THE RELATIONSHIP BETWEEN TEACHERS’ PERCEPTION TOWARDS
SCHOOL CLIMATE AND THEIR DECISION-MAKING STYLES AT A PRIMARY
SCHOOL IN ANNING DISTRICT, LANZHOU CITY, CHINA

Yi Dan

A Thesis Submitted in Partial Fulfillment of the
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in Educational Administration
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The main purpose of this study was to determine the relationship between teachers' perception towards school climate and their decision-making styles at a selected primary school in Anning District, Lanzhou city, China. The study firstly assessed the teachers' perception towards school climate, examined the teachers' decision-making styles; lastly tested the relationship between these two main variables. A total of 75 full-time teachers replied the questionnaires adopted by the researcher. Means and Standard Deviations were used to report the teachers' perception towards school climate and their decision-making styles; Pearson Product Moment Correlation Coefficient analysis was applied to test the relationship between these two variables. The results showed that, the teachers in the target school had a relatively positive attitude towards school climate. Besides, teachers' most preferred decision-making style was group decision-making style. The Pearson Correlation test indicated that there was a significant relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning District, Lanzhou city, China. The researcher discussed on the findings and suggested that the stakeholders of this school should be aware of the importance of school climate and decision-
making styles, and teachers should be provided a stronger professional development platform as well as various forms of communication opportunities.
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It was the first time I began to study the writing of systematic master's thesis in the Research Course, from the long process of selecting my thesis topic, to the completion of the draft until finalizing it, the whole process is memorable for me. Although I was confused or even painful sometimes, the experience and knowledge I have learned in Assumption University will be a treasure in my life.

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Jan, 2019
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CHAPTER I

INTRODUCTION

This chapter elaborates the relevant background of the researcher's selected topic and the main issues within it, which are school climate and decision-making styles. Based on previous studies, the researcher adopted three theories in related fields as support, and then constructed a conceptual framework, thus paving the way for the research objectives and research hypothesis. Other elements such as definitions of terms, inadequacies and significance of the study are illustrated in the following part.

Background of the Study

Education does not exist alone, it always promotes human development, and always is influenced by the surrounding environment (Chawla & Cushing, 2007). As an important venue for the implementation of systematic educational behavior and the delivery of talent for the society, schools are undoubtedly given great social responsibility. The principal formulates regulations consistent with long-term development of school based on the country's overall education policy, then adjusts and improves them in the process of the educational activities (Holmes, Clement & Albright, 2013), eventually forms a school climate that meets the country's overall education guideline but has its own characteristic. The teachers and students constitute the main body of the school, an excellent school climate is a necessary condition for recruiting more superior teachers and cultivating more outstanding students (Freiberg, 1999). At the same time, it is also a salient indicator for parents and students to measure the school's learning environment and ultimately decide whether to choose to study at this school or not. Therefore, how to create a better and positive school
climate has always been a topic that deserves more research (Thapa, Cohen, Guffey & Alessandro, 2013).

For students, the school is a bridge for transforming professional knowledge into technical job skills in the future. A superb school climate can have a positive impact on students' learning initiative and creativity, thereby improving their academic output and increasing the employment rate in the future (Johnson & Stevens, 2006). Simultaneously, the school is not only a place for students to get access to knowledge, but also a location for teachers to work, thence, school climate has a direct effect on teachers' work enthusiasm and career development (Sia-ed, 2016). School climate is a broad concept, although there have been a lot of related studies, there is still no accurate circumscription of how to define it (Liu, Ding, Berkowitz & Bier, 2014). Halpin and Croft (1963) mentioned that an ideal organizational climate is a climate in which leadership behavior is easy to emerge, so they believed that the school climate is more relevant to the interaction between the principal and the teachers, which forms the keynote of this research.

