middle Leaders	Teachers	<i>Total number</i>
Public (n = 3)	Provincial Level	1	1	1	3
	Municipal Level	1	1	1	3
	Common Level	1	1	1	3
Private (n = 4)	First Level	1	1	1	3
	Second Level	1	1	1	3
	Third Level	1	1	1	3
	Common Level	1	1	1	3
<i>Total number</i>		7	7	7	21

Purposeful sampling refers to the process by which investigators intentionally choose participants with experience in the phenomenon studied (Babbie, 2010; Creswell & Plano Clark, 2007). In other words, the researcher intentionally selects sites and individuals to understand the central phenomenon (Creswell & Plano Clark, 2007). In this case, the selected schools or individuals are not expected to be representative of the population but rather to have the necessary information about the population (Fraenkel & Wallen, 2007). According to Patton (1990), purposeful sampling is beneficial for maximizing data obtained from a small sample. As mentioned earlier, this study used a mixed-methods sequential exploratory

design, indicating that the qualitative findings would be used for the quantitative study to test the hypotheses generated from the literature review. The final sample consisted of 7 preschools and 21 school stakeholders (see Table 4). The information of the interviewees is presented in Table 5.

3.4.2 Access

According to Glesne (2006), access refers to the process involving “acquisition of content to go where you want, observe what you want, talk to whomever you want, obtain and read whatever documents you require, and do all of this for whatever period of time you need to satisfy the research purposes” (p. 44). To gain access to the participants in this study, I first informed the researcher working at Xiamen Institute of Education Research Science that purposeful sampling was used, then invited the researcher to recommend seven preschool principals for each selected preschool (see Table 4).

After successfully contacting preschool principals, I informed them of my identity, the purpose of my study, and their role in my research (Glesne, 2006), and promised that their information and personal identifiable data were confidential. They were asked to recommend one middle leader and one classroom teacher in their preschool for semi-structured interviews. After agreeing to participate, they received the consent form (Chinese version; see Appendix D) when I arrived at their preschools. Before the actual interviews, each research participant was reminded of the purpose of my research and that their information and personal identifiable data were confidential. In addition, research participants were encouraged to voice their concerns or ask questions about the data collection process before signing the informed consent form.

3.4.3 Researcher's Role

Glesne (2006) considered that a researcher in a qualitative study is “the main research instrument, as he or she observes, asks questions, and interacts with research participants” (p. 5). Glesne (2006) also identified the four roles of a researcher in a qualitative study: exploiter, intervener, advocate, and friend. The purpose of the interviews was to investigate various school stakeholders’ perceptions of teacher leadership. In this study, the researcher played the lead role in the interviews. As a doctoral student, I had no prior contact with the participants. In addition, I had no authority or corrective role at any level of the preschools. Hence, I acted as a friend. Under these circumstances, it was important to build trust and rapport with the participants. As Glesne (2006) suggested, “rapport is an attribute that is instrumental to a variety of professional relationships” (p. 109) and “the ideal of rapport is developing sufficient trust for the conduct of the study” (p. 112).

To build trust and rapport, I was responsible for protecting the rights of participants in an ethical manner, as approved by the Human Research Ethics Committee of The Education University of Hong Kong. Research participants received the consent form before the interviews and were informed of their rights and the possibility to opt out at any point. I promised them that I would keep all interview data secure. They were also informed that the final report would contain identifiers guaranteeing their anonymity and that confidentiality was used throughout the research process.

Table 5

Information of Interviewees (n = 21)

Preschools	Quality Ranking	Position / Pseudonym	Teaching Experience ^b	Work Experience in the Current Position ^b	Education Attainment
Public (n = 9)	Provincial Level	Principal A	16+ years	1-3 years	Bachelor Degree
		Key Stage Coordinator H ^a	16+ years	7-10 years	Bachelor Degree
		Teacher O	1-3 years	1-3 years	Bachelor Degree
	Municipal Level	Principal B	16+ years	11-15 years	Bachelor Degree
		Key Stage Coordinator I	7-10 years	1-3 years	Bachelor Degree
		Teacher P	4-6 years	4-6 years	Bachelor Degree
	Common Level	Principal C	16+ years	1-3 years	Bachelor Degree
		Senior Teacher N	4-6 years	1-3 years	Bachelor Degree
		Teacher Q	1-3 years	1-3 years	Bachelor Degree
Private (n = 12)	First Level	Principal D	16+ years	16+ years	Associate Degree
		Vice Principal J	7-10 years	4-6 years	Bachelor Degree
		Teacher R	11-15 years	11-15 years	Associate Degree
	Second Level	Principal E	11-15 years	1-3 years	Associate Degree
		Senior Teacher K	4-6 years	1-3 years	Bachelor Degree
		Teacher S	4-6 years	4-6 years	Associate Degree
	Third Level	Principal F	7-10 years	1-3 years	Associate Degree
		Key Stage Coordinator L	1-3 years	1-3 years	Associate Degree
		Teacher T	1-3 years	1-3 years	Associate Degree
	Common Level	Principal G	1-3 years	1-3 years	High School Graduate
		Key Stage Coordinator M	1-3 years	1-3 years	Associate Degree
		Teacher U	1-3 years	1-3 years	Associate Degree

Note. a: In China, Key Stage Coordinator refers to a staff member responsible for curriculum development at each grade level (i.e. Junior Class, Middle Class, Senior Class) in preschool.

b: Information on Teaching Experience and Work Experience in the Current Position was classified into groups.

3.4.4 Data Collection

To design the instrument used to investigate various school stakeholders' perceptions of teacher leadership and to identify the factors that influence these perceptions, the central research question explored during the qualitative phase of the data collection was the following: *RQ1* "How is teacher leadership perceived by various school stakeholders in preschools in China?" To answer this question, semi-structured interviews were conducted to collect responses from research participants. Semi-structured interviews allow the researcher to narrow down some areas or topics, compared with unstructured interviews that may fail if topics or themes closely related to research questions are not addressed (Rabionet, 2011). In addition, the order of the questions can be modified according to the participants' responses (Robson, 2002). Semi-structured interviews have a specific purpose and are conducted according to an interview guide containing pre-determined questions on certain themes. In this study, the data collection process was based on one-on-one interviews, during which the researcher asked questions and recorded responses from one participant at a time (Creswell, 2007).

Before conducting the qualitative study, I conducted a pilot study of the interview protocol in a preschool in May 2017. Pilot interviews were conducted with a principal, a key stage coordinator, and a classroom teacher in the same preschool. The pilot study helped refine the interview questions and identify relevant themes (Dikko, 2016). I found that almost all of the interview questions were easily understood by the three research participants. In addition, the Teaching Research Group, allowing all school members to share their thoughts on curriculum change or school improvement (see Section 2.4), was a theme frequently mentioned by participants. As such, I intentionally asked questions about this theme during the actual interview stage.

Semi-structured interviews were conducted in June and July 2017. Participants were invited to reflect on their perceptions of teacher leadership, for which examples were provided if necessary. The interview questions were designed based on the literature review on teacher leadership. For example, to understand whether teacher leaders refer to those who hold the formal titles, the interview question “Do you think teacher leaders require formal titles” was designed. Likewise, the school stakeholders were asked to show their involvement in school-level and peer-level leadership, which were conceptualized from literature review. Given the differences in the roles of principals and other staff members, the interview guides differed slightly (see Appendix A). I personally conducted all interviews. Each interview was recorded and lasted 40 to 60 minutes.

3.4.5 Data Management

Transcription is the process of turning recorded material into text, a precursor for data analysis (King & Horrocks, 2010). Each interview was transcribed shortly after its completion. I transcribed the interviews and used verbatim transcription to preserve the many details relevant to this research. After the transcription, to ensure data security, the documents, including the recordings, were saved on my personal computer, which requires a password to log in. This is to ensure the data security.

3.4.6 Data Analysis

In qualitative data analysis, the term “coding” must be interpreted. Coding refers to “how you define what the data you are analyzing are about” (Gibbs, 2007, p. 38) and is a way of categorizing the text to establish a framework of thematic ideas. There are two types of coding: concept-driven coding and data-driven coding (Gibbs, 2007). Concept-driven coding is based on the literature I conducted for this study (see Chapter 2). Data-driven coding, also

called open coding, “fractures the data and allows one to identify some categories, their properties, and dimensional locations” (Strauss & Corbin, 2008, p. 236). These two analytic approaches (i.e. concept-driven and data-driven) were used in the study.

The purpose of the interviews was to understand various school stakeholders’ perceptions of teacher leadership and its influencing factors in ECE in China. Keeping this research purpose in mind, I conducted a content analysis of the interview data. Content analysis is an inductive approach that collects descriptions of behavioral incidents from research participants and then classifies these descriptions into a number of categories (Hinkin, 1998). To this end, this study followed Schreier’s (2012) steps of qualitative content analysis (see *Figure 2*).

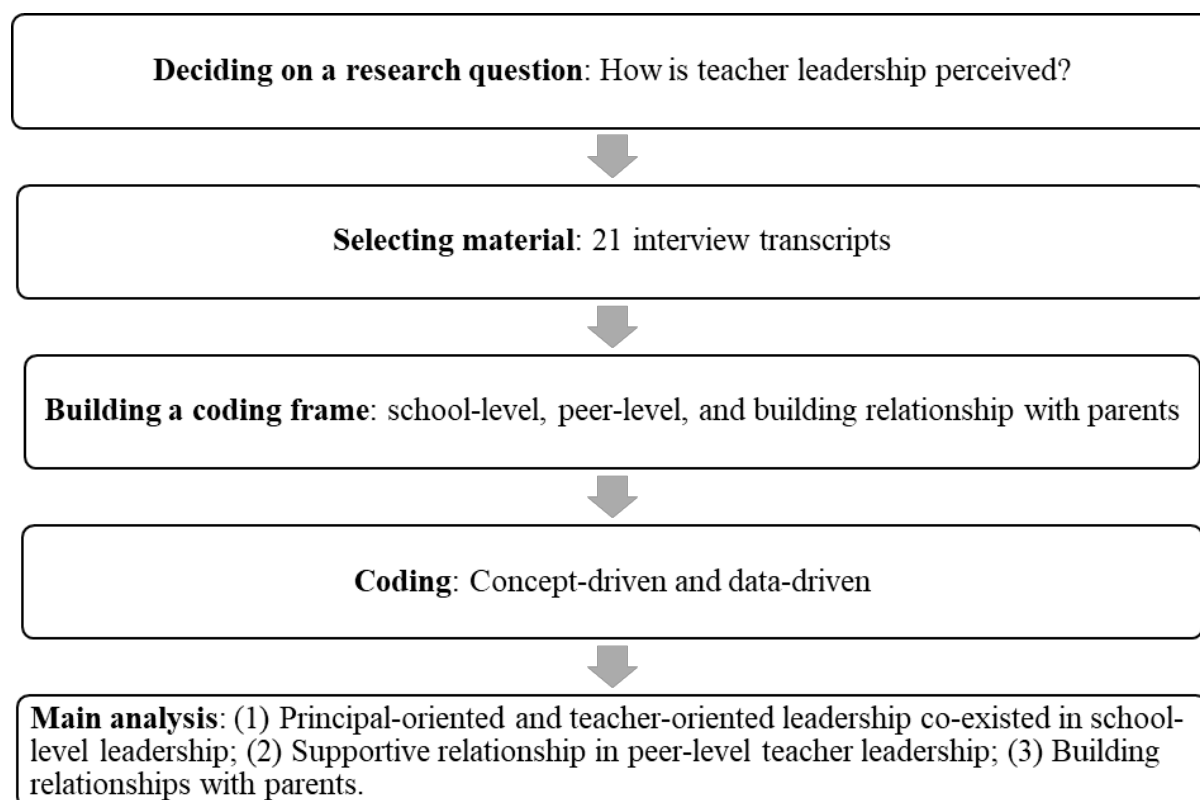


Figure 2. Steps of Qualitative Content Analysis (Schreier, 2012)

During the qualitative content analysis, I invited a PhD student specializing in leadership in ECE as my academic peer to conduct a collaborative analysis, a process during which a joint

focus of two or more researchers on a shared body of data produces an agreed interpretation (Cornish, Gillespie, & Zitoun, 2014). This process allows control of coding accuracy while monitoring inter-coder reliability (Tinsley & Weiss, 2000).

Based on the first step of the qualitative content analysis (Schreier, 2012), I informed my academic peer of the purpose of the study to explore various school stakeholders' perceptions of teacher leadership and its influencing factors. The data analysis material consisted of 21 interview transcripts. For the third step, I created a code sheet listing the three major themes that emerged from the literature review: school-level leadership, peer-level leadership, and building relationships with parents. This analytic process uses concept-driven coding based on the literature review conducted for this study (Gibbs, 2007).

Referring to the code sheet, my academic peer and I independently coded the interview transcripts using NVivo 11.0. In the first step of collaborative coding, I randomly chose one of the interview transcripts of the pilot study. After coding the first interview transcript, we discussed the nodes of disagreements and differences in coding, which were resolved whenever possible. For example, Senior Teacher N's interview transcript indicated that "In my preschool, we have a learning community in which we can share teaching experience and discuss parental work." I coded this transcript into three nodes: "participate in learning community," "share teaching experience," and "discuss parental work." However, my academic peer coded it into two nodes: "share teaching experience" and "discuss parental work." After discussion, we agreed that "participate in learning community" was abstract, thus this transcript should be represented by "share teaching experience" and "discuss parental work." Therefore, I deleted the node "participate in learning community".

The inter-rater agreement was calculated before and after discussion (Tsui et al., 2006). The inter-coder agreement was 90% before the discussion and 97% after. Based on this high

inter-rater agreement, we independently coded the remaining 20 interview transcripts (each coding 10 interview transcripts). After my academic peer coded her 10 interview transcripts, I randomly selected three to code myself and then calculated the inter-rater agreement. Before the discussion, the inter-coder agreement of the three interview transcripts was 92%, 97%, and 95%, while it was 95%, 99%, and 98% after the discussion. After resolving differences in coding whenever possible, the qualitative content analysis generated 71 codes.

At the end of the qualitative content analysis, I invited two Associate Professors, one with expertise in school leadership and the other in organizational behavior, to evaluate the 71 codes and their corresponding themes. During this step, we also discussed differences in coding, which were resolved whenever possible. After several iterations, the themes of teacher leadership of the qualitative phase of the study was established, including: school-level leadership, peer-level leadership, and building relationships with parents.

3.4.7 Trustworthiness of the Study

In this study, Anney's (2014) four trustworthiness criteria were considered, i.e. credibility, transferability, dependability, and confirmability (see Table 6).

This study used member checking and data triangulation to demonstrate the credibility of the findings. Regarding member checking, all research participants (i.e. principals, middle leaders, and classroom teachers) were consulted to verify the accuracy of the transcripts and the data interpretation. In terms of data triangulation, the responses of three types of school stakeholders from the same preschool were analyzed individually and in subgroups, as appropriate. For example, the interview question "what do you do to promote staff members' professional development?" asked to principals was triangulated by asking their staff members "what does your principal do to promote your professional development?"

Table 6

Trustworthiness Criteria of Qualitative Findings (Anney, 2014)

Criteria	Definition	Strategies
Credibility	The extent of the truth of the research findings	<ul style="list-style-type: none"> • Prolonged and varied field experience • Triangulation • Member checks
Transferability	The degree to which the findings can be transferred to other contexts	<ul style="list-style-type: none"> • Thick description • Purposeful sampling
Dependability	The stability of findings over time	<ul style="list-style-type: none"> • Audit trail • Stepwise replication • Code-recode
Confirmability	The degree of neutrality of the findings	<ul style="list-style-type: none"> • Building rapport and trust • Good interview technique • Safeguarding informants' identity

Purposeful sampling was used to select participants, as mentioned in Section 3.4.1, to measure the transferability of the findings. Moreover, code-recode and stepwise replication were used to guarantee dependability. As mentioned earlier, I invited a PhD student to help with coding independently and cooperatively, which revealed a good inter-coder agreement. In terms of confirmability, as described in Section 3.4.3, the study sought to build rapport and trust by protecting the identity of research participants.

3.5 Quantitative Study

The findings of the qualitative study were used to develop the Teacher Leadership Scale and identify the factors influencing various school stakeholders' perceptions of teacher leadership, conducted in the quantitative phase. The purpose of the quantitative study was to answer the following research questions:

RQ2: “Are there differences in the perceptions of various school stakeholders on teacher leadership?”

- *H1*: There are differences in teacher leadership as perceived by various school

stakeholders with different job positions.

- *H2*: There are differences in teacher leadership as perceived by various school stakeholders with different professional qualifications.
- *H3*: There are differences in teacher leadership as perceived by various school stakeholders with different years of teaching experience.
- *H4*: There are differences in teacher leadership as perceived by various school stakeholders with different types of employment.
- *H5*: There are differences in teacher leadership as perceived by various school stakeholders in public and private preschools.

RQ3: “What are the factors that influence teacher leadership as perceived by various school stakeholders?”

3.5.1 Sample and Procedure

The study was conducted in preschools in Xiamen city, China. As mentioned in Section 3.3, there were 674 preschools, including 304 public preschools and 370 private preschools and 7,451 full-time preschool staff members in Xiamen city in 2014.

Basically, there are two sampling methods: random sampling and non-random sampling (Lodico, Spaulding, & Voegtle, 2010; O’Dwyer & Bernauer, 2013). Random sampling requires a sampling frame that refers to the source of material from which a sample is taken (Lodico, Spaulding, & Voegtle, 2010). The sampling frame in this study was the list of preschools in Xiamen city. However, the Education Bureau of Xiamen city does not publicly publish this list. Under these circumstances, the complete list of samples was not available for this study. Therefore, I used quota sampling, a type of non-random sampling to select participating schools. The quota sampling method requires the researcher to first identify

relevant sample categories and then determine the number of samples in each category (O'Dwyer & Bernauer, 2013). As a result, I first divided the sample into public and private schools and then invited a researcher from the Xiamen Institute of Education Science Research to distribute the TLS in each selected preschool. Given the human limits of the researcher, she was advised to use a convenience sampling method, another type of non-random sampling in which only members of the target population who meet certain practical criteria, such as easy accessibility, availability at a given time, or the willingness to participate, are included in the study (Dörnyei, 2007).

The internet survey collected data using the So-Jump software (*Wenjuanxing*). After the questionnaire information (e.g. instruction, items) was entered into the So-Jump software, a QR code was generated. Research participants could access the questionnaire by scanning the QR code using their cell phones. After completing the questionnaire, by clicking on the “submit” button, the data were automatically transferred to the So-Jump software.

The So-Jump software was used because, first, it allowed research participants to complete the questionnaire via their cell phones. Second, it guaranteed that there were no missing data, as the questionnaire could not be submitted unless all items had been completed. Third, I did not have to enter the quantitative data in SPSS 24.0, which prevented data entry errors.

It should be noted that using So-jump software might have some weaknesses like low response rate. To avoid this, three days after delivering the questionnaire, letters were sent to the principals to thank those who had already completed the survey and asked the principals to remind those who had not yet completed the survey to do so at their earliest convenience. Finally, the response rate in the main study was 91%.

Based on the different objectives of each segment (i.e. scale development, main study), the

sample was selected differently four times (see Table 7). The first time, the Teacher Leadership Scale (TLS) questionnaire was administered to 120 respondents for the exploratory factor analysis (EFA 1). The second time, the questionnaire was administered to 305 respondents for EFA 2. The third time, the questionnaire was administered to 317 respondents and included an 18-item TLS survey, a 6-item survey on Power Distance (PD), an 8-item survey on School Culture Scale (SCS), and a 3-item survey on Authority Openness (AO). As PD, SCS, and AO have been established in the current literature, this study tested their psychometric properties. The fourth time, the questionnaire with TLS, PD, SCS, and AO was administered to 70 preschools (30 public and 40 private), with a total of 918 respondents participating in the main study.