Education is a life-long behavior, in this process, whether principal or teachers, making decisions is an indispensable behavior. The quality of decision-making ability can influence the course of events and results. In schools, decision-making ability embodies leadership (Tajasom & Ahmad, 2011). The decisions made by principal determines the overall long-term planning of the school, which is the vision and mission (Lunenburg & Ornstein, 2008). As a key factor in education procedure, the decision-making of teachers plays an extremely import section in the school, and constitutes a linkage between the policy and the students, that is, according to their own understanding of the overall policy of school, to formulate their distinctive teaching method and management style that suits themselves (Maringe, 2012). As the manager for themselves, the teachers' decision-making abilities and styles decide the individual's career expansion. Meanwhile, as the students' leaders, teachers'
decision-making styles will influence students' learning styles and motivations, thus affecting the output of teaching activities (Savas & Karakus, 2012). This decision process is accompanied by the beginning of the career until the end. For the teachers in school, the decision-making in the workplace is not just a self-management behavior, but an information-processing activity. In this process, there will be different social mechanisms affecting people involved in problem-solving or decision-making, thus affects the formation of results (Vroom & Jago, 1973). Therefore, making decision is an essential skill. It not only concerns the career planning and long-term growth of teachers that which decision they make can produce the greatest benefit for them (Mesut, 2011), but also, the teachers, as the leader and decision-maker in their class, the teachers' decision-making skills and styles are bound up with the students' learning outcomes and occupational regulations in the future. Meanwhile, it also has a decisive influence on the overall climate of the school (Tajasom & Ahmad, 2011).

In general, as the main place for students to study and for teachers to work at, the school climate is undoubtedly given a very important meaning, an active and healthy school climate is positively related to teachers' work enthusiasm and satisfaction (Sia-ed, 2016), which has a positive impact on teaching activities and the strategies used in the student management. Meanwhile, as an indispensable behavior in teaching activities, the decision-making style reflects the teaching management of teachers themselves. Nowadays, teachers need to constantly review their job-related skills or styles to cope with a more diverse and ever-changing world, the beneficiaries of strengthening school effectiveness are not only teachers themselves, but students' learning methods and motivation will also be bound up with it, thus affecting the success or failure of students (Tajasom, 2011). In particular, elementary education plays an indispensable role in a student's entire fundamental educational process, under the circumstance that the school climate and decision-making styles are of great significance to teaching output, therefore, the study of these two variables
is particularly important.

**Statement of the Problem**

The selected primary school at Anning district, Lanzhou city, China is an important public school in Anning district, therefore, improving the management level and consolidating the teaching quality of the school are practically meaningful to the educational development in Anning district of Lanzhou city. Based on this significant location advantage, in order to lay a solid foundation for improving students' academic achievement, how to further develop the teaching quality, and which may affect the teaching quality are worthy of in-depth discussion. However, there was no previous research on school climate and decision-making styles of the primary school at Anning district, Lanzhou city. Under this circumstance, the researcher tried to start a study on the school climate and decision-making styles, based on the perspective of teachers who act as the implementer of teaching activities. This study attempted to survey the teachers' views on the related two variables, as well as to test the relationship within them. The researcher deemed that it is of great significance to heighten students' academic achievements through the combination of theory and practice, aiming to help improve school performance in the future.

**Research Questions**

The following questions were the focus of this study, which included:

1. What is the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China?

2. What are the teachers' decision-making styles at the selected primary school in Anning district, Lanzhou city, China?

3. Is there any relationship between teachers' perception towards school climate
and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China?

**Research Objectives**

Based on the above research questions, the research objectives were:

1. To identify the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China;

2. To identify the teachers' decision-making styles at the selected primary school in Anning district, Lanzhou city, China;

3. To identify the relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

**Research Hypothesis**

This is a significant relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

**Theoretical Framework**

This study was mainly based on three theories, the Open and Closed School Climate Theory (Halpin & Croft, 1963) and the Healthy School Climate Theory (Miles, 1965) were used to support the researcher's idea of school climate, besides, Vroom and Yetton's (1973) Decision-Making Theory was adopted to support the opinion of teachers decision-making styles in this study.
The School Climate

(1) Open and Closed School Climate

Halpin and Croft (1963) believed, as the key dominating factor of the effectiveness of a school, principal should give teachers a sense of social and work achievement through effective organization and certain incentives, and accompanied by a good relationship with the subordinates. The openness of the school climate determines the effectiveness of the school.