Table 7

Quantitative Study Sample

Segments	Purpose	Preschools	Samples
Scale Development	Exploratory Factor Analysis 1	5 public and 5 private	120
	Exploratory Factor Analysis 2	10 public and 10 private	305
	Confirmatory Factor Analysis	10 public and 10 private	317
Main Study	Hypothesis Testing	30 public and 40 private	918

3.5.2 Instruments

The questionnaire survey was necessary to answer *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?” and *RQ3*: “What are the factors that influence teacher leadership as perceived by various school stakeholders?”. As mentioned in Section 1.2, little research has analyzed teacher leadership in ECE in China and the unspecific factors influencing teacher leadership, resulting in the need to identify the appropriate scales to examine *RQ2* and *RQ3*. In this study, as mentioned in Section 3.1, the

pragmatic approach guided the research questions and research methods by combining qualitative and quantitative research in a sequential model in which the deductive goals of quantitative research were based on the inductive findings of qualitative research (Ivankova, Creswell, & Stick, 2006; Morgan, 2007). As a result, the qualitative findings were used to examine *RQ2* and *RQ3*.

The instruments in this study included the Teacher Leadership Scale and three current scales used to examine the influencing factors of teacher leadership identified in the qualitative study, as mentioned in Section 4.3.1. These three scales included Power Distance, School Culture, and Authority Openness. The demographic information of the respondents was attached at the end of the questionnaire (see Appendix B).

Teacher Leadership Scale. An 18-item Teacher Leadership Scale, which was self-administered was used. The TLS had three dimensions: staff management and development (eight items), peer learning and support (seven items), and communication with parents (three items). The example item for staff management and development was “I participate in the school curriculum reform.” The example item for peer learning and support was “I attend my colleagues’ class to give them advice.” Finally, the example item for communication with parents was “I professionally help parents guide their children’s development.” A 6-point Likert-type response format was used, ranging from “never” (0) to “always” (5). In the study, the coefficient alpha of TLS was .94. The Teacher Leadership Scale development process will be discussed below.

To develop the TLS to test the hypotheses, I followed the steps proposed by Brown, Treviño, and Harrison (2005) (Table 8). In addition, I drew on the requirements of scale reliability and validity proposed by Bhattacharjee (2012). Therefore, the instrument for this study was developed in four steps using different sample (see Table 7).

Table 8

Summary of Teacher Leadership Scale Development (Adapted from Brown, Treviño, & Harrison, 2005)

Steps	Action and variables	Data/sample
Step 1	<ul style="list-style-type: none"> • Item pool generation = 71 items • Expert rating of content adequacy • 60 items remained 	<ul style="list-style-type: none"> • Qualitative coding (see qualitative data analysis) • One leadership expert, two doctoral students, and three school practitioners
Step 2	<ul style="list-style-type: none"> • EFA 1 for 60 items • 37 items remained 	<ul style="list-style-type: none"> • N = 120 school stakeholders (five public and five private preschools)
Step 3	<ul style="list-style-type: none"> • EFA 2 for 24 items • Expert rating of content adequacy • 18 items remained 	<ul style="list-style-type: none"> • N = 305 school stakeholders (10 public and 10 private preschools) • One leadership expert and one doctoral student
Step 4	<ul style="list-style-type: none"> • CFA for 18 items 	<ul style="list-style-type: none"> • N = 317 school stakeholders (10 public and 10 private preschools)
Step 5	<ul style="list-style-type: none"> • Psychometric properties estimation 	<ul style="list-style-type: none"> • Use the same sample as Step 4

Step 1. Item Pool Generation and Expert Rating

In Step 1, the item pool to assess participants' perceptions of teacher leadership was developed based on the themes generated in the qualitative data analysis.

I invited one leadership expert and one doctoral student to help develop the questionnaire items. A 71-item survey was initially developed in a group discussion between our three members. To improve face validity, one Associate Professor with expertise in organizational behavior, two doctoral students, and three school practitioners (one principal, one senior teacher, and one classroom teacher) were asked to evaluate the instrument's content adequacy (e.g. item scope, item language). Once face validity was established, a 60-item survey was conducted on a larger sample (see Step 2) to test the validity of the scale.

Step 2. Scale Administration for EFA 1

After constructing the 60-item survey in Step 1, it was administered to a sample of 120 participants using quota sampling and convenience sampling methods. Although the first EFA had a smaller sample size, it helped “achieve a meaningful interpretation of the observed variables through the factors” (Wan, Law, & Chan, 2018, p. 113). Similarly, Brown et al. (2005) administered a 48-item survey to 154 students, while Wan et al. (2018) conducted a 64-item survey on 155 teachers. In this study, each item was rated using a 6-point Likert-type response format ranging from “never” (0) to “always” (5). I chose not to show a “neutral” response in the scale to “force” respondents to make a decision that “can help shed some light on the situation and assist the author with the task of making a decision” (Lodico, Spaulding, & Voegtle, 2010, p. 108). Maximum likelihood estimation with oblique rotation was used in EFA 1 (Costello & Osborne, 2005). After deleting items that did not load strongly on the primary factor ($< .3$) or cross-loaded on multiple factors, 37 items remained.

Step 3. Scale Administration for EFA 2

Earlier recommendations for item-to-response ratios ranged from 1:4 to at least 1:10 (Hinkin, 1998). Using quota sampling and convenience sampling methods, 20 preschools (10 public and 10 private) were selected for questionnaire administration. I included the proposed 37-item measure in a survey administered to a sample of 305 school stakeholders, with an item-to-response ratio of 1:8.

After performing another EFA using maximum likelihood estimation with oblique rotation, 13 items (q2, q6, q7, q9, q11, q18, q23, q24, q26, q28, q29, q30, and q38) that did not load strongly on the primary factor ($< .3$) or cross-loaded on multiple factors were deleted. Finally, 24 items loaded strongly on three components (.5 and above). To improve face validity, I also

invited one leadership expert and one doctoral student to rate the content adequacy of each item. After this step, 6 items (q8, q12, q16, q20, q25, and q27) were deleted. Finally, there were 18 items left (see Table 9). Bartlett's test of sphericity showed that $\chi^2 = 3423.98$, while Kaiser-Meyer-Olkin = .93, both statistically significant ($p < .001$).

Table 9

Factor Loadings of Teacher Leadership Scale (n = 305)

	Component		
	SMD	PLS	CP
q3 I am involved in discussions about staff-personnel decisions	.660		
q10 I encourage my colleagues to carry out seminars	.582		
q13 I invite experts to give professional training to teachers	.760		
q14 I can lead teamwork	.808		
q15 I encourage my colleagues to attend and evaluate classroom teaching	.851		
q17 I am involved in the election of preschool leaders	.745		
q19 I attend my colleagues' class to give them advice	.725		
q22 I assign tasks to colleagues based on specific circumstances	.568		
q31 I share teaching views with my colleagues		.675	
q32 I create an environment for my colleagues to share their talents		.707	
q33 I seek teaching suggestions by organizing demonstration lessons		.749	
q34 I share teaching views in the Teaching Research Group		.707	
q35 I encourage my colleagues to do what they are good at		.759	
q37 I help novice teachers understand the school curriculum		.754	
q40 I give advice to my colleagues on teaching		.765	
q1 I communicate patiently with parents in case of contradiction			.720
q4 I professionally help parents guide their children's development			.668
q21 I give parents feedback on their child's performance			.585

Note: SMD = staff management and development; PLS = peer learning and support; CP = communication with parents

As shown in Table 9, the three dimensions of TLS were school management and development, peer learning and support, and communication with parents. Cronbach's Alpha = .93 showed

excellent internal consistency, indicating that the TLS measured by these 18 items formed a coherent construct.

Step 4. CFA for 18 items

After conducting quota sampling and convenience sampling methods, Step 4 consisted of a confirmatory factor analysis (CFA; *Figure 3*) using the data from 317 respondents from another 20 preschools (10 public and 10 private).

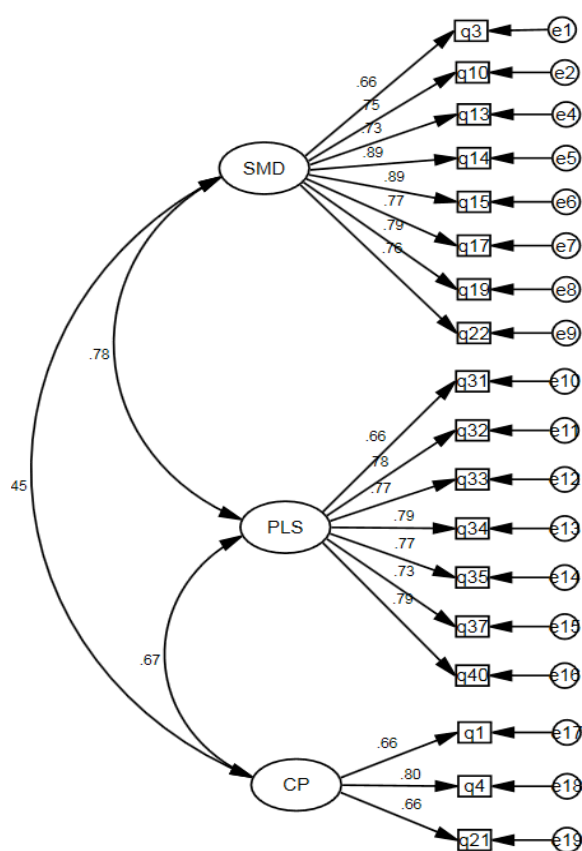


Figure 3. Confirmatory Factor Analysis for Teacher Leadership Scale

Although a chi-square test is commonly used to test the model fit of scale, it is sensitive to sample size. According to Bollen (1989), the minimum sample size for CFA is 100. Given the large size of the dataset in this study ($n = 317$), I rejected the chi-square test in the analytical strategy. Instead, I used the comparative fix index (CFI), the normed fix index (NFI), and the

root mean square error of approximation (RMSEA) to assess the model fit (Hu & Bentler, 1999). The model fit suggested good construct validity for the TLS three-factor model, with CFI = .95, NFI = .91, and RMSEA = .06 (Hu & Bentler, 1999).

Step 5. Psychometric Properties Estimation

Reliability and validity, jointly called the psychometric properties of scales, are the yardsticks against which the adequacy and accuracy of scale procedures are evaluated in scientific research (Bhattacharjee, 2012). To test the psychometric properties of the newly-developed TLS, I drew on the requirements of scale reliability and validity proposed by Bhattacharjee (2012).

Reliability estimation. Reliability is the degree to which the measure of a construct is consistent. Internal consistency reliability, a consistency measure between the different items of the same construct, is commonly used to measure scale reliability.

Table 10

Reliability of Teacher Leadership Scale (n = 317)

	Staff management and development	Peer learning and support	Communication with parents	TLS
Cronbach's alpha	.93	.90	.78	.93

Cronbach's alpha = .93 (see Table 10) showed the overall reliability of TLS, with a value of .93 for staff management and development, .90 for peer learning and support, and .78 for communication with parents, indicating that the TLS was a coherent construct.

Validity estimation. Validity refers to the extent to which a measure adequately represents the underlying construct that it measures.

- a. Content validity: whether the construct is theoretically sound, and the items adequately represent the construct.

To increase the content validity of TLS, a comprehensive review of the literature was conducted. As a result, the spheres of influence of teacher leadership were established and provided a coding scheme for qualitative data analysis, which was used to develop the construct.

- b. Face validity: whether the items can be interpreted meaningfully by the research participants.

As mentioned earlier, the expert rating approach was used in the scale development process (i.e. Step 1 and Step 3) to ensure that the wording of the items was easy to understand. The final version of the TLS consisted of 18 items scored on a 6-point frequency response scale: “never,” “very rarely,” “rarely,” “sometimes,” “often,” and “always.”

- c. Convergent and discriminant validity

The data collected from 317 school stakeholders were analyzed to measure convergent validity and discriminant validity. Convergent validity indicates that items in a construct should be strongly correlated, while discriminant validity means that items in different constructs should not be strongly correlated. Maximum likelihood estimation with oblique rotation was used to test convergent validity and discriminant validity.

The results (see Table 11) showed that items belonging to a common construct exhibited factors loadings of .50 or above, indicating adequate convergent validity, whereas for discriminant validity, the factor loadings of these items were .30 or less on all other constructs.

- d. Criterion-related validity: whether a given measure relates to a current and future criterion, respectively called concurrent and predictive validity.

Table 11

Exploratory Factor Analysis for Convergent and Discriminant Validity (n = 317)

	Component		
	SMD	PLS	CP
q3 I am involved in discussions about staff-personnel decisions	.735	.064	-.031
q10 I encourage my colleagues to carry out seminars	.593	-.159	.135
q13 I invite experts to give professional training to teachers	.764	.026	-.015
q14 I can lead teamwork	.860	-.014	.062
q15 I encourage my colleagues to attend and evaluate classroom teaching	.813	-.099	.015
q17 I am involved in the election of preschool leaders	.792	.043	.052
q19 I attend my colleagues' class to give them advice	.635	-.227	-.015
q22 I assign tasks to colleagues based on specific circumstances	.534	-.288	.023
q31 I share teaching views with my colleagues	-.061	.634	.145
q32 I create an environment for my colleagues to share their talents	.162	.746	-.120
q33 I seek teaching suggestions by organizing demonstration lessons	.027	.671	.128
q34 I share teaching views in the Teaching Research Group	.104	.606	.175
q35 I encourage my colleagues to do what they are good at	-.032	.825	-.037
q37 I help novice teachers understand the school curriculum	.241	.537	.030
q40 I give advice to my colleagues on teaching	.141	.689	.008
q1 I communicate patiently with parents in case of contradiction	.085	.042	.651
q4 I professionally help parents guide their children's development	.154	.036	.776
q21 I give parents feedback on their child's performance	-.199	-.250	.588

Note: SMD = Staff management and development; PLS = Peer learning and support; CP = Communication with parents

As previously mentioned, influencing factors were identified in the qualitative study, including Power Distance, School Culture, and Authority Openness. As the current scales for measuring these three factors are well established and have been used in leadership studies, this study tested their reliability.

Power Distance (PD). The 6-item measure of PD developed by Dorfman and Howell (1988) was used. The example item for PD was “Supervisors should make most decisions without consulting subordinates.” A 6-point Likert-type response format was used, ranging from “strongly disagree” (1) to “strongly agree” (6). In the study, the coefficient alpha of PD was .77.

School Culture Scale (SCS). The 21-item measure of SCS developed by Zhu, Devos, and Tondeur (2014) for Chinese primary schools was used in this study. The SCS includes five dimensions: goal orientation, supportive leadership, participative decision making, innovation orientation, and formal relationship. Previous studies have identified supportive leadership (five items) and participative decision-making (three items) as dimensions of school culture in preschools in Shanghai, China (Qian, Jiang, & Ruan, 2007). Hence, these two 8-item dimensions were used. The example item for supportive leadership was “Our principal goes out of his/her way to help teachers,” and the example item for participative decision-making was “Our principal encourages staff members to take initiative.” A 6-point Likert-type response format was used, ranging from “strongly disagree” (1) to “strongly agree” (6). In the study, the coefficient alpha of SCS was .90.

Authority Openness (AO). The 3-item measure of AO developed by Ashford et al. (1998) was used. These three items were “Our principal is open to new ideas,” “Our principal is receptive to suggestions,” and “Our principal is interested in our ideas.” A 6-point Likert-type response format was used, ranging from “strongly disagree” (1) to “strongly agree” (6). In the study, the coefficient alpha was .86.

3.5.3 Data Cleansing

Data cleansing is the process of detecting and correcting inaccurate records in a database and

refers to identifying incomplete, incorrect, inaccurate or irrelevant portions of the data and then replacing, modifying, or deleting the dirty data (Wu, 2013). In this study, the data screening process revealed that all of the survey items were answered, therefore there were no missing values. In addition, the So-Jump software was able to identify the answers given by each respondent, on the basis of which I deleted questionnaires in which the answers were identical, such as “5.” This process cleaned up the dirty data generated by the research participants who casually completed the questionnaire.

3.5.4 Data Analysis

The data analysis strategies used in the quantitative study are summarized in Table 12.

Table 12

Summary of Data Analysis in the Quantitative Study

	Analytical Strategies	Statistical Software
Scale Development	EFA; Reliability tests; CFA	SPSS 24.0; Amos 21.0
<i>RQ2</i> : Are there differences in the perceptions of various school stakeholders on teacher leadership?	Independent-samples T test; ANOVA	SPSS 24.0
<i>RQ3</i> : What are the factors that influence teacher leadership as perceived by various school stakeholders?	Correlation matrix; SEM	SPSS 24.0; Mplus 7.0

In the TLS development stage, maximum likelihood estimation with oblique rotation was used for the exploratory factor analysis (EFA; Costello & Osborne, 2005). A conventional approach was adopted to determine the number of potential factors and their members: factors had to have (1) three or more conceptually aligned items, (2) items with regression loadings > 0.30 , and (3) cross-loadings < 0.30 (Bandalos & Finney, 2010). Confirmatory factor analysis (CFA) was used to test the consistency of the scale that fitted a hypothesized measurement model (Brown & Moore, 2012).

In the main study, different analytical approaches were used to test the hypotheses. To test *H1* to *H4*, a one-way analysis of variance (ANOVA) was conducted. Factor scores were computed by calculating the means of all responses composing each factor. For example, the factor score for communication with parents was determined by calculating the mean of the responses for Questions 1, 4, and 21. In addition, an independent samples T test was used to test *H5*. Structural equation modeling (SEM), which combines factor analysis and multiple regression analysis to analyze the structural relationships between multiple observed variables in one model (Bowen & Guo, 2011), was used to examine the factors that influence teacher leadership as perceived by various school stakeholders.

It should be noted that different analytical approaches were run through different statistical packages. EFA, descriptive statistics (i.e. means and standard deviation), scale reliability tests, correlation matrix, independent samples T test, and ANOVA tests were performed using the Statistical Package for the Social Sciences version 24.0 (SPSS 24.0). In addition, AMOS version 21.0 was used to run CFA. Finally, Mplus version 7.0 was used to conduct SEM to examine the factors that influence teacher leadership as perceived by various school stakeholders.

3.6 Ethical Considerations

Bogdan and Biklen (2007) proposed two guidelines on ethical research: informed consent of participants and minimization of potential harm to participants. In the informed consent step, preschool principals received the Human Research Ethics Review Application Form developed by The Education University of Hong Kong (see Appendix C) to inform them of this study.

As the study used interviews and a questionnaire, processing was conducted ethically to

minimize potential harm to participants. Before the interviews, each research participant received a consent form, stating the purpose of the study and including a guarantee of confidentiality and anonymity. Recordings were conducted only with the permission of the participants. After the interviews, the research participants were again informed that their responses were confidential, and I gave them my telephone number in case they had additional information to share. The questionnaire was also anonymous, as indicated in the questionnaire guidelines. Preschool principals were asked to help distribute the online questionnaire, so that I could not learn anything about the participants other than the information they shared in the questionnaire. Finally, all of the data collected were kept confidential.

3.7 Summary

Based on the research questions, this study adopted the pragmatic paradigm, which combines qualitative and quantitative research. A mixed-methods sequential exploratory design was used. As a result, the findings of the qualitative study were used to develop the scale to measure the perceptions of teacher leadership and to identify its influencing factors, which was then used during the quantitative study. Xiamen city in China was selected as the research site. During the qualitative study, semi-structured interviews were conducted, always keeping in mind of the code of ethics for researchers.

Chapter 4 Findings

This study used a mixed-methods sequential exploratory design. In Phase One (qualitative study), the data were collected using semi-structured interviews. The obtained qualitative findings were used to develop the Teacher Leadership Scale and to identify the factors influencing teacher leadership as perceived by various school stakeholders, which was then used in Phase Two (quantitative study). The findings of each research question are discussed below.