For the open climate, its main feature is the openness of all members, which means all of them are working toward the goal of the school friendly and professionally. In this process, the principal supports subordinates rather than forcing them to work in accordance with his or her will. Therefore, teachers' job satisfaction and social needs are easily obtained.

For the closed climate, it is characterized by the stagnation of the organization. The unprofessional, uncooperative relationship between teachers, and the principal's unsupported and compulsive leadership style lead to a high level of apathy. Thence, in the process of achieving the common goal of school, neither the teachers' job satisfaction nor their social needs are difficult to obtain.

(2) Healthy School Climate

Miles (1965) initially mentioned in his article about the concept of healthy school climate, after his further research and other researchers' supplementation and demonstrations, this concept has been improved.

A healthy school climate refers to the characteristics of the school's institutional integrity, the principal can acquire resources through a certain influence. Therefore, teachers do not have to be subject to external pressures, so that they can focus on their own academic achievements and gain access to the principal's support and guidance, and the corresponding
social welfare are acquired. In this process, the morale of teachers, parents and students is high. On the contrary, an unhealthy school climate means that the principal lacks the influence of external resources so that teachers are subject to outside pressure.

(3) The Organizational Climate Index (OCI)

The Organizational Climate Index (OCI) was established by Hoy, Smith, and Sweetland (2002) based on the Organizational Climate Description Questionnaire (OCDQ) created by Halpin and Croft (1963) and the Organizational Health Inventory (OHI) created by Hoy (1991) to investigate teachers' perception on school climate.

The Decision-making Theory

The theoretical framework about decision-making style in this research was based on Vroom and Yetton's (1973) theory of decision-making styles, including three alternative styles, namely, Autocratic style, Consultative style and Group style.

Autocratic style contains two components, which are autocratic I and autocratic II. For autocratic I, the leader makes decisions based on their own knowledge or experience, without reference to the opinions of others. For autocratic II, the decision maker asks useful information from subordinates or colleagues, then makes decision independently, they may not necessarily be informed of the purpose of the inquiry and the outcome of the decision.

Consultative style consists of two parts - consultative I and consultative II. Consultative I refers to a style that decision-maker will inform subordinates or colleagues of the problems to be solved, ask their opinions, and ultimately make their own decisions. This process of inquiry with each individual is conducted separately, and it is uncertain whether the decision-maker's solution will finally be affected. Slightly different, in consultative II, each of the subordinates or colleagues here meet to share problems and thoughts with each
other. But still, whether the decision-maker's final decision be influenced by their opinions is uncertain.

For group decision-making style, the decision-maker chooses to use a collective approach to make decisions. Decision-maker humbly accepts the opinions of everyone in the group, they believe that they are just a motivator and his or her responsibility is to find the best solution to the problem by inspiring everyone to brainstorm, and the final decision is based on everyone's opinions and agreements.

**Conceptual Framework**

This study aimed to determine the relationship between the teachers' perceptions of school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China. Teachers' perceptions of school climate were measured by four dimensions developed by Hoy, Smith and Sweetland (2002), which are institutional vulnerability, collegial leadership, professional teacher behavior and achievement press. Teachers' decision-making styles were measured by three dimensions according to Vroom and Yetton's (1973) Decision-making Theory, which are autocratic decision-making style, consultative decision-making style and group decision-making style. Figure 1 below is the illustration of the conceptual framework of this study.
A selected primary school at Anning district, Lanzhou city, China

Teachers' perception towards School Climate
- Institutional vulnerability
- Collegial leadership
- Professional teacher behavior
- Achievement press

Teachers' Decision-Making styles
- Autocratic
- Consultative
- Group

Figure 1: Conceptual Framework of This Study

Scope of the Study

Though there are many related studies on school climate and decision-making styles, in this research due to the theoretical framework, four variables including institutional vulnerability, collegial leadership, professional teacher behavior, achievement press were utilized to describe the school climate in the target school; and three variables including autocratic, consultative, group were used to determine the teachers' decision-making styles in this study.