4.1 RQ1: How is Teacher Leadership Perceived by Various School Stakeholders in Preschools in China?

The qualitative study used semi-structured interviews with 21 school stakeholders (i.e. principals, vice-principals, key stage coordinators, senior teachers, and teachers) in preschools. Using a qualitative content analysis, different codes were identified in relation to particular themes: school-level, peer-level, and building relationships with parents. Although seven preschools were investigated in this study, I tried to “build a general explanation that fit each of the individual cases, even though the cases vary in their details” (Yin, 1994, p. 112), as the differences between individual cases would be compared later in the quantitative study.

The qualitative content analysis revealed three themes of teacher leadership: school-level leadership, peer-level leadership, and building relationships with parents. These themes were then used to develop a 71-item pool for the Teacher Leadership Scale (TLS). Table 13 presents the codes of each sub-theme for each theme. The TLS was then used for the quantitative study (see details in Appendix B).

Table 13

Themes, Sub-themes & Codes of Teacher Leadership Perceptions

Themes	Sub-themes	Codes
School-level	Staff management	<ul style="list-style-type: none"> • Assign tasks to teachers • Vote for school middle leaders • Take on a leadership role in administrative matters • Share views on school development with leaders • Participate in staff-personnel management • Lead a work group • Conflict management • Arouse colleagues' enthusiasm
	Teacher professional development	<ul style="list-style-type: none"> • Lead the Teaching Research Group • Invite experts for teacher training • Lead teachers in classroom teaching observation and evaluation • Lead teachers to share professional knowledge • Lead teachers to participate in research projects
	Curriculum and pedagogy	<ul style="list-style-type: none"> • Select and develop the curriculum based on children's interests • Select and develop the curriculum based on children's needs • Change education modes to meet children's needs • Put education ideas into practice • Apply effective evaluation methods • Improve the learning environment to better educate children • Focus on the formation of children's habits

Leading school change

- Change irrational rules
- Discuss curriculum innovation
- Participate in the design of school activity schemes
- Explore and innovate classroom management approaches

Peer-level

Professional support

- Provide instructional suggestions to novice teachers
- Help novice teachers understand the school curriculum
- Invite novice teachers to attend demonstration lessons
- Share current findings in education with colleagues
- Coordinate teaching tasks with colleagues
- Coordinate classroom management with colleagues
- Follow the professional growth of colleagues
- Follow the education issues of colleagues
- Attend my colleagues' class to give them advice
- Share learning experience with colleagues
- Share teaching experience with colleagues
- Share professional knowledge in the Teaching Research Group
- Share experience of parental work with colleagues

Respect for diversity

- Learn about the teaching experience of others
- Seek suggestions by attending demonstration lessons
- Share different teaching views with colleagues
- Seek suggestions from colleagues to improve teaching schemes
- Discuss teaching views with colleagues
- Discuss teaching strategies with colleagues
- Discuss parental work with colleagues

	Role model	<ul style="list-style-type: none"> • Continuous improvement • Self-awareness and management • Regulate bad behaviors • Well-established work plan
	Individualized support	<ul style="list-style-type: none"> • Take care of colleagues when they have problems in life • Take care of colleagues when they have problems at work • Remind colleagues to change inappropriate behaviors
	Empowerment	<ul style="list-style-type: none"> • Encourage colleagues to build their confidence • Encourage colleagues to share their talents • Create opportunities for colleagues to share their talents • Encourage colleagues to improve their professional qualifications
Building relationships with parents	Parent involvement	<ul style="list-style-type: none"> • Motivate parents to participate in school activities • Seek suggestions from parents
	Communication with parents	<ul style="list-style-type: none"> • Help parents educate their children • Communicate with parents about conflict • Provide feedback to parents on their children's school performance • Communicate with parents based on their points

4.1.1 School-level Teacher Leadership

School-level teacher leadership refers to how teacher leaders use strategies to promote school development and improvement at the organizational level. In this study, it included staff management, teacher professional development, curriculum and pedagogy, and leading school change.

In the study, staff management, including supervisory responsibilities (Richman et al., 1988), was identified as a key component in school leadership (Kwan & Walker, 2008). However, as staff management involved the management of subordinates in the organization, it was mainly exercised by preschool principals. In contrast, school stakeholders with no management position (classroom teachers) had few opportunities to participate in staff management.

As a classroom teacher, my job is to educate and care for the children in my class.

The majority of school-level decisions, such as voting for middle leaders and staff-personnel matters, are directly handled by my principal, who organizes executive meetings attended only by the vice-principal and key stage coordinators (Teacher Q).

Teacher professional development was led by teacher leaders in formal positions (i.e. vice-principals, key stage coordinators, senior teachers) because preschool principals could give them the power and authority to implement leadership practices, such as organizing the Teaching Research Group, inviting experts for teacher training, leading teachers in classroom teaching observation and evaluation, sharing professional knowledge, and participating in research projects. However, among these various leadership practices, some preschool principals did not fully distribute their power and authority to teacher leaders leading TRG.

Although I am a Senior Teacher responsible for leading the Teaching Research Group, the research topics are decided by my principal. I only act as an “organizer” (Senior Teacher N).

Regarding curriculum and pedagogy leadership, some research participants performed well in terms of selecting and developing a curriculum, changing education modes to meet children’s needs, and so on. Key Stage Coordinator H reported the following:

If the curriculum is designed by teachers themselves, it may go against the developmental needs of children and may inhibit their learning interests. I prefer to design the curriculum based on children’s interests. I also develop the curriculum by taking advantage of nature around my school (Key Stage Coordinator H).

Research participants could also lead school change by changing irrational rules, curriculum innovation, participating in the design of school activity schemes, and exploring and innovating classroom management approaches. However, few research participants mentioned their leading school change initiatives. Instead, some suggested that leading school change primarily depended on change agency, referring to individuals with responsibilities for leading school change (Harris & Muijs, 2004).

I am a human being who wants to make changes. If I find that there is something irrational in my work, I will find a solution to deal with it (Teacher P).

I only follow the school regulations. I have a lot of work to do every day. Therefore, I do not want to think about how to make changes (Teacher Q).

I am a classroom teacher responsible for classroom teaching. This job position makes me think that making school changes is not my responsibility (Teacher U).

In light of this discussion, the findings revealed that in the top-down management system of ECE in China, power and authority played an important role in school-level leadership. Principal G and Teacher P believed that only those with authority and power could lead others. Therefore, these findings indicated that research participants without a formal position had few opportunities to participate in managerial leadership, but they had autonomy in curriculum and pedagogy innovation.

4.1.2 Peer-level Teacher Leadership

Compared with the authority and power of school-level leadership, peer-level leadership generally indicates that most school stakeholders do not engage in any type of hierarchical relationship with their peers (Fairman & Mackenzie, 2015). Nevertheless, in peer-level leadership in this study, research participants were able to provide professional support, respect diversity, establish role models, provide individualized support, and empower others. Given the way information was transferred, peer-level leadership to provide professional support was based on problem solving and expertise.

Problem-solving-based leadership indicates that the suggestions and teaching experience of peers are related to teaching issues and improving the quality of teaching. Through problem-solving-based leadership, group members can ask questions, gather information, discuss among themselves, propose solutions, and share results, thereby further training group members to solve problems (Hou, Chang, & Yao-Ting, 2008). In the study, many research participants reported that they were happy to share their teaching experience with their peers. Even principals played a peer role in problem-solving-based leadership.

I share my teaching experience with teachers, and then ask them “what do you think of my opinion” and “do you have any questions?” (Principal C).

A particular example of problem-solving-based leadership highlighted by the research participants in the study was providing guidance to novice teachers. Almost all of the selected preschools had a system called “veteran guides novice” (*Yi Lao Dai Xin*). Senior Teacher K explained how this system worked:

The novice teachers at my school are trained with the *Yi Lao Dai Xin* system. We arrange them to teach in a class guided by a veteran teacher. In the first two weeks, they only need to observe how the veteran teacher teaches. After observing, they share their thoughts with the veteran teacher. In the third week, they have an opportunity to teach under the guidance of the veteran teacher. In the fourth week, they must play a leading role in teaching, while the veteran teacher acts as an observer and helps, if necessary (Senior Teacher K).

Key Stage Coordinators I and K with 7 to 10 years of teaching experience also shared their experience on providing professional support to novice teachers, such as sharing classic teaching cases, model lessons, and lesson plans. This system did not make novice teachers feel a hierarchical relationship with their guides, which was beneficial for their professional development. Teacher O with 1 to 3 years of teaching experience reported the following:

The first year I came to my school as a teacher, one of the veteran teachers really helped me. She provided valuable suggestions and comments on my teaching. In my mind, she was more of a tutor than a leader, which did not make me feel nervous when communicating with her... Instead, we were more like friends (Teacher O).

The leadership responsibilities of multiple individuals within a team are rooted in the most relevant expertise to the given problem (Friedrich et al., 2009). Expertise-based leadership in

this study revealed that research participants were willing to help their peers based on their own expertise (e.g. research work, computer technology, parental work). The findings showed that all school stakeholders had the potential to help others, regardless of position, teaching experience, educational attainment, and so on. For example, Teacher O who had 1 to 3 years of teaching experience explained the following:

Although I am a novice teacher in my school, I always help my peers with literature reviews during research projects because when I was an undergraduate, I had experience in academic work (Teacher O).

Respect for diversity suggests that teacher leaders respect and respond to differences in perspectives (Katzenmeyer & Moller, 2009). In this study, the findings showed that most research participants sought teaching suggestions from their peers and discussed or shared different views with their peers, resulting in knowledge exchange that promoted the professional development of teachers.

Role model refers to the extent to which teacher leaders set an example for the faculty and staff to follow (Kouzes & Posner, 2003). The findings revealed that managing self-development was the main perceived way to establish a role model. Research participants believed that only by performing well themselves could they act as a leader among their peers. Therefore, they could improve their performance through continuous improvement, self-awareness and management, regulation of bad behaviors, and a well-established working plan. In addition, research participants mentioned that one way to continually improve was to attend training programs to gain professional knowledge.

As a principal, I need to have more [professional knowledge] than teachers.

Therefore, I always attend training programs organized by the local government

and the Education Bureau (Principal C).

I welcome every opportunity to attend training programs to gain professional knowledge and learn about the teaching experience of others to improve my own professional development. After the training programs, I am always happy to share valuable learning experiences with my school peers (Key Stage Coordinator I).

Other research participants, such as Key Stage Coordinator I, Teacher O, and Teacher R, indicated that they tended to see their peers with specific expertise as role models. Based on these role models, they made efforts to meet expectations that they thought conformed to a role model standard. In turn, they could become a role model for others.

Individualized support indicates that teacher leaders respect individual staff members and care about their feelings and needs (Leithwood, 1994). Some participants took care of their colleagues when they had problems in life and work and also reminded them to change inappropriate behaviors.

As a principal, I do not only ask my staff members to teach, I am also concerned about their life and work problems. I think that only when people are in a good mood can they work well at school. Therefore, I encourage my staff members to tell me about their problems if necessary (Principal D).

If I find that some of my colleagues showed inappropriate behaviors to children, I let them analyze the possible negative effect (Teacher S).

Empowerment refers to the degree to which teacher leaders support and motivate staff members and empower them to become leaders (Kouzes & Posner, 2003). In this study, research participants could play a facilitating role by encouraging their peers to share their

talents. As a result, they helped their peers recognize their leadership roles within the school and build their confidence, to some extent.

I think everyone has their own leadership capacity. When our school organizes activities or group work, I like to encourage my peers who are good in a particular area to be the leaders, because under their guidance, the work becomes more effective (Teacher Q).

To summarize, peer-level leadership was based on a non-hierarchical relationship between various school stakeholders. In peer-level leadership, the various school stakeholders could establish supportive relationships of sharing, communication, collaboration, and modeling.

4.1.3 Building Relationships with Parents

Research participants often mentioned building close relationships with parents in the study. According to them, this could promote the development of children by building a school-family network. The main way to build relationships with parents was to establish close communication with parents to share their professional education expertise with them. All research participants indicated that it was extremely important to build good relationships with parents, because school and family were the two main places of education for children. To build the school-family network, schools maintained close communication through various channels, such as open days, parent meetings, and phone calls.

For public preschools, research participants suggested that it was necessary to rectify certain concepts of parental education. By providing professional education knowledge to parents, research participants helped strengthen their role as professional educators, thus establishing good relationships with parents.

Parents generally focus on their children's academic achievement, but they often

ignore the importance of children's learning habits. Conflicting educational concepts may hinder the implementation of our curriculum. Hence, we often try to change parents' educational concepts by organizing activities, such as parent-child games, to show them that learning habits and interests are more important than academic achievement. As a result, we can see that some parents are gradually changing their ways of educating children (Key Stage Coordinator H).

For private preschools, building close relationships with parents seems even more important, as their operating funds depend on parents' charge. However, participants from private preschools, including principals, found it difficult to communicate with parents, because parents were highly educated and required high-quality school services for their children.

Today, some parents are not friendly. They have different types of service requirements that I must satisfy. They often do not consider your situation, and their requirements are actually difficult to reach. Generally, I find it really difficult to communicate with them (Principal E).

In addition to being highly educated, other characteristics of parents (e.g. age, socioeconomic status) hindered communication with private school stakeholders, as reported by Principal D and Senior Teacher K. Key Stage Coordinator M also indicated the following:

In my class, some parents were born in the 1990s. They are like children. They often lack expertise and experience in the education of their children. One of their educational tools is to spoil their children. Therefore, I always find that communicating with them is really difficult (Key Stage Coordinator M).

The other way of building relationships with parents was to promote parent involvement, for

example by motivating them to participate in school activities and encouraging them to offer advice and suggestions for school development. This strategy helped parents recognize their key role in promoting children's development by building collaborative relationships with the school.

4.1.4 Summary of *RQ1* Findings

RQ1: “How is teacher leadership perceived by various school stakeholders in preschools in China?” identified three teacher leadership themes based on qualitative content analysis: school-level leadership, peer-level leadership, and building relationships with parents.

In school-level leadership, various school stakeholders demonstrated leadership in staff management, teacher professional development, curriculum and pedagogy, and leading school change.

With respect to peer-level leadership, school stakeholders established a supportive relationship with their peers by providing professional support, respecting diversity, establishing role models, providing individualized support, and empowering others.

Finally, school stakeholders built relationships with parents in two ways: communicating with parents and promoting parent involvement.

4.2 *RQ2*: Are There Differences in the Perceptions of Various School Stakeholders on Teacher Leadership?

To examine *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?”, the Teacher Leadership Scale (TLS) was developed to test *H1* to *H5*, which were generated from the literature review, as showed in Section 3.5.

4.2.1 Sample and Analytical Strategy for Hypothesis Testing

After developing the TLS, I distributed the scale to 70 preschools (30 public and 40 private) using quota sampling and convenience sampling methods. A total number of 1,007 samples were asked to complete the survey. Finally, 918 respondents participated in the main study (see Table 14), showing that the response rate was 91%.

Table 14

Demographic Information of Respondents for Hypothesis Testing (n = 918)

	Public Preschools	Private Preschools	Total	
	n	n	n	Percentage
Job Positions				
Principal	30	40	70	16.2
Middle leader	82	105	187	11.8
Teacher	327	334	661	72.0
Teaching Experience (TE)				
TE < 1 year	45	72	117	12.7
1 ≤ TE < 3 years	108	128	236	25.7
3-5 years	104	131	235	25.6
6-10 years	80	71	151	16.4
11-15 years	28	43	71	7.7
16+ years	48	60	108	11.8
Educational Attainment				
High School Graduate	2	120	122	13.3
Associate Degree	141	315	456	49.7
Bachelor Degree+	270	70	340	37.0
Types of Employment				
Tenured (<i>Bianzhi</i>)	200	12	212	23.1
Contract-based (<i>Hetong</i>)	205	459	664	72.3
Temporary (<i>Linshi</i>)	8	34	42	4.6
Teacher Certification				
Yes	392	210	602	65.6
Pursuing	15	181	196	21.4
No	6	114	120	13.1

To test the hypotheses, an independent samples T test was used to examine group differences in school types (public and private), while a one-way ANOVA was used to examine other group differences (i.e. job positions, professional qualifications, teaching experience, social identities, and school types). Due to differences in sample size between groups, Levene's test for equality of variances was performed to reveal whether the assumption of homogeneity of

variance was violated in the one-way ANOVA (Gastwirth, Gel, & Miao, 2009).

4.2.2 H1: Relationship between Teacher Leadership and Job Positions

A one-way ANOVA was conducted on the different teacher leadership dimensions with three independent variables of job positions (i.e. principals, middle leaders, and teachers). Although the results showed significant differences for the factors of staff management and development (SMD) and professional learning and support (PLS), Levene's test for equality of variances indicated that the assumption of homogeneity of variance was violated for these three factors ($p < .000$).

Table 15

Results of One-way ANOVA for Differences in Job Positions and TLS Factors

Factor	Group	<i>M</i>	<i>SD</i>	<i>F</i>
Staff management and development	Principals	5.13	.70	115.44***
	Middle leaders	4.57	.81	
	Teachers	3.70	1.22	
Peer learning and support	Principals	5.28	.63	21.90***
	Middle leaders	5.18	.63	
	Teachers	4.84	.89	

Note: *** $p < .001$

To account for the lack of homogeneity of variance, Games-Howell *post-hoc* testing was performed between the three groups for each TLS factor. Table 15 shows that principals ($M = 5.13$, $SD = .70$) perceived themselves as performing better in SMD than middle leaders ($M = 4.57$, $SD = .81$) and teachers ($M = 3.70$, $SD = 1.22$). The same results showed in PLS. However, there was no significant difference for communication with parents between job positions.

4.2.3 H2: Relationship between Teacher Leadership and Professional Qualifications

In this study, professional qualifications were divided into two types: educational attainment (i.e. High School Graduate, Associate Degree, Bachelor+) and registered teacher certification issued by the local Education Bureau (see Section 2.2.2). These two variables were analyzed separately as shown below.

Educational Attainment Level

A one-way ANOVA was used to test the differences in factor scores between the three educational attainment levels: High School Graduate, Associate Degree, Bachelor+. The results showed significant differences between educational attainment levels and all TLS factors (see Table 16). Levene's test for equality of variances revealed that the homogeneity of variance assumption was not violated for SMD ($F(2, 915) = 4.28, p = .38$) and PLS ($F(2, 915) = 13.30, p = .42$), but was violated for communication with parents ($F(2, 915) = 7.00, p = .00$).

Table 16

Results of One-way ANOVA for Differences in Educational Attainment and TLS Factors

Factor	Group	<i>M</i>	<i>SD</i>	<i>F</i>
Staff management and development	Bachelor+	4.17	1.26	4.28*
	Associate Degree	3.98	1.23	
	High School Graduate	3.83	1.16	
Peer learning and support	Bachelor+	5.07	.77	13.30***
	Associate Degree	4.95	.84	
	High School Graduate	4.62	.94	
Communication with parents	Bachelor+	5.56	.47	7.00***
	Associate Degree	5.50	.54	
	High School Graduate	5.17	.72	

Notes: * $p < .05$; *** $p < .001$

Tukey's post-hoc comparisons of the three groups indicated that school stakeholders with

High School Graduate degree ($M = 3.83$, $SD = 1.16$) perceived themselves as performing worse in SMD than Bachelor+ degree ($M = 4.17$, $SD = 1.26$). In PLS, however, they ($M = 4.62$, $SD = .94$) not only perceived themselves as performing worse than Bachelor+ degree ($M = 5.07$, $SD = .77$), but also worse than Associate Degree ($M = 4.95$, $SD = .84$). For communication with parents, it showed as the same results as PLS.

Teacher Certification Level

A one-way ANOVA was used to test the differences in factor scores between the three teacher certifications: Yes, Pursuing, and No. Although the results showed significant differences for the factors of PLS and communication with parents (see Table 17), Levene's test for equality of variances revealed that the homogeneity of variance assumption was violated for these three factors ($p < .01$).