A total of 75 full-time teachers in the academic year 2018 from the selected primary school were used as the participants for this study, so the teachers' perception of this study may not be applicable for the other schools in Lanzhou city, China.
Definitions of Terms

This definitions of terms in this study are explained as follows:

**Teachers** - refers to the full-time teachers who teach students at the selected primary school in Anning district, Lanzhou city, China.

**Teachers' perception** - refers to how the teachers at the selected primary school in Anning district, Lanzhou city, China feel about the school climate and how they evaluate their own decision-making styles.

**School climate** - refers to the result of social interaction among leaders, staffs and community which can gradually form the characteristics of the selected primary school, Anning district, Lanzhou city, China, it had four variables been adopted in this study, which were collegial leadership, professional teacher behavior, achievement press and institutional vulnerability.

- **Institutional Vulnerability** - refers to whether the school is vulnerable to the external environment, such as a small number of prestigious parents and groups. If the principal and teachers are in an unprotected and defensive state, it indicates that the school has a high degree of institutional vulnerability. This variable was measured by question No. 1, 2, 3, 4, 5, 6 of the questionnaire about school climate.

- **Collegial Leadership** - the principal will set a code of conduct and expectations for teachers, but in this process s/he meets the teachers' social needs and achieves the school goals with equal, open, and friendly attitude
as a colleague of them. This variable was measured by question No. 7, 8, 9, 10, 11, 12, 13, 14 of the questionnaire about school climate.

- **Professional Teacher Behavior** - refers to the teacher has the ability to judge independently, respect the competence of colleagues and cooperate as well as support each other, and implement the commitment to students. This variable was measured by question No. 15, 16, 17, 18, 19, 20, 21, 22 of the questionnaire about school climate.

- **Achievement Press** - the school sets high but achievable academic requirements, students who are persistent and striving for the academic achievement of the standard are respected by the teachers and classmates. This variable was measured by question No. 23, 24, 25, 26, 27, 28, 29, 30 of the questionnaire about school climate.

**Decision-making styles** - refers to the way of solving problems that affects the process of individuals, groups, and even the entire organization, inclusive of autocratic decision-making style, consultative decision-making style and group decision-making style.

- **Autocratic decision-making style** - refers to a completely autocratic decision-making method, the decision-maker makes decision based on his own knowledge or experience, without reference to the opinions of the others. Question No. 1, 2, 3, 4 of the questionnaire about decision-making styles determined this style.

- **Consultative decision-making style** - refers to a style that decision-maker will inform subordinates or colleagues and ask their opinions separately about the issue, and ultimately make their own decisions. Although they provide different information and opinions, it is uncertain whether the
decision-maker's solution will finally be affected. Question No. 5, 6, 7, 8 of the questionnaire about decision-making styles determined this style.

- **Group decision-making style** - refers to a style that decision-maker chooses to use a collective approach to make decisions. Decision maker humbly accepts the opinions of everyone in the group, this is a complete teamwork approach, and the final decision is based on everyone's opinions and agreements. Question No. 9, 10, 11, 12 of the questionnaire about decision-making styles determined this style.

Selected primary school in Anning district, Lanzhou city, China - refers to a selected primary school which is located in Anning district, Lanzhou city of China.

**Significance of the Study**

The researcher was the first one to investigate the school climate and decision-making styles at the selected primary school in Anning district, Lanzhou city, China. Therefore, the researcher expected that this study can get the attention of teachers firstly, to make them to be aware of the importance of school climate, and also assist the teachers to understand teachers' decision-making behavior better, thus contributing to the enhancement of their managerial and professional skills.

The results of this research might be used for the development of quality teachers in the school, consequently, it may finally have a positive effect on the academic outcomes of students who are the stakeholders in school policy and teaching behavior and activities.

There are many studies on school climate and decision-making styles in the world, but very limited in China, especially at some less-developed area. Therefore, the study
may also be beneficial to the future researchers in the field of Chinese educational administration and management, at least it may contribute the first hand information to those who want to study the relationship between decision-making styles and school climate in China.
CHAPTER II

REVIEW OF RELATED LITERATURE

The previous chapter introduced the research background and theoretical basis of this study. This chapter explains the previous research on school climate and decision-making styles in detail, as well as the main theories that underpinned the author's focus on several specific dimensions. In addition, other related theories that help broaden the research thinking are also briefly introduced. Besides, the background of the selected primary school is introduced with more details.

Concept of School Climate

The research on school climate can be traced back to a century ago. As more and more educators find that the school climate is closely related to the achievements of students, scholars and schools have begun to pay attention to the study of this issue. Until now, study on school climate has always been a hot topic, many countries regard probing this issue as one of the strategies to promote school progress (Amrit, 2013).

Freiberg (1999) argued that the school climate is likened to a strong foundation in a house. As the main body of a "house", the climate of a school is the structure that supports the teaching and learning activities of teachers and students. In this case, it can not only promote the academic achievement of students, but also may become an obstacle to the progress of them (Ray, Lambie & Curry, 2007). Similarly, according to Cavrini (2014), school climate is an environment for students to learn and grow. When the students, teachers, parents and the community participate in with the supplement of data analysis, students can achieve higher academic outcomes.
The National School Climate Center (2010) defined school climate as the quality and character of school life, which embodies the views of the groups including teachers, students, and parents on school environment. School climate reflects the values, goals, and interpersonal relationships of each individual of the school, but it is not only a manifestation of personal experience, but a gradually formed group phenomenon. In this process, all groups are affected by the organizational climate, willing to work for the common vision of the school (Cohen, McCabe, Michelli & Pickeral, 2009).

As the direct educator of school's systematic education for students and one of the main constituents of this education system, teachers' views on school climate are also worth considering. Therefore, many scholars focus their research on teachers. Fisher and Fraser (1990) interpreted that school climate refers to the psycho-social context in which teachers work and teach. Further, according to the description of Yao et al. (2015), school climate is a workplace where teachers work with a psychological background. It not only affects the teachers' emotions, but also further influences their work behaviors. It was related to their own decision-making styles, relationships, student academic achievement and other factors (Malinen & Savolainen, 2016).

In Tajasom and Ahmad's (2011) point of view, the (school) climate includes two aspects, one is the interpersonal interaction between individuals in the organization, and the other is the groups (or the structures) on the school. As stated by Halpin and Croft (1963), as an organization, the climate of it was the result of social interaction among the various units in the organization, among them, leaders, groups and individuals constitute the main unit, and this interaction can gradually form the characteristics of the organization.

Although there are numerous studies on school or organizational climate, there is no uniform standard for how to accurately define the school climate (Liu et al., 2014), the explanation is differentiated by diverse researchers. Just as Anderson (1982) and Freiberg
(1999) pointed out, the definition and measurement of school climate is a complex project. How researchers measure school climate depends on the theory they use and their understanding towards the definition of climate. The different method based on the dissimilar type of school will lead to conclusions based on disparate measurement dimensions.

**Open and Closed School Climate**

The complexity of school climate is, the feelings about the climate generally differ from other individuals or groups based on the actual conditions of different schools. Therefore, it is a kind of perceptions that how teachers view the environment of their workplaces and the atmosphere they feel, not the organization environment itself (Johnson, 2007). Thus, tools are needed to collect these perceptions for analysis. The Organizational Climate Description Questionnaire (OCDQ) designed by Halpin and Croft (1963) is one of the most famous measuring tools for school climate.

Halpin and Croft (1963) elucidated, as the key dominating factor of the effectiveness of a school, the ability of the principal is crucial to form the initial climate of the workplace in which he or she is located, and in this climate, the principal constantly improves his or her leadership ability and thus influences the organizational climate. Therefore, they proposed a hypothesis that a desirable organizational climate is one in which it is possible for leadership behavior to emerge easily, that is, leadership behavior is a necessary condition for an organization to successfully achieve a common goal. An effective organization must give members a social satisfaction and a sense of task-accomplishment as a member of the organization.