Table 17

Results of One-way ANOVA for Differences in Teacher Certification and TLS Factors

Factor	Group	<i>M</i>	<i>SD</i>	<i>F</i>
Peer learning and support	Yes	5.04	.77	15.68***
	Pursuing	4.88	.89	
	No	4.60	.99	
Communication with parents	Yes	5.56	.49	26.36***
	Pursuing	5.40	.63	
	No	5.12	.63	

Notes: *** $p < .001$

For PLS, Games-Howell *post-hoc* testing indicated that school stakeholders who do not have certification ($M = 4.60$, $SD = .99$) perceived themselves as performing worse than those who have certification ($M = 5.04$, $SD = .77$) and those who are pursuing certification ($M = 4.88$, $SD = .89$). For communication with parents, it showed as the same results as PLS. However,

there was no significant difference for SMD between teacher certification.

4.2.4 H3: Relationship between Teacher Leadership and Teaching Experience

Table 18

Results of One-way ANOVA for Differences in Teaching Experience and TLS Factors

Factor	Group	<i>M</i>	<i>SD</i>	<i>F</i>
Staff management and development	less than 1 year	3.48	1.32	27.55***
	1 ≤ TE < 3 years	3.63	1.28	
	3~5 years	4.02	1.06	
	6~10 years	4.17	1.21	
	11~15 years	4.78	.89	
	16 + years	4.83	.98	
Peer learning and support	less than 1 year	4.52	1.10	15.10***
	1 ≤ TE < 3 years	4.79	.91	
	3~5 years	5.00	.74	
	6~10 years	5.06	.67	
	11~15 years	5.28	.61	
	16 + years	5.29	.66	
Communication with parents	less than 1 year	5.09	.79	16.13***
	1 ≤ TE < 3 years	5.44	.55	
	3~5 years	5.55	.48	
	6~10 years	5.56	.42	
	11~15 years	5.62	.42	
	16 + years	5.60	.49	

Note: *** $p < .001$

A one-way ANOVA was conducted on the different teacher leadership dimensions with six independent variables of teaching experience levels. Although the results showed significant differences for the factors of SMD, PLS, and communication with parents (see Table 18), Levene's test for equality of variances revealed that the homogeneity of variance assumption

was violated for these three factors (p 's < .000).

For SMD, Games-Howell *post-hoc* testing indicated that school stakeholders who had less than 1 year of teaching experience ($M = 3.48$, $SD = 1.32$) and 1 to 3 years of teaching experience ($M = 3.63$, $SD = 1.28$) perceived themselves as performing worse than other teaching experience variables, especially 16+ years of teaching experience ($M = 4.83$, $SD = .98$). For PLS, school stakeholders who had 11+ years of teaching experience perceived themselves as performing better than that of less than 5 years of teaching experience.

Similarly, for communication with parents, Games-Howell *post-hoc* testing revealed that school stakeholders who had less than 1 year of teaching experience ($M = 5.10$, $SD = .79$) perceived themselves as performing worse than other teaching experience variables, especially 11 to 15 years of teaching experience ($M = 5.62$, $SD = .42$) and 16+ years of teaching experience ($M = 5.60$, $SD = .49$).

4.2.5 H4: Relationship between Teacher Leadership and Types of Employment

A one-way ANOVA was used to test the differences in factor scores between the three types of employment: Tenured, Contract-based, and Temporary. The results showed significant differences between the three types of employment and all TLS factors (see Table 19).

Levene's test for equality of variances revealed that the homogeneity of variance assumption was not violated for SMD ($F(2, 915) = 10.00$, $p = .23$), but was violated for PLS ($F(2, 915) = 13.39$, $p = .002$) and communication with parents ($F(2, 915) = 7.25$, $p = .000$).

For SMD, *Tukey's post-hoc* comparisons of the three groups indicated that Temporary school stakeholders ($M = 3.32$, $SD = 1.26$) perceived themselves as performing worse than Tenured ($M = 4.23$, $SD = 1.16$) and Contract-based stakeholders ($M = 4.01$, $SD = 1.25$). For PLS and communication with parents, it showed as the same results as SMD.

Table 19

Results of One-way ANOVA for Differences in Types of Employment and TLS Factors

Factor	Group	<i>M</i>	<i>SD</i>	<i>F</i>
Staff management and development	Tenured	4.23	1.16	10.00***
	Contract-based	4.01	1.25	
	Temporary	3.32	1.26	
Peer learning and support	Tenured	5.11	.72	13.39***
	Contract-based	4.93	.83	
	Temporary	4.40	1.21	
Communication with parents	Tenured	5.57	.47	7.25**
	Contract-based	5.46	.56	
	Temporary	5.23	.80	

Notes: ** $p < .01$; *** $p < .001$

4.2.6 H5: Relationship between Teacher Leadership and School Types

An independent samples T test was conducted on the different teacher leadership dimensions using school type (i.e. public preschools and private preschools) as the independent variable.

Table 20

Results of Independent samples T Test for Differences in School Types and TLS Factors

Factor	Group	<i>M</i> ± <i>SD</i>	<i>t</i>	df
Staff management and development	Public	3.92±1.26	-2.54*	916
	Private	4.12±1.22		
Peer learning and support	Public	5.00±.78	1.67	916
	Private	4.91±.89		
Communication with parents	Public	5.59±.46	5.37***	911
	Private	5.39±.61		

Notes: * $p < .05$; *** $p < .001$

Table 20 shows that school stakeholders in private preschools ($M = 4.12$, $SD = 1.22$)

perceived themselves as performing better in SMD than public preschools ($M = 3.92$, $SD = 1.26$). However, school stakeholders in public preschools ($M = 5.59$, $SD = .46$) perceived themselves as performing better in communication with parents than private preschools ($M = 5.39$, $SD = .61$). Moreover, there was no significant difference for PLS between public preschools and private preschools.

4.2.7 Summary of *RQ2* Results

The TLS was self-administered to examine *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?” The results showed that the TLS had good psychometric properties. *H1* to *H5* were tested accordingly by surveying 918 school stakeholders. The results of *RQ2* are summarized in Table 21.

Table 21

Summary of RQ2 Results

Dependent Variables Independent Variables		Staff Management and Development	Peer Learning and Support	Communication with Parents
Job Positions		√	√	—
Professional Qualifications	Educational Attainment	√	√	√
	Teacher Certification	—	√	√
Teaching Experience		√	√	√
Types of Employment		√	√	√
School Types		√	—	√

Note: “√” indicates that there were significant differences between independent variables and dependent variables, while “—” indicates that there was no significant difference between independent variables and dependent variables.

4.3 RQ3: What are the Factors that Influence Teacher Leadership as Perceived by Various School Stakeholders?

Table 22

Themes & Codes of Factors that Influence Teacher Leadership

Themes	Codes
Macro-level	<ul style="list-style-type: none"> • Teacher leaders refer to those with official titles • Middle leaders perform tasks on behalf of the principal • Teacher leaders are appointed by the principal • The principal directly performs tasks • The principal has the final say • Only the principal is the leader • Decisions are made only by leaders • Classroom teachers cannot play a leader role • Classroom teachers cannot ignore immediate leadership • Only by holding power can one coordinate tasks • Only by having a position can one share views • The research topic requires a top-down approach • The research topic is decided by the group leader • The curriculum is designed by the principal
Meso-level	<ul style="list-style-type: none"> • Few opportunities to participate in school innovation • Few opportunities to participate in the Teaching Research Group • Rare school curriculum and teaching innovation • Few opportunities to participate in training • Poor efficiency of the Teaching Research Group • Rare group collaboration • Poor group cohesiveness • Teacher workload
Micro-level	<ul style="list-style-type: none"> • Leadership capacity is not recognized by the principal • Authority is not well distributed by the principal • Lack of encouragement from the principal • Suggestions are ignored or rejected by the principal • Innovation is not encouraged by the principal • Merit is not recognized by the principal • The principal lacks open-mindedness • The principal sticks to his/her own ideas

This section examines RQ3: “What are the factors that influence teacher leadership as perceived by various school stakeholders?”. The influencing factors were first identified in

the qualitative study, including Power Distance, School Culture, and Authority Openness. The quantitative study was then conducted to examine their relationship with teacher leadership.

4.3.1 Influencing Factors Identified in the Qualitative Study

After reviewing the current literature, this study identified three influencing factors: power distance, school culture, and principals' leadership style, to be verified in the qualitative study. After performing the qualitative content analysis, three influencing factors were found: power distance, school culture, and authority openness.

As mentioned in Section 2.3.1, power distance is defined as “the extent to which the members of a society accept that power in institutions and organizations is distributed unequally” (Hofstede, 1985, p. 348). The qualitative findings of this study showed that research participants focused primarily on a top-down approach to principal-oriented leadership, identified by the following three statements: “Middle leaders perform tasks on behalf of the principal,” “The principal directly performs tasks,” and “Decisions are made only by leaders.” In the traditional Chinese ECE management system of *Preschool Director's Responsibility*, most research participants agreed that “Only the principal has the final say.” Even middle leaders felt that they had limited autonomy in school decision-making. These findings emphasized that power in preschools in China was not well distributed.

Decisions are made only by my principal, I just keep doing my job (Senior Teacher N, Key Stage Coordinator M).

In my preschool, even key stage coordinators are not invited to attend executive meetings. All decisions are made by our principal. If your principal is stubborn, he/she will stick with his/her plan even if you make good suggestions. Sometimes I find that some teachers' suggestions are better than those of leaders, but leaders

do not want to hear about them (Key Stage Coordinator I).

This top-down management system also affected various school stakeholders' participation in the Teaching Research Group (TRG), considered as a form of professional learning community in China (Zheng, Yin, Liu, & Ke, 2016). During the TRG, subject leaders responsible for selecting the topics (i.e. Health, Language, Sociology, Science, and Art) play a key role in leading group discussions on curriculum development and day-to-day teaching issues. However, in the study, although research participants positively participated in the TRG, they reported that they had limited autonomy to lead discussions. Teacher Q and Teacher S indicated that they did not experience any professional growth during the TRG, as the research topics always came directly from their principal who did not consider their professional needs. Vice-principal J reported that the research topics in her school came directly from the local government, thus she had no autonomy. Although some principals emphasized their tendency to encourage their subordinates to participate in staff management, classroom teachers perceived that only teacher leaders in formal positions were appointed by their principal, resulting in a passive attitude toward leading school change.

Key stage coordinators and subject leaders in my preschool are appointed by our principal. This can lead classroom teachers to perceive themselves as subordinates whose primary responsibility is classroom teaching (Teacher P).

As mentioned in Section 2.3.2, school culture, which includes norms, values, vision, expectations, belief systems, and habits (Schoen & Teddlie, 2008), can give teachers time and opportunity and establish regulations to support teacher leadership practices (Hickey & Harris, 2005). However, the qualitative findings of this study showed that school culture in preschools was poorly established. Research participants primarily complained about their workload and the few opportunities they had to act as leaders.

I always feel that my time is occupied by different tasks every day. There are many executive tasks in my school, such as school quality rating and teachers' teaching skills competition. We spend a lot of time preparing these tasks. I am so exhausted that I do not have the energy to think about how to be a teacher leader. I prefer to make sure children are safe at school and that my work is well done (Senior Teacher N).

My preschool has no curriculum innovation, so I have not yet had the opportunity to participate. In fact, my school's curriculum is directly based on the teaching materials compiled by the Education Department of Fujian Province (Teacher U).

As mentioned in Section 2.3.3, school principals play a role in developing the leadership capacity of teacher leaders (Anderson, 2004; Mangin, 2007; Neumerski, 2013). This study found that the authority openness of the principals significantly influenced various school stakeholders' perceptions of teacher leadership. Authority openness refers to subordinates' perceptions that their boss listens to them, is interested in their ideas, considers these ideas fairly, and at least sometimes acts to address problems (McCartt & Rohrbaugh, 1995). As shown in Table 22, some research participants expressed dissatisfaction with their principals' authority openness in the following statements: "Leadership capacity is not recognized by the principal," "Authority is not well distributed by the principal," and "The principal lacks open-mindedness."

In summary, the factors influencing the various school stakeholders' perceptions of teacher leadership were Power Distance, School Culture, and Authority Openness. Hence, hypotheses 6 to 8 are formulated as follows.

- *H6*: Power Distance influences teacher leadership as perceived by various school

stakeholders.

- *H7*: School Culture influences teacher leadership as perceived by various school stakeholders.
- *H8*: Authority Openness influences teacher leadership as perceived by various school stakeholders.

4.3.2 Sample

Table 23

Demographic Information of Respondents to Examine Influencing Factors (n = 769)

	Public Preschools	Private Preschools	Total
	n	n	n
Teaching Experience (TE)			
TE < 1 year	45	71	116
1 ≤ TE < 3 years	107	124	231
3-5 years	98	115	213
6-10 years	78	49	127
11-15 years	24	16	40
16 + years	30	12	42
Educational Attainment			
High School Graduate	2	104	106
Associate Degree	137	248	385
Bachelor Degree+	243	35	278
Types of Employment			
Tenured (<i>Bianzhi</i>)	171	7	178
Contract-based (<i>Hetong</i>)	203	348	551
Temporary (<i>Linshi</i>)	8	32	40
Teacher Certification			
Yes	361	138	499
Pursuing	15	160	175
No	6	89	95

As mentioned in the literature review, the factors of school culture and authority openness are determined by school principals. Hence, principals may perceive that school culture and authority openness are part of their leadership style at school. However, these perceptions may not reflect other teachers' views (Kelley, Thornton, & Daugherty, 2005). These

differences can affect the relationship between influencing factors and teacher leadership. As a result, the principals' data were removed from the 918 responses, leaving a sample of 769 responses (see Table 23).

4.3.3 Instruments

The instruments in this study included the Teacher Leadership Scale, Power Distance, School Culture, and Authority Openness (for more details, see Section 3.5.2).

4.3.4 Results of Hypothesis Testing

This section tests the hypotheses generated from the qualitative findings, as mentioned in Section 4.3.1:

- *H6*: Power Distance influences teacher leadership as perceived by various school stakeholders.
- *H7*: School Culture influences teacher leadership as perceived by various school stakeholders.
- *H8*: Authority Openness influences teacher leadership as perceived by various school stakeholders.

Correlation analysis was used to estimate the strength of association between control variables and key variables. The means, standard deviations, and inter-correlations between control variables and key variables are presented in Table 24.

- *H6*: Power Distance had a positive influence on staff management and development ($r = .14, p < .01$), and a negative influence on communication with parents ($r = -.08, p < .01$), but had no significant influence on peer learning and support ($r = .05, p > .05$);
- *H7*: School Culture had a positive influence on staff management and development, peer

learning and support, and communication with parents. The correlation coefficients were .30, .40, and .32, respectively, with $p < .01$;

- *H8*: Authority Openness had a positive influence on staff management and development, peer learning and support, and communication with parents. The correlation coefficients were .35, .44, and .38, respectively, with $p < .01$.

Structural Equation Modeling (SEM), which is a multivariate statistical analysis used to analyze structural relationships (Bowen & Guo, 2011), was used to test the relationships between influencing factors and the TLS with Mplus 7.0. Following Heck and Hallinger's (2009) argument that teachers are nested in the school, using a two-level model is appropriate for data analysis to compensate for dependencies between teachers and increase the accuracy of estimates (Garson, 2013). However, research has revealed that if the design effect is less than two, the effect of clustering can be ignored (Hox & Maas, 2002; Lai & Kwok, 2015). To determine whether a two-level model could be used, this study first tested the design effect based on the following equation: "design effect = $1 + (\text{Average cluster size} - 1) \times \text{intraclass correlation}$ " (Lai & Kwok, 2015). The result showed that the design effect was less than two. Therefore, this study used a single-level model for data analysis. The model fit parameters were satisfactory (RMSEA = .06, CFI = .96, TLI = .96). As shown in Figure 4, the results indicated the following:

- *H6*: Power Distance had a significantly positive influence on staff management and development ($r = .18, p < .01$), but a negative influence on communication with parents ($r = -.10, p < .01$);
- *H7*: School Culture had a significantly positive influence on peer learning and support ($r = .14, p < .01$);

- *H8*: Authority Openness had a significantly positive influence on all teacher leadership dimensions: staff management and development ($r = .45, p < .01$), peer learning and support ($r = .49, p < .01$), and communication with parents ($r = .53, p < .01$).

Table 24

Means, Standard Deviations, and Inter-correlations of Control and Key Variables (n = 769)

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
<i>Control variables</i>												
1 Educational Attainment ^a	2.22	.67										
2 Teacher Certification ^b	1.47	.71	-.54**									
3 Teaching Experience ^c	2.83	1.32	.18**	-.22**								
4 Types of Employment ^d	1.82	.50	-.47**	.33**	-.26**							
5 Preschool ^e	1.50	.50	-.61**	.57**	-.17**	.49**						
<i>Key variables</i>												
6 School Management and Development	3.82	1.21	.07	-.06	.19**	-.12**	.02					
7 Peer Learning and Support	4.89	.86	.15**	-.18**	.20**	-.15**	-.09**	.71**				
8 Communication with Parents	5.47	.57	.21**	-.25**	.26**	-.12**	-.20**	.37**	.60**			
9 Power Distance	2.57	1.05	-.17**	.14**	-.05	.08*	.16**	.14**	.05	-.08*		
10 School Culture	5.06	.83	-.01	-.04	.02	.05	-.04	.30**	.40**	.32**	-.03	
11 Authority Openness	5.12	.89	.10**	-.18**	-.02	.03	-.16**	.35**	.44**	.38**	-.03	.69**

Note: **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a: 1 = High School Graduate, 2 = Associate Degree, 3 = Bachelor Degree+

b: 1 = Yes, 2 = Pursuing, 3 = No

c: 1 = Below 1 year, 2 = 1 ≤ TE < 3 years, 3 = 3~5 years, 4 = 6~10 years, 5 = 11~15 years, 6 = 16 + years

d: 1 = Tenured (*Bianzhi*), 2 = Contract-based (*Hetong*) 3 = Temporary (*Linshi*)

e: 1 = Public, 2 = Private

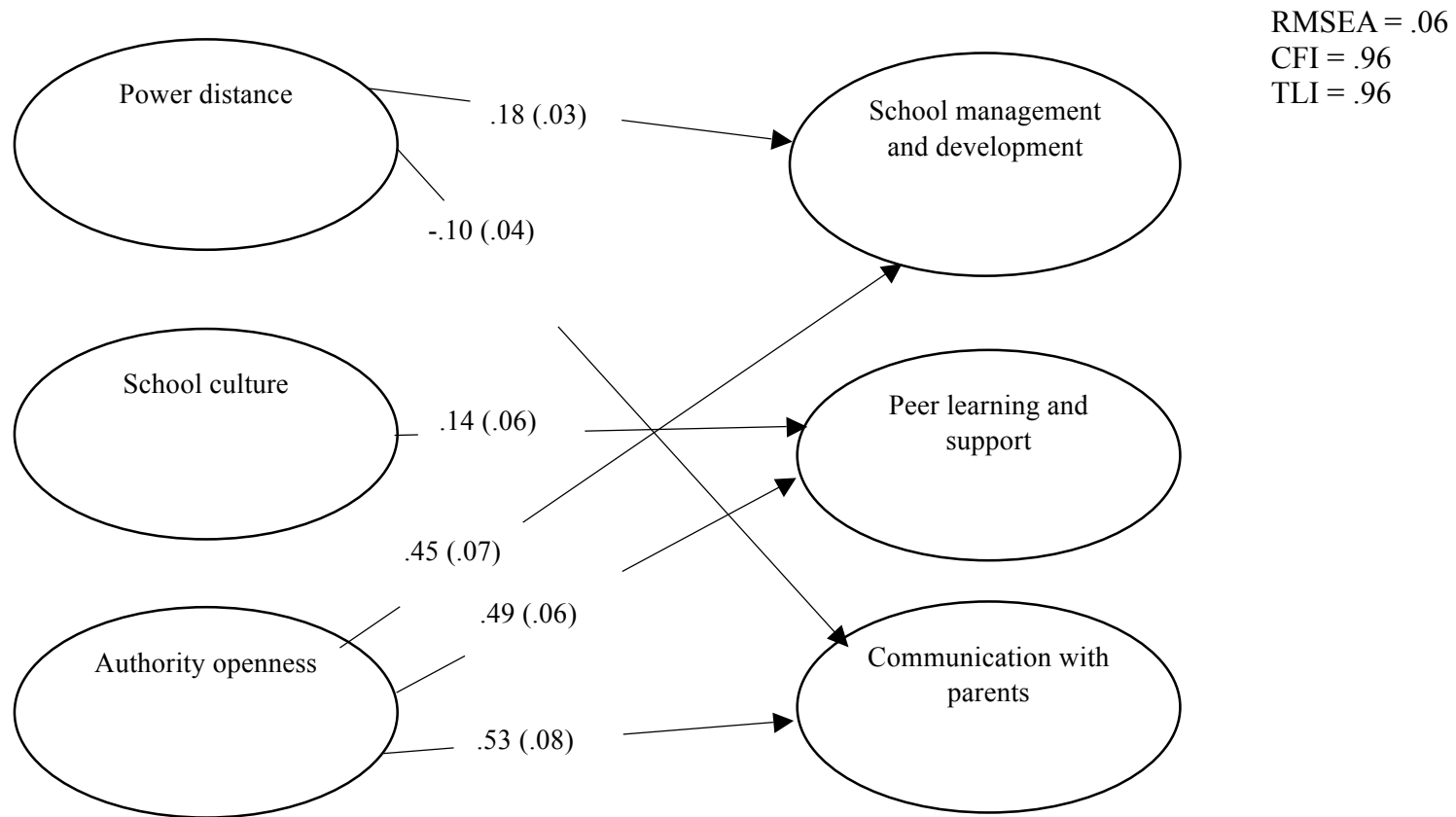


Figure 4. Structural Equation Model for Examining Influencing Factors of Teacher Leadership

4.3.5 Summary of *RQ3* Results

The following factors influencing teacher leadership were identified in the qualitative study: Power Distance, School Culture, and Authority Openness. There were 769 school stakeholders completed the questionnaire survey to examine the relationship between teacher leadership and Power Distance, School Culture, and Authority Openness. The results showed that (1) Power Distance had a significantly positive influence on staff management and development, but a negative influence on communication with parents; (2) School Culture had a significantly positive influence on peer learning and support; and (3) Authority Openness had a significantly positive influence on staff management and development, peer learning and support, and communication with parents.