In the initial phase of the study, a total of approximately 1,000 items were used for pre-testing involved 1,151 respondents in 71 elementary schools of United States. After a series of analysis, the final OCDQ version contains 64 items which are divided into eight
descriptions of behavioral characteristics, four of them are leadership behavioral characteristics, inclusive of aloofness, production emphasis, thrust and consideration. The other four are behavioral characteristics of team members, which include the disengagement, hindrance, esprit and intimacy.

Through the text of the questionnaire data and the analysis of these 71 schools, Halpin and Croft found that although each school's profile had different characteristic, it could be differentiated by six types of school climate, which were: the open climate, the autonomous climate, the controlled climate, the familiar climate, the paternal climate and the closed climate. Through technical analysis, Halpin and Croft (1963) drew a conclusion that the two most prominent features among these six types of school climate were open and closed school climate, which provided a conceptual framework for subsequent researchers.

The main feature of open climate is the openness of all members, which means all of them are working toward the goal of the school friendly and professionally. In this process, the principal supports subordinates rather than forcing them to work in accordance with his or her would. Therefore, teachers' job satisfaction and social needs are easily obtained.

In contrast, the closed climate is characterized by the stagnation of the organization. The unprofessional, uncooperative relationship between teachers, and the principal's unsupported and compulsive leadership style lead to a high level of apathy. Thence, in the process of achieving the common goal of the school, neither the teachers' job satisfaction nor their social needs are difficult to obtain.

Healthy School Climate

Healthy School Climate Concept

Another notable concept of school climate is the healthy school climate initially
mentioned in Miles' (1965) article. He pointed out that a healthy organization does not only exist in the social environment, but needs to constantly enrich its adaptability to survive in such environment, only a healthy organization can continue to develop and exert its effectiveness. In his subsequent article (Miles, 1969), Miles further explained that group norm could make teachers easier to reform and innovate, therefore they are more willing to accept risky tasks and ultimately strive for common goals.

After being redefined by Miles himself and other researchers (Hoy, Tarter & Kottkamp, 1991), the healthy school climate refers to the characteristics of the school's institutional integrity, the principal could obtain resources through a certain influence. Therefore, teachers do not have to be subject to external pressures, so that they could focus on their own academic achievements and gain access to the principal's support and guidance, and the corresponding social welfare are acquired. In this process, the morale of teachers, parents and students were high.

On the contrary, the unhealthy school climate means that the principal lacks the influence of external resources so that teachers are subject to outside pressure, and, the principal neither cares about teachers' welfare nor supports their academic issues. Therefore, morale of teachers, parents, and students are poor.

Miles' (1969) initial conceptual framework about healthy school climate included ten dimensions, which were goal focus, communication adequacy, optimal power equalization, resource utilization, cohesiveness, morale, innovativeness, autonomy, adaptation and problem-solving adequacy. Although this concept of Miles might not be directly used to measure the organizational health of a school, it provided ideas and theoretical support to later researchers. Hoy (1991) established the Organizational Health Inventory (OHI) to measure school climate, it was a long and arduous process.

The first step in developing an instrument to measure school health was to
qualitatively describe the ten dimensions of Miles. Via item analysis, a tentative one including 113 items were identified through being eliminated and refined by two professors and two doctoral students. A total of 153 teachers volunteered to participate in the validity testing of the instrument, however, the final result did not sort the 113 items into Miles' ten dimensions as expected (Hoy & Feldman, 1987).

Obviously, Hoy's attempt to put Miles' concept of school health into practice ended in failure, but gave them a strong interest in finding stronger and suitable theories to guide them in applying the factors of school health to the measurement of school climate. When they read a large number of relevant articles, they further discovered that the school can be considered as a social system. To survive and thrive, this social system must meet certain conditions and solve some problems, just as Parsons, Bales and Shils (1953) straightened out: Firstly, to adapt to the environment; Secondly, to set goals and implement them; Thirdly, to maintain unity within the organization; Fourthly, to establish and maintain an inimitable value system.