4.4 Summary

This section presented the research findings and results for each research question. Regarding *RQ1*: “How is teacher leadership perceived by various school stakeholders in preschools in China?” three themes emerged from the qualitative content analysis: school-level leadership, peer-level leadership, and building relationships with parents. The findings of the qualitative study were first used to develop the Teacher Leadership Scale to examine *RQ2*: “Are there differences in the perceptions of various school stakeholders on teacher leadership?” Then, they were used to identify the influencing factors of teacher leadership and answer *RQ3*: “What are the factors that influence teacher leadership as perceived by various school stakeholders?” The results revealed that Power Distance, School Culture, and Authority Openness were three main factors influencing teacher leadership as perceived by various school stakeholders. After conducting a single-level SEM, the results showed that (1) Power Distance had a significantly positive influence on staff management and development, but a

negative influence on communication with parents; (2) School Culture had a significantly positive influence on peer learning and support; and (3) Authority Openness had a significantly positive influence on staff management and development, peer learning and support, and communication with parents.

Chapter 5 Discussion

This study has investigated various school stakeholders' perceptions of teacher leadership and its influencing factors in preschools in China by conducting a mixed-methods sequential exploratory design study. The qualitative findings were used to develop the Teacher Leadership Scale and identify the factors that influence teacher leadership as perceived by various school stakeholders, which were further explored in the quantitative study. The Teacher Leadership Scale consists of three constructs: school management and development, peer learning and support, and communication with parents. The influencing factors of teacher leadership were identified as Power Distance, School Culture, and Authority Openness. In the discussion that follows, I connect the broad findings and results to the global discourse on teacher leadership.

5.1 *RQ1*: How is Teacher Leadership Perceived by Various School Stakeholders in Preschools in China?

To address *RQ1* ("How teacher leadership is perceived by various school stakeholders in preschools in China"), semi-structured interviews were conducted with 21 research participants in Xiamen, China. A qualitative content analysis revealed three themes in teacher leadership: school-level leadership, peer-level leadership, and building relationships with parents.

5.1.1 Principal-oriented and Teacher-oriented Leadership Co-existed in School-level Leadership

The first dimension of school-level teacher leadership refers to the way in which teacher leaders use strategies to promote school development and improvement at an organizational

level. Based on research participants' views, teacher leaders performed school-level leadership in areas of staff management, teachers' professional development, curriculum and pedagogy, and leading school change. Among these leadership areas, staff management showed principal-oriented leadership, while principal-oriented and teacher-oriented leadership co-existed in teachers' professional development, curriculum and pedagogy, and leading school change.

In principal-oriented leadership, principals have absolute power and authority over staff management; it is a top-down management approach (Alegado, 2018; Ho, 2011). This conception was accepted by some of the research participants in this study, who agreed that “only the principal has the final say.” As one said (as quoted in Section 4.1.1):

Only my principal can decide whether I can continue doing my work. (Senior Teacher N, Key Stage Coordinator M)

This finding is consistent with the ideology of Confucianism (see Section 2.4). In Confucian society, the Sovereign–Subject relationship requires followers to obey their leaders' orders. Preschool principals in China are responsible for handling all vital decisions, while teachers rarely assume leadership roles at the organizational level. This situation leads some teachers to perceive themselves as followers, and hold passive attitudes to participating in leadership. In the same Confucian cultural context, preschool teachers in Hong Kong feel more like followers when leadership is mainly the responsibility of their principals (Ho, 2011). This situation can also be found in Western contexts. For example, preschool teachers in Finland had weaker leadership at the school level, whereas ECE leaders showed stronger leadership (Heikka et al., 2018).

Co-existence of principal-oriented and teacher-oriented leadership means that while

principals have absolute power and authority for leading, they distribute their power and authority to other teacher leaders. For example, in terms of leading teachers' professional development, the preschool principals in this study could empower teacher leaders to lead colleagues in class observation and evaluation, share professional knowledge, and engage in research projects, as shown in Table 13. However, although principals empowered teacher leaders to lead a Teaching Research Group (TRG), a form of professional learning community in China (Zheng et al., 2016), they intervened too much in the TRG, leading to a disturbing situation in which the subject leaders acted pseudo-roles.

Even though I am a Senior Teacher who is responsible for leading the teaching research group, the research topics are assigned by my principal. I act as a “bearer.” (Senior Teacher N)

In the teaching research group, we just discuss the research topics which have already been assigned by our principal. (Teacher T)

This finding suggested a buffer model, in which teacher leaders surround their principals and act as foot soldiers while carrying out directives (Anderson, 2004). It is clear that school principals have an important role in promoting the development of professional learning communities (Buttram & Farley-Ripple, 2016; Evans, 2014; King, 2011), but do not necessarily act as helmsmen. Indeed, school principals in professional learning communities in Western contexts seek to build shared leadership to form collaborative and inclusive school cultures (Moller, 2006), and provide opportunities for teachers to work in self-managed teams to improve their instruction (Davidson & Dell, 2003; Hickey & Harris, 2005). In Hallinger, Liu, and Piyaman's (2017) recent research, they conceptualized the role of school leaders as threefold: as motivator, guider, and supporter. Such findings should be brought to the attention of preschool principals to encourage their support of the development of TRGs.

Similarly, preschool principals could empower teacher leaders to lead in curriculum and pedagogy. Early researchers found that teacher leaders preferred to be more positive in instructional decisions than managerial decisions (Conley, 1991). Leadership practices relating to curriculum and pedagogy are closely associated with instructional leadership (Hairon et al., 2015; Stamopoulos, 2012; Walker & Ko, 2011; York-Barr & Duke, 2004). Heikka (2014) found that curriculum work and pedagogical improvement in ECE organizations are enacted by school stakeholders working at the micro level as teachers and directors. In this study, various school stakeholders were found to actively participate in curriculum and pedagogy. Thus, preschool principals could distribute power and authority to subordinates in curriculum and pedagogy, which is a form of contested model in which teacher leaders take decision-making control away from their principals (Anderson, 2004). This finding is consistent with the argument that teacher leaders are as important as principals in promoting schools' instructional development (Hairon et al., 2015; Stamopoulos, 2012; Walker & Ko, 2011; York-Barr & Duke, 2004). Recently, understanding of the role of instructional leadership has shifted focus from principals to teacher leaders (Neumerski, 2013). The instructional leadership literature shows that teachers are sometimes placed in leadership positions (Mangin & Stoelinga, 2008; Supovitz, 2008; York-Barr & Duke, 2004). As Key Stage Coordinator H said:

I prefer to design the curriculum based on children's interests. And I also develop the curriculum by taking advantage of the natural resources around my school.

(Key Stage Coordinator H)

Concerning leadership's ability to lead school change, teacher leaders could also be empowered by their principals. As Section 4.1.1 showed, however, whether teacher leaders lead school change depends on their change agency. This finding is consistent with the

argument that teacher leadership reflects teacher agency (York-Barr & Duke, 2004), which means that individuals are charged with responsibility for leading change (Harris & Muijs, 2004). The findings also showed that teachers' change agency is influenced by their job position. For example, Teacher U said: "I am a classroom teacher. This job position makes me feel that making school change is not my responsibility." This finding is aligned with the argument that the extent to which teacher leaders are able to exercise agency is affected by how they position themselves and by the schools' role in this positioning (Fitzgerald & Gunter, 2008).

5.1.2 Supportive Relationships in Peer-level Teacher Leadership

Peer-level teacher leadership means that the various stakeholders in a school support each other in professional development, without hierarchical relationships. As Sandholtz (2002) has said, professional development should involve "teachers teaching teachers" (p. 825), because teachers are more likely to value the contribution of their colleagues. In fact, colleagues recognize and respect teacher leaders who have subject area and instructional expertise (The Center for Comprehensive School Reform and Improvement, 2005).

I prefer to seek professional help from my colleagues who have expertise in areas such as working with parents, teaching strategies, and child development.

(Teacher U)

It was found that the participants in this study, including novice teachers, naturally engaged in sharing expertise, collaborating, and empowering others, to promote their peers' professional development. Such activities demonstrated egalitarian relations between various school stakeholders. This finding is consistent with the concept of informal leadership, in which teacher leaders influence others based on authentic power rather than power-wielding tactics

(Pielstick, 2003). It is also aligned with the concept of Chinese horizontal collectivism, which emphasizes equality, sharing, and cooperation, as discussed in Section 2.4. Research has found that teacher leaders have the capacity to lead the school by increasing teacher collaboration, encouraging teacher professional learning, offering individualized assistance, and spreading best practices (Curtis, 2013; Muijs & Harris, 2006). This supportive relationship is built upon the school culture determined by school principals (Ho, 2010; MacNeil, Prater, & Busch, 2009).

Although I am the principal, as a human being I cannot do everything because of limited energy and time. I can manage vital matters in the school, such as teacher employment, finance, and expenditures. However, I am willing to empower the vice principal and veteran teachers in my school to help with young staff's professional development. (Principal C)

In addition, teacher leaders themselves also perceived their roles in promoting peers' professional development without any authority.

In my mind, she (veteran teacher) is a tutor instead of a leader, who does not make me feel nervous in communicating with her... Instead, I feel we are friends.
(Teacher O)

I just want to help them (novice teachers) in professional development by sharing my teaching experience, rather than pressuring them. In this regard, I hope they consider me more like a friend than a leader. (Vice Principal J)

Even the preschool principals in this study took the role of peers in promoting teachers' professional development. Harris (2003a) found that teacher leadership is premised upon a power redistribution within the school, moving from hierarchical control to peer control.

Indeed, there is a consensus that informal leadership through influence does not involve designated authority over peers (Taylor, Yates, Meyer, & Kinsella, 2011). In peer-level leadership, teachers do not like to be thought of as experts, because they think it might harm their relationship with colleagues (Mangin & Stoelinga, 2011). In Australia, center directors expect that positional leaders will support their staff's professional development, and that this learning may occur informally in day-to-day work (Colmer et al., 2014). The qualitative findings of this study also show that teacher leaders try to influence others through establishing a role model (see Section 4.1.2). According to York-Barr and Duke (2004), the notion of role models means that to be effective as leaders, teachers must be treated as experienced instructors who are respected by their peers. Indeed, mutual respect and recognition of colleagues' individual strengths is important in teacher leadership (Fairman & Mackenzie, 2015). The finding of empowerment is consistent with the argument that teacher leadership requires managing a process of change and motivating others to engage in professional development (Danielson, 2003). Harris (2003b) also stated that teacher leaders can motivate colleagues towards change and organizational goals.

5.1.3 Building Relationships with Parents

According to the concept of teacher leadership, teacher leaders influence others towards improving educational practice (Katzenmeyer & Moller, 2001; York-Barr & Duke, 2004). The involvement of parents, who are key stakeholders in promoting teacher leadership (Ho, 2008; Svanbjörnsdóttir, Macdonald, & Frímannsson, 2016), was considered by the various school stakeholders in this study to improve educational practice. Greenlee (2007) argued that a well-established relationship between teacher leaders and parents is central to teacher leadership. This study has found that keeping in close communication with parents is an important way for teacher leaders to build relationships with them. One possible explanation

is Chinese parents' high expectations of their children's education achievement, which is considered a major influence on quality educational practice in preschools (Cheng, 2014; Yan & Gai, 2014). To improve educational practice, various school stakeholders must take a leadership role in communicating with parents. The purpose of communicating with parents was mainly to involve them in the education process.

Education is an integral part of culture, and shaped by culture. Historically in China, education is considered foundational to the survival and stability of the nation and the individual (Gu, 2006). At the national level, the Chinese central government believes that national culture and morality can be improved through education, thus maintaining the nation's stability. Individuals can also obtain better jobs and earn more money by upgrading their education. Nowadays, some educational values have swept over China, such as "Hoping children have a bright future" (the Chinese saying is "*Wang Zi Cheng Long, Wang Nǚ Cheng Feng*"), "Knowledge can change your destiny," "Don't let your child fail at the starting line," and so forth, reflecting Chinese parents' strong emphasis on their children's academic achievement.

Nowadays, parents are paying more attention to their children's academic development. They believe the adage "don't let your child fail at the starting line."

Therefore, they are concerned with teaching quality at school, and what the school can provide to improve their children's academic development. (Principal F)

These emerging issues are fundamentally affected by two national systems in China: the *College Entrance Examination System* and the *One-child Policy*.

As the most populous country in the world, China follows the *College Entrance Examination System*, which stems from the imperial civil service examination system in the Sui Dynasty

(606 A.D.), and has deeply influenced parents' determination to select the best school for their children. As a system for selecting talented people, the *College Entrance Examination System* directly influences the course goals, course content, and teaching methods in schools. Most parents in China believe that academic learning should occur as early as possible, because it will give their children a head start in the competitive struggle for scholastic success. Research has indicated that Chinese parents are highly academic-focused in their involvement with their children's education (Lau, 2014), so that the course contents and teaching methods in preschools become similar to those of elementary classrooms, because most Asian parents (including Chinese parents) consider elementary school entrance to be the start of formal schooling (Suizzo & Stapleton, 2007).

Most parents require us to teach their children addition, subtraction, multiplication, division, and spelling (*Pinyin*). However, these course contents have already been forbidden by the national curriculum policy. This policy emphasizes the importance of play in preschool education. (Teacher P)

Meanwhile, the long-term *One-child Policy* has deeply altered family roles and childrearing. It has both raised concerns about overprotection and pampering, and strengthened parents' emphasis on education and strong involvement. Parents are not only interested in their children's academic achievement, but are quick to criticize teachers if they feel their children have been treated unfairly or harshly (Vaughan, 1993). A survey aiming to compare parent-child relationships between one-child and multiple-child families showed that one-child families ranked significantly higher in child-centeredness, spent more time and money, and held higher expectations for their children's education than multiple-child families (Chow & Zhao, 1996).

Most families have only one child, so the parents are willing to provide whatever

their child wants. (Principal D; Teacher U)

Due to these two national systems, maintaining a close relationship with parents is important. One manifestation is the perceived conflict in teaching contents and methods between schools and parents. Children's play is considered a basic activity in ECE in China, as a strong influence on preschoolers' physical, intellectual, moral, and aesthetic development. The importance of play is always central to curriculum reform in ECE (Zhang & Zhu, 2017). Chinese parents, however, think that children cannot attain any academic knowledge through play. However, in China, the national policy forbids the teaching contents and methods in preschools from being similar to those in elementary classrooms. This contradiction of educational concepts confuses preschool educators and makes them fear engaging in teaching modes that might not satisfy parents' expectations. To establish a positive relationship with parents, maintaining close communication with parents and helping them change the educational methods would seem important.

5.2 RQ2: Are There Differences in the Perceptions of Various School Stakeholders on Teacher Leadership?

To address *RQ2* ("Are there differences in the perceptions of various school stakeholders on teacher leadership?"), this study developed the Teacher Leadership Scale (TLS), which built on previous research. Ultimately, it showed that TLS had good psychometric properties. By administering TLS to 918 school stakeholders, data were analyzed through SPSS 24.0 to test the Hypotheses, as described in Section 2.4. In the following sections, I will discuss the results of the quantitative study and supplement with the findings of the qualitative study where appropriate.

5.2.1 There are Differences in Perceived Teacher Leadership Between Job Positions

Job positions in this study were divided into principals, middle leaders (i.e. vice principal, key stage coordinator, subject leader), and classroom teachers. The quantitative results showed that principals perceived themselves as performing better in staff management and development than middle leaders and teachers. In terms of peer learning and support, however, teachers perceived themselves as performing worse than middle leaders and principals. In addition, there was no significant difference in communication with parents between job positions. One possible reason might be that the various school stakeholders' perceptions were influenced by the closeness of their working relationship (Leithwood, 2016). That is, school principals focus more on managerial leadership, while teachers take leadership roles within and beyond classroom teaching.

Preschool principals in China have absolute authority and power to lead in all vital matters in the school. Therefore, the preschool principals played a dominant role in staff management and development. Due to the traditional Chinese ECE management system, *Preschool Director's Responsibility*, preschool teachers in China are socialized as followers with no responsibilities outside classrooms (Wang & Ho, in press). The results indicate a similar current state of affairs, which is consistent with the argument that teachers' connectedness with their peers is stronger than their school level development (de Lima, 2007).

A majority of school-level decisions such as voting for middle leaders and dealing with staff-personnel issues are directly carried out by my principal, who organized executive meetings in which only the vice-principal and key stage coordinators could participate. (Teacher Q)

As was also stated, even though teacher leadership in China plays a role in improving the

quality of ECE, preschool teachers are still confined to classroom management and teaching practice (see Section 1.2.1). School principals are an enduring feature of schools (Gurr, Drysdale, & Mulford, 2006). Preschool principals in this study may perceive their key role to be promoting their school's sustainable development. In this regard, they held onto power and authority and were responsible for the whole school's development. This stance of principal-oriented leadership in staff management and development was accepted by some of the research participants in this study, as described in Section 5.1.1.

I will participate in school decision-making only if my principal asks me to do that; otherwise I have never felt I had the authority, although I am a senior teacher.

(Senior Teacher N)

Many developed countries in the West are democratic, allocating power through achievement and encouraging participation, whereas Chinese culture is autocratic and paternalist, stressing the need to follow leaders (Law, 2012). Hong and Engeström (2004) similarly argued that Chinese paternalist culture emphasizes order and obedience, top-down management flow, respect for authority, and loyalty to one's superiors.