In the subsequent study by Parsons (1967), he further explained that these needs can be addressed from three different levels as explained below, which gave Hoy strong theoretical support to improve his research on healthy school. The three level as Parsons (1967) mentioned are: (1)The technical level - The main responsibility of the school is to educate the students. Therefore, for managers and teachers, their basic task is to solve the problem of how to make the teaching and learning process more effective. (2)The managerial level - Refers to the principal's management level. As the main administrator who is responsible for the school, the principal must allocate resources and work effectively, and at the same time cultivate teachers' loyalty, commitment, and trust to motivate them to work for the goals of the school. (3)The institutional level - This level integrates the school with the surrounding environment, that is, the normal functioning of school functions requires...
community support rather than oppression. In other words, the prerequisite for legal and orderly work of administrators and teachers come from community support.

Based on this conceptual framework of Parsons, Hoy created the Organizational Health Inventory (OHI). The instrument originally contained 95 items, a total of 72 secondary school teachers participated in the instrument test. After data analysis and evaluation and adjustment of the items, the final version consists of 44 items, including seven dimensions based on the above three levels, which are institutional integrity, initiating structure, consideration, resource support, influence with superiors, morale and cohesiveness, and academic emphasis. It should be particularly pointed out that in the original version, morale and cohesiveness were analyzed as two separate dimensions, but after empirical analysis, they were eventually classified into the same dimension (Hoy, 1991).

**The Organizational Climate Index (OCI)**

Organizational Climate Description Questionnaire (OCDQ) and Organizational Health Inventory (OHI) are professional survey instruments from the perspective of teachers. Although they are designed based on open school climate theory and healthy school climate theory, through deeper discovery by other researchers, this two instruments can be merged since there are overlapping parts of both open and healthy school climate, that is, an open school is often healthy and vice versa. Therefore, Hoy, Smith, and Sweetland (2002) combined and redefined OCDQ and OCI to design the Organizational Climate Index (OCI).

This survey instrument contains four dimensions to determine both the openness and health of the school. After testing at 97 high schools, the questionnaire was eventually reduced from 95 items to 30 items. The final version of OCI could be used to quickly obtain the perception on open and healthy school climate based on the teachers' perspective. There are four dimensions to describe, which are collegial leadership, professional teacher behavior,
achievement press and institutional vulnerability.

Institutional vulnerability refers to whether the school is vulnerable to the external environment, such as a small number of prestigious parents and groups. If the principal and teachers are in an unprotected and defensive state, it indicates that the school has a high degree of institutional vulnerability.

Collegial leadership refers to the principal's leadership behavior. The principal will set a code of conduct and expectations for the teachers, but in this process he or she meets the teachers' social needs and achieves the school goals with equal, open, and friendly attitude as a colleague of them.

Professional teacher behavior refers to that the teachers have the ability to judge independently, respect the competence of colleagues and cooperate as well as support each other, and implement the commitment to students.

Achievement press means that, the school set high but achievable academic requirements, and principals, teachers, and parents are all willing to make a great effort to achieve this high standard and to struggle for the improvement of school. Therefore, students who are persistent and striving for the academic achievement of the standard are respected by the teachers and classmates.

**Concept of Decision-Making**

Making decision is an important skill that determines all aspects of a person's life. In an organization, the leader's decision-making style and capability are related to the macro policy formulation, and also have an impact on the subordinates' behavior (O' Toole, 2009). On the other hand, personal decision-making skills are not only critical to their career development, but yet to the long-term unfolding of the organization. Therefore, research on the decision-making behavior is of great significance (Amason, 1996).
For what decision-making is, the definition is differentiated by distinct researchers based on various cultural backgrounds, education levels, and research priorities. Malakooti (2012) comprehended that decision-making is evaluating and/or ranking possible alternatives of actions, it is the most intricate and multifaceted human behavior. Some decisions are made by natural instinctual behaviors, while others are influenced by external factors and require detailed thinking process. Wild (1983) defined decision-making as a process of achieving goals that is affected by operability and personal preferences. Similarly, Mesut (2011) construed that decision-making is the process of solving problems that impacts the process of individuals, groups, and the entire organization. In an organization, different organizational models have divergent decision-making process. As summarized by Pfeffer and Salancik (1974), bureaucratic model has clear institutional hierarchies and goals, so they can often use optimal decisions strategy. The coalition model is likely to achieve everyone's consent in a compromised way, because the participants in this model have different criteria.