In terms of peer learning and support, teachers perceived themselves as performing worse than middle leaders and principals. This result is not surprising, because teachers have limited teaching experience, expertise, and leadership skills compared with other school stakeholders (principals and middle leaders), and thus need to be supported by others. As Sinha and Hanuscin (2017) have said, novice teachers, unlike veterans, tend to start by leading within the classroom and then transition to leading outside the classroom. This result is consistent with the qualitative finding of "veterans guiding novices," as described in Section 4.1.2.

Teacher O and Teacher T, with one to three years of teaching experience, also said,

As a novice teacher, I lack teaching experience and leadership skills. I prefer to learn from my senior colleagues. (Teacher O; Teacher T)

The quantitative result showed no significant difference in communication with parents between job positions. Communication with parents is a direct way for the various school stakeholders to share their professional educational knowledge and methods. Research has found that parental involvement can further elaborate and shape the vision articulated by principals (Barr & Saltmarsh, 2014; Griffith, 2001; Sebring & Bryk, 2000), which indicates that parents play a key role in school development. This study found no difference in communication with parents between job positions, indicating that classroom teachers had the autonomy and competence to engage in this kind of leadership practice. This result reflects the introduction of two national policies, the *Preschool Teachers' Professional Standard* and *Preschool Job Directive Rules*, which have shaped preschool teachers' professional development (see Section 1.2.1); these policies emphasize that communication with parents is one of teachers' leadership roles. In this regard, various school stakeholders, including classroom teachers in preschools, have leadership autonomy in communicating with parents.

Doing parental work well is a basic capacity that a preschool teacher must have. I need to communicate with parents during the workday, because they like to ask about their children's performance that day when they come to pick up their children. I have the autonomy to communicate with them. (Teacher Q)

I empower my subordinates to communicate with parents. Only when they face difficulty in communication do I help them. (Principal D)

In the qualitative study, the various school stakeholders were found to be capable of making a joint effort with parents to promote children's development, such as open days, parent-teacher

meetings, and phone calls (see Section 4.1.3). Indeed, teacher leaders are expected to assume leadership roles in improving parental involvement (Lindahl, 2008). It is argued that compared with school principals, who are concerned more with administrative duties, classroom teachers can spend more time on children's education, decision planning, and joint efforts with parents. Pounder (1999) reported that teachers especially target students with learning or behavioral problems, and tend to develop coordinated plans such as parent-teacher conferences and other forms of communication with parents. Because the quantitative result showed no significant difference in communication with parents between job positions, it appears that classroom teachers who consider communication with parents as a basic job duty can perform as well as principals and middle leaders.

5.2.2 There are Differences in Perceived Teacher Leadership Between Professional Qualifications

As stated in Section 2.2.2, professional qualifications discussed in this study include educational attainment and teacher qualifications. The quantitative results showed that the higher professional qualifications the various school stakeholders had, the better teacher leadership they perceived themselves to perform. This result is consistent with the results of previous research, which showed that professional qualifications are related to professional competence, professional knowledge, leadership skills, and change in outlook and attitude (Blank, 2010; Fukkink & Lont, 2007; Ho, Lee, & Teng, 2016; Justice & Espinoza, 2007). Indeed, the various school stakeholders must take courses related to child development, teacher professional development, leadership skills, and so on, if they wish to obtain higher professional qualifications. Camburn (2009) found that veteran teachers with higher degrees are more likely to take on formal teacher leadership positions. In addition, most experienced teachers are expected to take up roles as teacher leaders in school (Cheng & Szeto, 2016).

Hence, it is not surprising that the various school stakeholders with higher professional qualifications in this study reported that they perceived themselves as performing better in teacher leadership.

5.2.3 There are Differences in Perceived Teacher Leadership Between Years of Teaching Experience

The quantitative results showed that the various school stakeholders who had three years of teaching experience could perform staff management and development, and peer learning and support, as well as those who had 10 years' experience. Thus the various school stakeholders with less than three years' teaching experience might be considered novice teachers in these two types of leadership practices. This result is consistent with Katz's (1972) theory of in-service teachers' professional development stage, which holds that in the first three years, teachers are at the stages of survival and consolidation, in which they focus more on classroom teaching. Katz's (1972) developmental stages agree with the theory of the teacher leadership development process, articulated by Riel and Becker (2008), Brook et al. (2004), and Sanocki (2013), who considered the first level of teacher leaders to be classroom teachers.

The quantitative results showed that when the various school stakeholders had less than one year's teaching experience, they perceived themselves as not professionally competent in communicating with parents (see Section 2.2.1). This result aligns with Katz's (1972) theory of teachers' professional developmental stage, which holds that teachers at the survival stage are worried about their professional competence. In contrast, when the various school stakeholders had more than one year's teaching experience, they perceived themselves as professionally competent in communicating with parents (see Section 2.2.1). In Meister and Melnick's (2003) research, however, they found that teachers with one year of teaching

experience were concerned about conflict with parents and other adults. Another possible explanation might be that communicating with parents is considered a basic professional standard for preschool teachers. As Teacher Q said:

Doing parental work well is a basic capacity that a preschool teacher must have. I need to communicate with parents during the workday, because they like to ask about their children's performance that day when they come to pick up their children. (Teacher Q)

5.2.4 There are Differences in Perceived Teacher Leadership Between Different Types of Employment

In this study, the types of employment include Tenured, Contract-based, and Temporary, based on whether the salary is administrated by local government (see Section 2.2.4). The results here showed that Tenured school stakeholders perceived better performance in teacher leadership than Contract-based and Temporary stakeholders. This disparity might be caused by the *Tenured Policy* in China (Liang, 2011; Wang, Yang, & Dong, 2016), which leads to discrimination among types of employees (Tenured, Contract-based, and Temporary).

In the Chinese literature, the *Tenured Policy* has been verified as a factor that influences teachers' self-efficacy and autonomy (Jiao, 2008; Li, 2015a), which are related to teacher leadership practices. Teacher self-efficacy, which is defined as the extent to which teachers feel able to influence students' learning abilities and performance (Tschannen-Moran, Hoy, & Hoy, 1998), has been certified as a major variable that influences teachers' leadership behaviors, such as participation in instructional innovation (Ghaith & Yaghi, 1997; Holzberger, Philipp, & Kunter, 2013). It has also been identified as a contributor moderating the relationship of collective teacher efficacy to transformational leaders (Demir, 2008) and

instructional leadership (Calik, Sezgin, Kavgaci, & Cagatay Kilinc, 2012). Teacher autonomy is not simply control over teaching (Shaw, 2002), but also refers to the authority and freedom of teachers in the management of human, financial, and material resources during the instructional process (Ozturk, 2012). Similarly, the positive relationship of teacher autonomy with leadership practices has been confirmed (Kalshoven, Den Hartog, & de Hoogh, 2013; Wang & Cheng, 2010). For instance, Volmer, Spurk, and Niessen (2012) found that teacher autonomy contributes to a positive relationship between leader-member exchange and creative work involvement.

In this vein, teacher self-efficacy and autonomy to a large extent influence teacher leadership practices. However, the current state of preschool teachers' self-efficacy and autonomy in China is weak. A survey conducted in Shanghai showed that the self-efficacy of preschool teachers was only moderate (Li, 2015a). Researchers have found a low level of job satisfaction among preschool teachers in China (Hu & Sang, 2013; Liu, 2013). The low compensation of preschool teachers is one significant factor in their low level of job satisfaction. Research has shown that the salaries of early childhood teachers are unreasonably low (Zhao & Hu, 2008). Teachers working at private preschools in particular may earn even less than housekeepers (Wang, Hong, & Pang, 2015; Wang, Yang, & Dong, 2016).

It is common that the rate of teacher turnover in private preschools is high,

because their salary and social insurance are lower than in public preschools.

Some teachers in my school just consider the job a temporary one; if they can find a better job they will resign. I can understand their position, but I will not give them the opportunity for professional development. (Principal D)

I think most teachers in my school are not willing to make changes. They think

the salary is so low that they do not need to take on more roles. The only responsibility they take on is teaching well. (Principal G)

Likewise, preschool teachers' autonomy leads to challenges in professional development in China (Liu et al., 2008; Shen, 2011). Shu, Gao, and Li (2006) surveyed the critical issues around preschool teachers' autonomy in mainland China: they found that teachers could not freely arrange their teaching schedule, had no say in management activities such as curriculum construction, and could not give expression to their educational ideas, personality, and passions.

5.2.5 There are Differences in Perceived Teacher Leadership Between School Types

In this study, teacher leadership was examined in public and private preschools, which have different management systems and diverse school cultures. The results showed that the various school stakeholders in private preschools had more opportunities than in public preschools to participate in staff management and development, but fewer opportunities for communication with parents (see Section 4.2.6). Such results are consistent with the previous research, which indicated that contextual factors influence school leadership (e.g. Belchetz & Leithwood, 2007; Opdenakker & Damme, 2007).

Since the 1990s, Chinese preschools have been dominated by private preschools (Wang & Wang, 2017). Until 2016, private preschools accounted for 64.3% of all preschools in China. As stated in Section 2.3.2, public preschools and private preschools offer different school cultures. Most private preschools obtain little or no funding from local government. Therefore, governmental documents for private preschools mainly focus on quality and safety inspections, instead of administrative affairs. Compared with public preschools, which are directly led by local government, the management system of private preschools has higher

autonomy (Yue & Song, 2015). In this regard, public preschools in China have a more hierarchical structure than private preschools. Fitzgerald and Gunter (2007) once asked whether it is possible for “distributed leadership to occur in a policy climate that affords authority and responsibility for leadership and management to those labeled according to an established hierarchy” (p. 6). In Harris’s (2008) research, she says the existing school structures mediate against distributed leadership practice, and that this type of informal influence is impossible within the existing hierarchical structure of schools. Therefore, the various school stakeholders in private preschools performed better than public preschools in terms of staff management and development.

For public schools, the principals are led by the local government. They need to comply with orders from the government. I think that can be considered a reason why principals are not willing to distribute their authority to subordinates for school decision-making, because it may make things complicated. (Teacher Q)

Because public preschools are directly administrated by the local government, their quality assurance is better than that of private preschools. Each city in China has a quality rating system for preschools. Two of the indicators are important for rating preschool quality: quality of teaching staff, and family and community involvement (Hu & Li, 2012). According to the 2016 national *Preschool Job Directive Rules*, the minimum academic requirement for preschool principals is Associate Degree; while according to the 1994 *Teachers’ Law*, the minimum academic requirement for preschool teachers is Polytechnic School Education. To achieve a higher quality rating level, public preschools can more easily recruit teachers with good credentials (e.g. educational attainment, teacher certification), because the wage level and social security level for teachers are higher than in private preschools. Research suggests that teachers with teacher certifications are less likely to teach in low income and low

performing schools (Humphrey, Koppich, & Hough, 2005). Table 14 proves that the various school stakeholders in public preschools have better credentials than in private preschools in terms of educational attainment (29.41% of school stakeholders have a bachelor degree in public preschools, but only 7.62% in private preschools) and teacher certification (42.7% of school stakeholders in public preschools have a teacher's certificate, but only 22.87% in private preschools). Professional qualifications are essential for ensuring professional competence (Blank, 2010) and increasing teachers' professional knowledge (Fukkink & Lont, 2007) and leadership skills (Justice & Espinoza, 2007). It is not surprising that the various school stakeholders in public preschools could engage in better leadership in communicating with parents, as they had better professional knowledge and leadership skills.

5.3 RQ3: What are the Factors that Influence Teacher Leadership, as Perceived by Various School Stakeholders?

Several influencing factors on teacher leadership were identified in the qualitative study: Power Distance, School Culture, and Authority Openness.

5.3.1 Power Distance and Teacher Leadership

Power distance has been defined by Hofstede (1985) as “the extent to which the members of a society accept that power in institutions and organizations is distributed unequally” (p. 348). This study used a six-item measure of Power Distance developed by Dorfman and Howell (1988). The higher the score, the more a participant accepts that power should be distributed unequally. In other words, teachers may engage in leadership under their principals' managerial power and authority.

The results of this study indicated a positive influence of Power Distance on staff management and development, which means that teachers accepted that power is distributed

unequally in this kind of leadership practice. This result is not surprising, because traditional Chinese culture is associated with high power distance and hierarchy (Hallinger, Walker, & Bajunid, 2005; Hofstede, 1985; Triandis, Brislin, & Hui, 1988). In fact, members with high power distance perspectives are more likely to be accepting of, and comfortable with, structured authority relationships than those with low power distance perspectives within an organizational context (John & Michael, 1997). Thus preschool teachers tended to engage in leadership concerning staff management and development under their superior leaders' authority.

Due to the traditional Chinese *Principal Directors' Responsibility*, teachers with no official position in a school are accustomed to follow the orders of their principals, who have the authority to determine what and how work should be done and ensure that subordinates initiate such work. In addition, teachers tend to accept orders given by their principals, even when they disagree with them. Although each preschool in China has its own internal management system, most empower specific middle leaders, such as key stage coordinators and subject leaders, to assume leadership roles (Wang & Ho, in press). However, these middle leaders are also led by their preschool principals and have little autonomy because of the traditional hierarchical culture. This system has a major influence on leadership practice, so that leadership enactment does not include democratic involvement from other school members but is more hierarchical (Wang & Ho, in press). Senior Teacher N said:

I will participate in school decision-making only if my principal asks me to do that; otherwise I have never felt I had the authority, although I am a senior teacher.

(Senior Teacher N)

The results of this study show that Power Distance had a negative influence on the leadership domain of communication with parents, meaning that teachers could positively perform this

kind of leadership without their principals' managerial power and authority. This result agrees with the result of Section 4.2.3, which showed no significant difference in communication with parents between principals and teachers. The reason is given in Section 5.2.1, which showed that teachers had autonomy in communication with parents, because national policies made it one of teacher leaders' roles. Vail and Redick (1993) said that if teachers see the importance of teacher leadership activities, they are more likely to engage in them, which explains why teachers engaged in leadership to communicate with parents without their principals' authority and power.

5.3.2 School Culture and Teacher Leadership

School culture, which includes norms, values, vision, expectations, system beliefs, and habits (Schoen & Teddlie, 2008), has an influence on staff's attitudes and behaviors (Tsai, 2011). In this study, School Culture was proved to have significant positive influence on peer learning and support, but no influence on staff management, staff development, and communication with parents. The reason may be the role of principals, who determine the school culture (Ho, 2010; MacNeil, Prater, & Busch, 2009), as described in Section 2.3.2. This result indicates that the school principals in this study paid much attention to promoting peer learning and support by building a positive culture for staff members' supportive relationships, such as collaboration, communication, and sharing. As Principal C said:

Although I am the principal, as a human being I cannot do everything because of limited energy and time. I am willing to empower the vice principal and veteran teachers in my school to guide young staff's professional development. (Principal C)

Although this kind of leadership refers to relationships between teachers, the practice of peer

coaching will not generate genuine collaboration without the appropriate culture (Lam, Yim, & Lam, 2002; Little, 1990). This result also reflects preschool principals' stress on the importance of horizontal collectivism in promoting peer learning and support. As stated in Section 2.4, the concept of horizontal collectivism emphasizes equality, sharing, and cooperation. Although preschool principals did not distribute their official power and authority to subordinates in managerial leadership, they opted to build a collectivist culture for teachers. Research has indicated that school principals expected experienced teachers to take up roles as teacher leaders (Cheng & Szeto, 2016) and support other teachers' professional development. This argument was proved by the results in Section 4.2.3, which showed no significant difference in peer learning and support between principals and middle leaders, indicating that middle leaders are encouraged to take up roles as important as principals in promoting peer learning and support. The qualitative finding of a system of "veterans guiding novices" established by school principals also proved that principals hope to construct a positive school structure to promote staff members' professional development outside their managerial power and authority.

The quantitative results showed a significant difference in staff management and development between job positions. They indicate that principals rarely distributed power and authority to their subordinates in this kind of leadership practice. This situation is caused by Chinese Confucianism and the hierarchical system of *Preschool Director's Responsibility*, which makes teachers reluctant to see themselves as leaders (Fairman & Mackenzie, 2015; Krieg et al., 2014).

As discussed in Section 5.2.1, staff members perceived communication with parents as their primary job duty, and they were empowered to taking leadership roles in this kind of leadership practice by national policies.

In short, school culture did not influence the leadership practices of staff management, staff development, and communication with parents.

5.3.3 Authority Openness and Teacher Leadership

Authority openness refers to subordinates' perception that their boss listens to them, is interested in their ideas, gives fair consideration to the ideas presented, and at least sometimes takes action to address the matter raised (McCartt & Rohrbaugh, 1995). The results of this study showed that authority openness had significant positive influence on staff management and development, peer learning and support, and communication with parents.

Compared with the Power Distance and School Culture, school principals' Authority Openness had a positive influence on all dimensions of teacher leadership, indicating that preschool principals in China are seen as helmsmen by their subordinates. This result is consistent with arguments that school principals play a key role in developing teacher leaders' leadership capacity (Anderson, 2004; Mangin, 2007; Neumerski, 2013), encouraging them to take part in leading the school, and empowering them to participate in school decision-making (Devos, Tuytens, & Hulpia, 2014; Stoll, Brown, Spence-Thomas, & Taylor, 2015), as discussed in Section 2.3.3. One possible explanation is that teacher leadership is influenced by the relationship between teacher leaders and their principals, which has a vital influence on teachers' willingness to participate in teacher leadership practices (Smylie, 1992).

Teacher leadership is shaped through interactions between leaders and followers at different levels in a school (Spillane et al., 2004). Little (2003) argued that teacher leadership within schools is dependent on whether top-level administrators are able to relinquish power to teacher leaders. Research has also shown that the managerial openness of leaders has a

positive influence on subordinates' leadership behaviors (Ashford et al., 1998), because subordinates feel that their boss listens to them, is interested in their ideas, gives fair consideration to the ideas presented, and at least sometimes takes action to address the matter raised (McCartt & Rohrbaugh, 1995). This perspective has also been used to discuss leader-member interaction in the Chinese context (Zhu, Lu, & Song, 2015).

Our principal is kind and open-minded. She always asks for our suggestions when making decisions. I think a professional principal needs to listen to other staff members' opinions, because we know more about the practical issues than her, and we can provide her with practical information for school development and improvement. (Key Stage Coordinator I)

I like to make decisions based on my staff members' suggestions and opinions, because I think it means that the decisions will be willingly accepted by them. I do not like it if they complain too much about a decision. I found it to be a good strategy to have them participate in school decision-making. (Principal G)

As stated in Section 1.2.1, the leadership role of preschool teachers in China is limited to classroom teaching. Indeed, the duties of teacher leaders have more to do with teaching and learning than with management of the school (Katzenmeyer & Moller, 2009). Research has shown that hierarchical and bureaucratic structures serve to keep teachers isolated from the administration and each other (Ash & Persall, 2000). As a result, teachers rarely have the opportunity to engage in collegial activities (Childs-Bowen, Moller, & Scrivner, 2000; Leithwood & Jantzi, 2009; Stone, Horejs, & Lomas, 1997). In addition, this hierarchical system also means that teachers with no official position are reluctant to see themselves as leaders, and rarely refer to themselves or others as leaders (Fairman & Mackenzie, 2015; Krieg et al., 2014). However, this study indicates that if school principals have good authority

openness, their subordinates are more willing to participate in teacher leadership practices, including leadership at an organizational level.

5.4 Summary

This section has connected the broad findings and results of this study to the global discourse on teacher leadership.

Concerning *RQ1* (“How teacher leadership is perceived by various school stakeholders in preschools in China?”), the following findings were found:

- Principal-oriented and teacher-oriented leadership co-existed in school-level leadership.
- Various school stakeholders aimed to support each other’s professional development in peer-level leadership, without hierarchical relationships.
- Maintaining close communication with parents was considered by the various school stakeholders to improve educational practice, because of Chinese parents’ high expectations for their children’s educational achievement.

Concerning *RQ2* (“Are there differences in the perceptions of various school stakeholders on teacher leadership?”), the following results were found:

- There are perceptual differences in teacher leadership between job positions. The reason might be varying closeness in working relationships.
- There are differences in perceived teacher leadership between teachers with different professional qualifications. The reason may be that professional qualifications are related to professional competence, professional knowledge, leadership skills, and change in outlook and attitude.
- There are differences in perceived teacher leadership between years of teaching

experience. This result is consistent with teachers' professional development stage and the theory of the teacher leadership development process.

- There are differences in perceived teacher leadership between types of employment. The reason may be China's Tenured Policy, which has influenced teachers' self-efficacy and autonomy.
- There are differences in perceived teacher leadership between school types. The reason may be the different management systems and school cultures between public and private preschools in China.

For *RQ3* ("What are the factors that influence teacher leadership as perceived by various school stakeholders?"), the following results were found:

- There was a positive influence of Power Distance on staff management and development, because of traditional Chinese culture, which is associated with high power distance and hierarchy. Power Distance had a negative influence on communication with parents, because it is considered one of teacher leaders' roles in national policies.
- School Culture was proved to have a significant positive influence on peer learning and support, but none on staff management, staff development, and communication with parents. This result might be attributed to the role of principals, who determine school culture.
- Authority Openness had a positive influence on all dimensions of teacher leadership, indicating that the relationship between teacher leaders and principals has a vital influence on teachers' willingness to participate in teacher leadership practices.

Chapter 6 Conclusion

This section outlines the limitations of this study recognized in the process of research. An agenda for future research will be identified. Valuable implications of the findings and results of this study are identified for promoting education policy, school leadership, and teachers' leadership development.

6.1 Limitations of This Study

This section reviews the limitations of the research process. These limitations include the research site, samples, and methods of data collection.

Obtaining access for data collection is important for academic research. Due to limited manpower resources, I could only perform data collection in Xiamen, a developed city with a high enrollment rate in ECE (see Section 3.3). Therefore, the research findings and results of this study cannot reflect the overall situation of teacher leadership in ECE in China.

As stated in Section 3.4.2, the research participants (middle leaders, and classroom teachers) in semi-structured interviews were recommended by their principals, which might make them feel authority pressure from their principals. Hence, research participants might not fully cooperate in interviews, or their responses might be evasive. To avoid such problems that might influence the research findings, I undertook two measures. First, one-on-one interviews were used. I invited some of the research participants to meet outside of their workplace (e.g. in a coffee house or library) for interviews, rather than in their schools. Second, I promised that their responses would be kept confidential, and they were asked for informed consent.

Another limitation is that the interview data were generated from participants' own experiences. Although semi-structured interviews can directly ascertain research participants'

perceptions of themselves and their world, they also suffer from specific disadvantages. For instance, answers may be exaggerated, participants may forget specific details, and various biases may affect results. Furthermore, although the practices of teacher leadership take place in preschool teachers' everyday life, they may be unaware of the meaning of teacher leadership, because it is a common expression. To make up for such deficiencies, I provided them with examples when they were confused by the term, and reminded them to give examples when necessary.

The other limitation that I recognized is the self-report data. Although self-report data can provide a richness that personalizes data and facilitate elaboration of responses (Dodd-McCue & Tartaglia, 2010), it has the potential impact of the respondent as one source of measurement error, which might from three sources: (1) the respondent; (2) the method of data collection (e.g. interview, survey); (3) contextual factors (e.g. time pressure, setting) (Baumgartner & Steenkamp, 2005). This is also a methodological limitation due to the use of one-off interviews, which has been criticized as “a snapshot study” approach (Edwards & Crow, 2013, p. 7), and can easily introduce bias (Yin, 2009). With regard to this limitation, the responses of three school stakeholders (principal, middle leader, classroom teacher) from the same preschool were analyzed both individually and within subgroups, as discussed in Section 3.4.7.

As mentioned in Section 3.5.1, this study used quota sampling in the quantitative phase, due to the lack of source material for the sampling frame. Quota sampling is one kind of non-random sampling, which cannot achieve generalizability. I am aware of this limitation and acknowledge that the results of the quantitative study cannot be generalized. However, I expanded the samples as best as I could. A total of 1,660 school stakeholders were selected in the whole study (e.g. scale development, main study), accounting for 22.28% of the total

number of 7,451 school stakeholders in Xiamen city.

The criterion-related validity of the Teacher Leadership Scale developed in this study is another methodological limitation. Criterion-related validity refers to whether a given measure relates well to a current and future criterion, which is respectively called concurrent and predictive validity (Bhattacharjee, 2012). Although concurrent and predictive validity are frequently ignored in empirical social science research (Bhattacharjee, 2012), I recognize this limitation.

As mentioned in Section 4.3.3, I only used supportive leadership and participative decision-making as the two dimensions of school culture, because they have been identified in preschools in Shanghai, China (Qian, Jiang, & Ruan, 2007). In fact, School Culture Scale has another three dimensions: goal orientation, innovation orientation, and formal relationship. This study was conducted in preschools in Xiamen city, it had limitation of adopting only two dimensions of school culture.

6.2 Future Research

The literature review of this study focused on teacher leadership as a form of distributed leadership *per se*, and conceptualized it under the spheres of influence as school-level, peer-level, and building relationships with parents. However, teacher leadership could be conceptualized in terms of transformational leadership, shared leadership, and participative leadership. It is worth exploring the social phenomenon of teacher leadership from these theoretical perspectives. For example, using the theoretical perspective of transformational leadership, teacher leadership could be understood by exploring how teacher leaders participate in building the school's capacity to support the development and improvement of teaching and learning (Hallinger, 2003; Leithwood, 1992). Therefore, future research should

focus on performing a more comprehensive literature review to identify other meaningful leadership areas related to teacher leadership.

Teacher leadership is a process in which an individual influences a group of individuals to achieve a common goal (Northouse, 2006). Based on this theoretical perspective, the unit of analysis in this study was individual school stakeholders, who were asked to assess their own perceptions of teacher leadership and perceived influencing factors, rather than assessing teacher leadership practices enacted within a group of members. However, teacher leadership could be considered a social influence process whereby one group has influence over other people or groups (Yukl, 2012). In this regard, the concept of collective teacher leadership is worth consideration. Questions may be raised regarding how collective teacher leadership is practiced within a group in school contexts.

Although perceptions of teacher leadership and its influencing factors were examined in this study, the development of teacher leadership across time is still little understood (Poekert, 2012). Likewise, this study also had the limitation of its cross-sectional design. Recent studies have shown that leadership development is an iterative and recursive, rather than a linear, experience, and stressed the construct of personal growth while also including the overlapping constructs of growth as a teacher, researcher, and leader (Poekert, Alexandrou, & Shannon, 2016). This study has found that teachers in different professional developmental stages might show different leadership behavioral patterns. To examine changes in behavioral patterns of teacher leadership, exploratory studies with a longitudinal design should be conducted to situate teacher leadership within complex school contexts. For example, such a study might choose prospective leaders and school principals as research participants. Such a study would help us understand the developmental process from informal to formal teacher leadership.

As stated earlier, this study only used Xiamen as a research site. China is a country with a vast territory. Future research can draw on samples from other regions, such as East China, West China, and Central China, and involve research participants from both urban and rural areas. By doing so, it will give a more comprehensive picture of teacher leadership in China, and the differences in teacher leadership between regions (i.e. East, West, and Central) and areas (urban and rural). These results will contribute to developing a national education policy to promote quality ECE in different regions and areas.

6.3 Implications

The findings and results of this study have several implications for education policy, school leadership, and teachers' leadership development.

6.3.1 Implications for Education Policy

As stated earlier, since 2010 most local governments in China have initiated comprehensive education reforms to improve the quality of ECE. For example, *Preschool Teachers' Professional Standards* was introduced in 2012 and *Preschool Job Directive Rules* in 2016. However, these two policies only describe teachers' role in the classroom. This limitation might be why teachers perceive their roles and functions as being confined to the classroom and are reluctant to take on leadership roles. As stated in Section 1.1, teacher leaders can have an influence on district policy by taking advantage of new opportunities and pushing the district to implement new policies. Therefore, this study encourages local governments to develop policies that empower teachers to play a leading role in matters related to curriculum, pedagogy, teaching, and learning. Through building teachers' leadership capacity in these areas, school principals could further empower teachers to participate in school-level decision-making and staff management, which are now characterized as principal-oriented

leadership in this study.

The quantitative results of this study showed that the tenured teachers perceived themselves as performing better in teacher leadership than contract-based teachers and temporary teachers. The reason for this difference may be the *Tenured Policy* in China (Liang, 2011; Wang, Yang, & Dong, 2016), which leads to discriminatory treatment between tenured teachers and non-tenured teachers. As stated in Section 2.2.4, the policy treats teacher salaries and administration differently between tenured and non-tenured teachers. Tenured teachers' salaries are administrated by local governments, and generally higher than those of non-tenured teachers. Salary has a close relationship with teachers' job satisfaction, which in turn influences teacher leadership practices. As stated in Section 1.2.2, the salary of non-tenured teachers in China is even less than that of housekeepers. According to Maslow's theory of hierarchy of needs and self-actualization, only when individuals' basic needs are satisfied can they move to a higher level of need and become a self-actualized person. As a result, this study suggests that local governments increase non-tenured teachers' salary to promote their job satisfaction, and thus promote teacher leadership practices.

This study also found that higher educational attainment among the various school stakeholders led to better perceived teacher leadership performance. The reason is that educational attainment is related to professional competency and knowledge, leadership skills, and a change in outlook and attitude (Blank, 2010; Fukkink & Lont, 2007; Ho, Lee, & Teng, 2016; Justice & Espinoza, 2007). Currently, however, the educational attainment level of preschool teachers is low. For instance, as described in Section 5.2.5, the minimum entry requirement for preschool teachers is a Polytechnic School Education, according to the 1994 *Teachers' Law*. This law has not been revised for more than two decades. This study found no significant difference in teacher leadership as perceived among the various school

stakeholders with educational attainments at an Associate Degree or Bachelor+ level (see Section 4.2.3). Hence, the Chinese central government should upgrade the minimum entry requirement for preschool teachers from Polytechnic School Education to at least Associate Degree.

6.3.2 Implications for School Leadership

Based on the findings and results, this study emphasizes the role of principals in promoting the development of school leadership. According to the findings and results, school principals play dominant roles in managerial leadership at school level, create a positive school culture for teacher learning and support, and enact authority openness to encourage subordinates to participate in leadership practices.

This study found that the leadership of staff management was principal-oriented. School principals are seen as determining school development. In a Chinese hierarchical culture, questions emerge regarding the extent to which principals might delegate power and authority to teachers. However, this study found that preschool principals took control of school-level leadership, and rarely distributed power and authority to subordinates. School principals solely depend on middle-level leaders, or even on themselves. Moreover, the results of this study indicate that teachers performed teacher leadership practices at the school level based on the premise of principals' power and authority. Therefore, school principals could empower teachers to participate in such leadership practices at school level. For example, school principals could empower teachers to provide suggestions on how to improve efficiency in the use of school operational funds, because teachers understand how such expenditures can be used to promote teaching and learning. Doing so contributes to teachers' self-efficacy and morale (Murphy, 2005) and flattens the hierarchical structure (Rieckhoff & Larsen, 2012).

As discussed in Section 5.1.1, preschool principals exerted too much influence on the Teaching Research Group (TRG), a type of professional learning community. In the TRG, all staff members can share their professional thoughts. Those without a post or who perceive themselves as having no authority can act in a leadership role (Wang & Ho, in press). However, the findings showed that the group members performed pseudo-roles. As discussed, school culture is influenced by school principals. A positive school culture shapes a harmonious teacher leadership atmosphere, where teachers engage in leadership without hesitation. In turn, expanding leadership roles and advancement opportunities for teachers is an effective strategy for retaining the most effective teachers (Berry, Daughtrey, & Wieder, 2010). The results of this study show that school culture has a positive influence on teacher learning and support (see Section 4.3.4). Therefore, preschool principals should establish a positive culture supporting the development of the Teaching Research Group. As Sandholtz (2002) has said, professional development should involve “teachers teaching teachers” (p. 825), because teachers are more likely to value the contribution of their colleagues. This study suggests that preschool principals can establish the “teachers teaching teachers” model within the TRG, where “veterans guide novices,” removing professional obstacles, sharing expertise, and collaborating.

Since the *Preschool Directors' Responsibility* was issued in 1989, preschool principals have had autonomy in school-based management. This top-down management system excessively empowers principals and has already impeded staff members' leadership behaviors, as they believe that “only the principal has the final say” (see Section 4.3.1). However, this study has shown that if school principals have good authority openness, their subordinates will be willing to participate in teacher leadership practices. As discussed in Section 5.3.3, teacher leadership is influenced by the relationship between teacher leaders and their principals.

Hence, this study suggests that, in China's highly hierarchical culture, although the ideology of "only the principal has the final say" is hard to change in a short time, school principals can show authority openness to their subordinates. For example, school principals could show willingness to listen to their teachers' suggestions for school development and teachers' professional development. They could also praise teachers who have come up with good ideas for promoting school development and improvement.

6.3.3 Implications for Teachers' Leadership Development

As stated in Section 2.2.3, the leadership development process refers to "every stage of development in the life cycle that promotes, encourages, and assists in one's leadership potential" (Brungardt, 1997, p. 83). Fairman and Mackenzie (2012) have argued that the development process of teacher leadership is not fixed, as some teachers may move through the stages of professional development in no particular order. Therefore, this study argues that teacher leadership practices might depend on human change agency.

Human change agency, which has been considered a key aspect of discourse on teacher leadership (Ho & Tikly, 2012), means "those individuals or groups of individuals who are charged with responsibilities for leading school-level change" (Harris & Muijs, 2004, p. 135). This notion suggests that teacher leaders need to recognize themselves as change agents to enact their leadership practices. The quantitative results of this study showed that teachers lacking formal positions displace leadership behaviors without their principal's power and authority. These behaviors include ones that teachers could engage in, such as sharing teaching expertise, communicating with parents, and so forth. Therefore, school stakeholders need to keep the concept of change agency in mind, and feel they are playing a leadership role in promoting school development and student learning. In this regard, teacher-education institutions should help prospective teacher leaders understand the meaning of change agency.

Furthermore, teacher-education institutions should establish leadership preparation for teacher leaders to enact change agency. For example, they could provide leadership opportunities for prospective teacher leaders who aspire to stimulate reflective practices and teacher growth (Eargle, 2013; Nudrat & Akhtar, 2014). In doing so, prospective teacher leaders can lead an organization in their career field, become confident in their leadership abilities, and learn the importance of collaboration and communication (Bond & Sterrett, 2014).

6.4 Conclusion of Thesis

This study adopted a mixed-methods study approach to examine the various school stakeholders' perceptions and its influencing factors of teacher leadership in ECE in China. This study provides some new insights into the practices of teacher leadership in ECE in Chinese context, and it is hoped that Chinese governments and school stakeholders, and even international scholars can better make sense of the landscape of teacher leadership in China.

- Preschool teachers who had no formal position perceived themselves as followers in cultural context which is influenced by Confucianism.
- Teachers showed respect for teacher leaders who had expertise in curriculum and pedagogy.
- Teacher leaders only showed their leadership practices in the areas of communication with parents and sharing expertise in curriculum and pedagogy without the authority and power delegated by their principals.
- If principals had authority openness, their subordinates were willing to take on the role of teacher leaders.
- Teacher Leadership Scale is the first of its kind for measuring the perceptions of teacher leadership practices in ECE in Chinese context: Staff management and development, peer learning and support, and communication with parents.

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Appendix A: Interview Protocol

a. Interview guide for principals

1. How long have you been a principal?
2. How long have you been working as a preschool teacher in this school?
3. May I know your educational attainment?
4. What do you understand by the term “teacher leadership”?
5. What are your role responsibilities in school?
6. Who do you think can be teacher leaders in school? Why?
7. Do you think teacher leaders require formal positions? Why?
8. What strategies have you employed to promote school development?
9. What do you do to promote staff members’ professional development? Please give me examples and details.
10. Do you involve staff members in school-level development (e.g. staff personnel management, curriculum innovation meetings)? What do they do? (If you do not involve all staff members, what are your criteria?)
11. How do you build relationships with your staff members (collaboration, communication, sharing)? Please give me examples and details.
12. Based on your observation, how do your staff members build relationships among themselves? And what is your role in this process?
13. What do you do in the teaching research group? And what do your staff members do? How do you evaluate its effectiveness?
14. How do you evaluate the system of *Preschool Director’s Responsibility (Yuan Zhang Fu Ze Zhi)*? Does this system affect your relationship with your staff members? How do you build and sustain the relationship?
15. Do you have anything else to share?

b. Interview guide for teachers

1. How long have you been a preschool teacher?
2. What is your job position in the school (e.g. key stage coordinator, subject leader, classroom teacher)?
3. May I know your educational attainment?
4. What do you understand by the term “teacher leadership”?
5. What are your role responsibilities in school?

6. Who do you think can be teacher leaders in school? Why?
7. Do you think teacher leaders require formal positions? Why?
8. Do you consider yourself a teacher leader? Why?
9. What strategies have you employed to promote school development?
10. Have you ever participated in school-level development (e.g. staff personnel management, curriculum innovation meetings)? If yes, what do you do? If not, why?
11. How do you support your colleagues to promote their professional development? Please give me examples and details.
12. What does your principal do to promote your professional development? Please give me examples and details.
13. What do your colleagues do to promote your professional development? Please give me examples and details.
14. How does your principal build a relationship with you (collaboration, communication, sharing)? Please give me examples and details.
15. How do you build a relationship with the middle leaders (e.g. group leaders, subject leaders)? Please give me examples and details.
16. How do you build a relationship with your partner in the classroom? Please give me examples and details.
17. What do you do in the teaching research group? And what do other group members do? How do you evaluate its effectiveness?
18. How do you evaluate the system of *Preschool Director's Responsibility (Yuan Zhang Fu Ze Zhi)*? Does this system affect your relationship with your principal? How do you build and sustain the relationship?
19. Do you have anything else to share?

Appendix B: Instruments

Investigation of Teacher Leadership Perceptions

Dear Participants,

You are invited to participate in a project supervised by Dr. HO, Choi Wa Dora, Associate Professor, and conducted by Mr. WANG Mo, who is a doctoral student at the Department of Early Childhood Education in The Education University of Hong Kong.

The purpose of this project is to investigate your perceptions of teacher leadership, which will allow us to make suggestions concerning teachers' professional development and school improvement. You need to fill out a 15-minute online survey. The questionnaire is anonymous.

If you would like to obtain more information about this study, please contact Mr. Wang Mo by email at _____ or by phone at _____. If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@eduhk.hk or by mail at Research and Development Office, The Education University of Hong Kong.

Thank you for your interest in participating in this study.

WANG Mo (Mr.)

Principal Investigator

Part I. Perceptions of Teacher Leadership

Please choose the answers that are most appropriate to you: from Never (0) to Always (5).

	Never (0)	Very rarely (1)	Rarely (2)	Sometimes (3)	Frequently (4)	Always (5)
I change teaching methods to meet children's needs						
I lead teachers in group discussion						
I coordinate work with my colleagues						
I raise questions about teaching to my colleagues						
I arouse the enthusiasm of my colleagues to work						
I encourage parents to make suggestions						
I put educational ideas into practice						

I help my colleagues to accomplish teaching						
I provide teaching suggestions to my colleagues						
I apply effective evaluation methods to promote child development						
I learn more through searching out information						
I communicate patiently with parents during disagreements						
I am careful to avoid inappropriate behavior						
I am involved in discussing some staff personnel decisions (e. g. hiring and promoting teachers)						
I motivate parents to participate in school activities						
I share my teaching experience with my colleagues						
I continually work to improve myself						
I professionally help parents to guide child development						
I refine lesson plans by inviting suggestions from my colleagues						
I pay attention to cultivating children's behavior habits when organizing activities						
I follow the professional development of my colleagues						
I encourage my colleagues to upgrade their professional qualifications						
I let novice teachers attend my demonstration class						
I adjust activity schedules to meet parents' needs						
I take a leadership role in administrative matters						
I communicate with my colleagues when we have differences of opinion						
I deal with disagreements among my colleagues						

I discuss parental work with my colleagues						
I ask for help from experts (e.g. veteran teachers, university teachers) when I face professional issues						
I learn from others' teaching experience						
I organize my colleagues to carry out seminars						
I discuss teaching strategies with my colleagues						
I participate in curriculum reform at my preschool						
I select and develop curriculum based on children's interests						
I invite experts to give professional training to teachers						
I participate in training programs to promote professional development						
I help my colleagues deal with parental work						
I arrange for my colleagues to attend and evaluate classroom teaching						
I offer teaching suggestions to novice teachers						
I help my colleagues in what I am good at (e.g. technique, art)						
I am involved in electing preschool leaders (e.g. coordinator, group leader)						
I express my opinions to leaders in terms of preschool development						
I upgrade my educational attainment						
I help my colleagues' teaching by going to their classes						
I discuss how to promote child development with my colleagues						
I adjust curriculum design to meet children's needs						

I go to the classes of my colleagues to give them guidance						
I give parents feedback on their child's performance						
I assign tasks to colleagues based on specific circumstances (e.g. personal capability, workload)						
I care for my colleagues when they have difficulties in life						
I pay attention to children's natural habits when organizing teaching activities						
I am conscious of the need for professional improvement						
I am fair to my colleagues						
I change irrational rules in the classroom						
Before organizing an activity, I draw up a plan						
I encourage my colleagues to improve their confidence						
I update the learning environment to meet children's needs						
I share learning experience with my colleagues						
I use effective evaluation methods to promote children's development						
I help my colleagues change their inappropriate behavior						
I give feedback to parents about their children's school performance						
I explore and innovate strategies for classroom management						
I discuss teaching opinions with my colleagues						
I create a positive environment in which my colleagues can display their talents						

I seek teaching suggestions by taking demonstration classes						
I care about school development						
I express opinions when participating in the teaching research group						
I encourage my colleagues to do what they are good at						
I help novice teachers understand the school curriculum						
I lead my colleagues to do research projects						
I communicate with parents by addressing their concerns						
I give advice to my colleagues on teaching						

Part II Influencing Factors in Teacher Leadership

To what extent do you agree with the statements below: from Strongly Disagree (1) to Strongly Agree (6).

	Strongly disagree (1)	Moderately disagree (2)	Slightly disagree (3)	Slightly agree (4)	Moderately agree (5)	Strongly agree (6)
Supervisors should make most decisions without consulting subordinates						
Our principal is open to new ideas						
In our school, the principal discusses with the staff members before important decisions are made						
It is frequently necessary for a supervisor to use authority and power when dealing with subordinates						
Our principal is receptive to suggestions						
Supervisors should seldom ask for the						

opinions of subordinates						
Our principal goes out of his/her way to help teachers						
In our school the staff members can be involved in the decision making process, such as giving suggestions for policy proposals						
Supervisors should avoid off-the-job social contacts with subordinates						
Our principal is interested in our ideas						
Our principal complements teachers						
Subordinates should not disagree with management decisions						
Our principal explains his/her reason for criticism to teachers						
Supervisors should not delegate important tasks to subordinates						
Our principal is available after school to help teachers when assistance is needed						
In our school the director stimulates staff members to take initiatives						
Our principal uses constructive criticism						

Part III Demographic information

1. Please indicate your job position

- (1)Principal (2)Middle leader (vice-principal, key stage coordinator, subject leader)
(3)Classroom teacher

2. Please indicate your educational attainment

- (1)High School Graduate (2)Associate Degree (3)Bachelor Degree and above

3. Do you have teacher certification

(1)Yes (2)Pursuing (3)No

4. Please indicate your teaching experience

(1)Less than 1 year (2) $1 \leq TE < 3$ (3)3-5 (4)6-10 (5)11-15 (6)16 and above

5. Please indicate your type of employment

(1)Tenured (2)Contract-based (3)Temporary

6. Please indicate your school type

(1)Public (2)Private

幼儿园教师领导力的认知及其影响因素调查

尊敬的老师，您好！

诚邀阁下参与香港教育大学副教授何彩华博士负责监督，博士生王默负责执行的研究计划。

本问卷旨在调查阁下对教师领导力的认识，以期为幼儿园教师专业发展和幼儿园教育质量改进提出建议。阁下将用大概 10 分钟的时间作答，问卷采用匿名填写。如阁下想获得更多有关这项研究的资料，请与王默联络（电话 ，电邮 ）。

阁下的参与纯属自愿性质。如阁下对这项研究的操守有任何意见，可随时与香港教育大学人类实验对象操守委员会联络（电邮: hrec@eduhk.hk；地址：香港教育大学研究与发展事务处）。

谢谢阁下有兴趣参与这项研究！

王默 博士生
香港教育大学
幼儿教育系

第一部分

以下行为，请选择与您最符合的一项：0 从不 → 5 总是。

题目	从不 (0)	极少 (1)	很少 (2)	偶尔 (3)	经常 (4)	总是 (5)
1.我会改变教育和沟通方式，以适应幼儿的需求						
2.我会组织教师开展研讨活动						
3.我会和同事沟通和协调班级工作						
4.我会向同事提出教学上的疑问						
5.我会调动团队工作的积极性						
6.我会鼓励家长建言献策						
7.我会将前沿的教育理念付诸实践（如：让幼						

儿自主学习、倾听幼儿)						
8.我会帮助新老师理解课程						
9.我会有意识地规范自己的行为						
10.我会协助同事完成教学任务						
11.我会在教学上给同事建议						
12.在教研活动中，我会提出自己的意见						
13.我会运用有效的评价方法促进幼儿发展						
14.我会参与讨论幼儿园一些人事决定（如：教师去留、教师晋升）						
15.我通过查找资料去学习更多的专业知识						
16.帮助完同事后，我会跟进他们的问题是否得到解决						
17.我会鼓励同事去提升资历（如：报考教师资格证、提升学历）						
18.我会让新老师来我的课堂观摩教学						
19.我会探索和创新班级管理的方法						
20.我会调整活动方案以配合幼儿家庭的需要（如：爷爷奶奶要参与园所活动）						
21.我会分担园所一些管理方面的任务						
22.我会组织教师设计和研究课题						
23.有不同的意见时，我会与同事积极沟通						
24.我会和同事探讨教学观点						
25.我会去解决同事之间的矛盾						
26.我会和同事研讨如何开展家长工作						
27.对待工作，我会有明确的计划						
28.我关心幼儿园的发展状况						
29.我会根据具体情况给同事分配任务（如：能力、数量）						

30.我会通过征集同事的建议来优化教学方案						
31.当同事工作遇到不顺时，我会去关心他们						
32.在组织活动时，我会注重培养幼儿的行为习惯						
33.我会跟进教师的专业成长情况						
34.遇到专业问题时，我会去请教专家（如：老教师、高校老师）						
35.我会给新老老师提供教学上的意见						
36.我会耐心地与家长沟通矛盾						
37.我会在自己擅长的领域上帮助同事（如：文献分析、电脑技术、艺术方面）						
38.我会创造环境使同事发挥他们的才能						
39.我会和同事探讨教学策略						
40.我会帮助同事改变不好的行为						
41.我会参与讨论幼儿园的课程改革						
42.我会邀请专家对教师进行专业培训						
43.我通过参加培训或讲座来提升专业水平						
44.我会指导同事处理家长工作						
45.我参与推选幼儿园的干部（如：教学主任、年级组长）						
46.我会组织教师听课和评课						
47.我会调动家长参与园所活动						
48.我会去提升自身专业不足的方面						
49.我会参与讨论活动方案的设计						
50.我会从家长的角度出发去与他们沟通						
51.我会跟同事分享教学经验						
52.我通过肯定同事来提升他们的信心						

53.我会通过更新环境来满足幼儿的学习需要						
54.我会向家长反馈幼儿在园的表现						
55.我会向领导反应一些关于幼儿园发展的意见						
56.我会去提升自己的学历水平						
57.我会去同事的班级指导他们的教学						
58.我会与同事讨论促进幼儿发展的方法						
59.我会根据幼儿的需求来设计和调整课程						
60.我会从专业上帮助家长引导幼儿发展						
61.我会继续提升自己擅长的领域						
62.我会与同事分享个人学习的收获						
63.在执行活动时，我会提前构思好方案						
64.我会鼓励同事发挥所长						
65.我会主动改变不合理的班级制度						
66.我通过开观摩课来征询同事的回馈						
67.我会学习他人的教学经验						
68.我会根据幼儿的兴趣来选择和生成课程						
69.当同事生活遇到困难时，我会去关心他们						
70.我会带领团队工作						
71.我会公正地对待同事						

第二部分

以下观点，你如何认为：1 完全不同意 → 6 完全同意

题目	完全不 同意 (1)	很不 同意 (2)	有点不 同意 (3)	有点 同意 (4)	很同 意 (5)	完全 同意 (6)
1.在与下属的交往中，管理者有必要使用						

权威和权力						
2.我们园长鼓励员工要积极主动地参与到幼儿园的发展中						
3.我们幼儿园全体员工都可以参与到决策的制定过程(如:政策建议、课程改革)						
4.管理者在做决定时不用咨询下属的意见						
5.我们园长批评老师的时候,会解释原因						
6.管理者不应该委派下属重要的任务						
7.如果老师们需要帮助,我们园长下班后会留在园里提供帮助						
8.我们幼儿园的重大决策,是园长与全体员工一起商议的						
9.下属不应该质疑管理层的决定						
10.我们园长会给出具有建设性意义的批评						
11.管理者要避免与下属工作以外的来往						
12.我们园长会和老师们优势互补						
13.管理者不应该征求下属的建议						
14.我们园长会想尽办法帮助老师						

第三部分 基本信息

1.您现时在学校的最高职务

A 园长 B 中层领导(副园长、年级组长、教学主任) C 教师

2.您的学历

A 高中、中专或以下 B 大专 C 本科及以上

3.您是否有幼儿教师资格证

A 有 B 修读中 C 没有

4.您的幼教教龄

A 不足 1 年 B $1 \leq \text{幼教教龄} < 3$ 年 C 3~5 年 D 6~10 年 E 11~15 年 F 16 年及以上

5.您的身份

A 编制人员 B 合同工 C 临时工

6.您幼儿园的性质

A 公办 B 民办

Appendix C: Human Research Ethical Approval



16 March 2017

Mr WANG Mo
Research Postgraduate Programmes
Graduate School

Dear Mr Wang,

Application for Ethical Review <Ref. no. 2016-2017-0252>

I am pleased to inform you that approval has been given by the Human Research Ethics Committee (HREC) for your research project:

Project title: Multiple Perceptions of Teacher Leadership in Early Childhood Education in China: A Mixed Methods Study on Xiamen City

Ethical approval is granted for the project period from 1 April 2017 to 30 April 2018. If a project extension is applied for lasting more than 3 months, HREC should be contacted with information regarding the nature of and the reason for the extension. If any substantial changes have been made to the project, a new HREC application will be required.

Please note that you are responsible for informing the HREC in advance of any proposed substantive changes to the research proposal or procedures which may affect the validity of this ethical approval. You will receive separate notification should a fresh approval be required.

Thank you for your kind attention and we wish you well with your research.

Yours sincerely,

Patsy Chung (Ms)
Secretary
Human Research Ethics Committee

c.c. Professor WANG Wen Chung, Chairperson, Human Research Ethics Committee

Appendix D: Consent Form**THE EDUCATION UNIVERSITY OF HONG KONG****Department of Early Childhood Education****CONSENT TO PARTICIPATE IN RESEARCH (FOR SCHOOL)**

Multiple Perceptions of Teacher Leadership in Early Childhood Education in China:

A Mixed Methods Study on Xiamen City

My school hereby consents to participate in the captioned project supervised by Dr. HO, Choi Wa Dora and conducted by Mr. Wang Mo, who is doctoral student of the Department of Early Childhood Education in The Education University of Hong Kong.

I understand that information obtained from this research may be used in future research and may be published. However, our right to privacy will be retained, i.e., the personal details of my teachers' will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My teachers' participation in the project are voluntary.

I acknowledge that we have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Signature:

Name of Principal/Delegate*:

Post:

Name of School:

Date:

(* please delete as appropriate)

INFORMATION SHEET

Multiple Perceptions of Teacher Leadership in Early Childhood Education in China:

A Mixed Methods Study on Xiamen City

Your school _____ is invited to participate in a project supervised by Dr. HO, Choi Wa Dora and conducted by Mr. Wang Mo, who is doctoral student of the Department of Early Childhood Education in The Education University of Hong Kong.

The purpose of this study is to investigate the various school stakeholders' perceptions of teacher leadership and its influencing factors in early childhood education in Xiamen city, China. To make comparisons of school stakeholders' perceptions, participants include preschool principals, middle leaders, and classroom teachers will be selected.

In qualitative study, 3 school stakeholders include 1 preschool principal, 1 middle leader and 1 classroom teacher will be selected from your school. In quantitative study, all teachers working at your preschool will be asked to fill out the questionnaire. Both the interviewees and questionnaire respondents are from preschool principal's assistance.

The interviewees who will be made and appointment, need to answer researcher's interview questions. Each interview will be recorded and is expected to last ranging from 40-50 minutes for each participant. Surely, interviewees have the rights not to be recorded. Participants will fill out a 15-minute survey about their opinions of perception of teacher leadership and its influencing factors. The questionnaire is anonymous.

Please understand that your teachers' participation are voluntary. They have every right to withdraw from the study at any time without negative consequences. All information related to your teachers' will remain confidential, and will be identifiable by codes known only to the researcher.

Pseudonyms such as 'X Preschool' will be used as your school if the researcher plan to generate papers and publish them in conference or academic journals.

If you would like to obtain more information about this study, please contact Mr. Wang Mo by email at _____ or phone _____.

If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@eduhk.hk or by mail to Research and Development Office, The Education University of Hong Kong.

Thank you for your interest in participating in this study.

Wang Mo

Principal Investigator

香港教育大學
幼兒教育學系

參與研究同意書(學校)

中國幼兒園教師領導力的認知調查：以廈門市為例

本校同意參加由何彩華博士負責監督,王默負責執行的研究計劃。他們分別是香港教育大學教員和學生。

本人理解此研究所獲得的資料可用於未來的研究和學術發表。然而本人有權保護本校教師的隱私,其個人資料將不能洩漏。

研究者已將所附資料的有關步驟向本人作了充分的解釋。本人理解可能會出現的風險。本人是自願讓本校學生/教師參與這項研究。

本人理解本人及本校教師皆有權在研究過程中提出問題,並在任何時候決定退出研究,更不會因此而對研究工作產生的影響負有任何責任。

簽署:

校長/ 學校代表*姓名:

(教授/博士/先生/女士/小姐*)

職位:

學校名稱:

日期:

(*請刪去不適用者)

香港教育大學**幼兒教育學系**

參與研究同意書(學校)

中國幼兒園教師領導力的認知調查：以廈門市為例

誠邀 _____ 參加何彩華博士負責監督,王默負責執行的研究計劃。他們分別是香港教育大學教員和學生。

本研究旨在調查廈門市幼兒園教師領導力的認知及其影響因素，由於要比較不同學校利益相關者在認知上的差異，是次研究將選取園長、中層領導和課堂教師作為訪談和問卷調查的對象。

本研究採用混合研究範式。在質性研究部分，將在貴校選取園長、中層領導和課堂教師各 1 名進行訪談。在定量研究部分，將對貴校所有教師進行問卷調查。訪談和問卷調查的對象由園長提供幫助。

研究者會事先預約被訪談者的時間，訪談中要回答研究者的問題，時間為 40-50 分鐘。被訪談者會被要求錄音，但其有權利拒絕。在問卷調查中，參與者被要求在方便的時間花費大概 15 分鐘的時間作答問卷的所有題項，問卷完全匿名作答。

本研究並不為閣下提供個人利益，但所搜集數據將對研究學習動機的問題提供寶貴的資料。貴校教師的參與純屬自願性質。所有參加者皆享有充分的權利在研究開始前或後決定退出這項研究，更不會因此引致任何不良後果。凡有關貴校教師的資料將會保密,一切資料的編碼只有研究人員得悉。

貴校理解此研究所獲得的資料可用於未來的研究和學術發表，然而有權保護自己的隱私，貴校的個人資料將不能洩漏。若研究者在會議上或學術期刊上發布研究結果，貴校的信息將會用簡稱代替，如廈門市 X 幼兒園。

如閣下想獲得更多有關這項研究的資料,請電話與本人或本
人的導師何彩華博士。

如閣下對這項研究的操守有任何意見,可隨時與香港教育大學人類實驗對象操守委員會聯絡(電郵:hrec@eduhk.hk; 地址:香港教育大學研究與發展事務處)。

謝謝閣下有興趣參與這項研究。

王默
首席研究員

THE EDUCATION UNIVERSITY OF HONG KONG

Department of Early Childhood Education

CONSENT TO PARTICIPATE IN RESEARCH (FOR PARTICIPANTS)

Multiple Perceptions of Teacher Leadership in Early Childhood Education in China:

A Mixed Methods Study on Xiamen City

I _____ hereby consent to participate in the captioned research supervised by Dr. HO, Choi Wa Dora and conducted by Mr. WANG Mo.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant

Signature of participant

Date

A Mixed Methods Study on Xiamen City

**香港教育大學
幼兒教育學系**

參與研究同意書(參與者)

中國幼兒園教師領導力的認知調查：以廈門市為例

本人_____同意參加由何彩華博士負責監督，王默執行的研究項目。

本人理解此研究所獲得的資料可用於未來的研究和學術發表。然而本人有權保護自己的隱私，本人的個人資料將不能洩漏。

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本人理解我有權在研究過程中提出問題，並在任何時候決定退出研究，更不會因此而對研究工作產生的影響負有任何責任。

參加者姓名:

參加者簽名:

日期:

香港教育大學

幼兒教育學系

參與研究同意書(参与者)

中國幼兒園教師領導力的認知調查：以廈門市為例

誠邀閣下參加何彩華博士負責監督,王默負責執行的研究計劃。他們分別是香港教育大學教員和博士生。

是項研究旨在調查廈門市幼兒園利益相關者對幼兒園教師領導力的認知及其影響因素。你作為利益相關者的一員，被選為研究對象。你要回答研究者的問題，時間在 40-50 分鐘。研究者會要求對訪談進行錄音，你有權利拒絕。你還被要求花費大概 15 分鐘的時間作答問卷，此問卷完全匿名。

你會被預約在你最方便的時間進行訪談，訪談地點擬設在你學校的外面，如咖啡館。你有一周的時間在家裡或者學校作答問卷。如閣下想獲得更多有關這項研究的資料,請與王默聯絡,電話 或聯絡他的導師何彩華博士,電話 。

閣下的參與純屬自願性質。閣下享有充分的權利在任何時候決定退出這項研究,更不會因此引致任何不良後果。凡有關閣下的資料將會保密,一切資料的編碼只有研究人員得悉。若研究者想在會議上或學術期刊上發布研究結果，你將會被化名為‘X 老師’。

如閣下對這項研究的操守有任何意見,可隨時與香港教育大學人類實驗對象操守委員會聯絡(電郵:hrec@eduhk.hk; 地址:香港教育大院研究與發展事務處)。

謝謝閣下有興趣參與這項研究。

王默
首席研究員