Pollard (1987) argued that decision-making should not only be considered as a single act of choice, but include an analysis of the problem unsolved and an assessment of other alternatives. Therefore, in a broad sense, decision-making is part of problem-solving, not all. In other words, it contains both the behavior of problem-solving process and the cognition of the issue. For managers, it is precisely because of this discrepancy from other people's judgments and perceptions that leads to divergence in decision-making styles (Gallén, 2006).

In addition, Bronner (1993) considered that decision-making is the process of confronting problems (or management task), especially with those eager and complex problems, that is, making difficulties easier and letting the complexity simpler. When this process goes up to the strategic level (specifically, the comity or organization), it requires senior management or teams to make strategic decisions (Nooraie, 2008).
All in all, as the essence of management, decision-making plays an extremely important role in everyone's life, especially for managers. No matter in the enterprise or school, when facing the complicated and changing environment, the decision-making styles of leaders and employees may be affected to varying degrees, and this often leads to be unable to maximize the utility of decision-making. Therefore, the study of decision-making, including the decision-making style and factors that influence it, has important practical significance (Del Campo, Pauser, Steiner & Vetschera, 2016).

Vroom and Yetton’s Theory of Decision-Making Styles
According to Vroom and Yetton (1973), as one of the leadership abilities, in an organization, decision-making is not made unilaterally by individuals, but is a social process within an organization. When decisions need to be made, there are generally a lot of different social mechanisms to choose from. These mechanisms vary with each individual, meanwhile, due to disparities in the way and the degree of information exchanged by group members, the final solution will not be alike. Therefore, Vroom and Yetton designed a decision-making model that contains three alternative styles, namely:

- **Autocratic decision-making style**
- **Consultative decision-making style**
- **Group decision-making style**

**Autocratic Decision-Making Style**

Autocratic decision-making style consists of autocratic I and autocratic II.

**Autocratic I. Decision-making Style (AI)**

This type of leader or decision-maker is completely autocratic. They make decisions based on their own knowledge or experience, without reference to the opinions of others.
**Autocratic II. Decision-making Style (AII)**

Leader or decision-maker asks useful information from subordinates or colleagues, then makes decision independently. Although others participate in the process of giving information, they may not necessarily be informed of the purpose of the inquiry and outcome of the decision.

**Consultative Decision-Making Style**

Consultative decision-making style includes Consultative I and Consultative II.

**Consultative I. Decision-making Style (CI)**

Such leader or decision-maker will inform subordinates or colleagues of the problems to be solved, ask their opinions, and ultimately make their own decisions. This process of inquiry with each individual is conducted separately. Although they provide different information and opinions, it is uncertain whether the decision-maker's solution will finally be affected.

**Consultative II. Decision-making Style (CII)**

Leader or decision-maker shares the problems they are facing with subordinates or colleagues, collects opinions and suggestions from everyone, and ultimately make decision alone. Unlike Consultative Type I, each of the subordinates or colleagues here meets to share problems and thoughts with each other. Although whether the decision-maker's final decision be influenced by their opinions is still uncertain, this action can be seen as a group-level decision.

**Group Decision-Making Style (GII)**

Group decision-making style is also called GII, this kind of leader or decision-maker chooses to use a collective approach to make decisions. Decision-maker humbly
accepts the opinions of everyone in the group, they believe that they are just a motivator and their responsibility is to find the best solution to the problem by inspiring everyone to brainstorm. This is a complete teamwork approach, and the final decision is based on everyone's opinions and agreements.

Each decision-making style has its advantages and disadvantages. For the autocratic style, the leader of decision-maker is completely responsible for the whole issue, so the quality of his decision-making determines the outcome of the problem to be solved. But on the other hand, Autocratic style is the quickest problem-solving method when facing some time-limited issues. Under this circumstance, using this kind of decision-making style has high requirements on the management level of leader or decision-maker, he or she needs enough experience and visibility to make good judgments so as to avoid negative consequences as much as possible (Vroom & Yetton, 1973).

Similarly, in the use of consultative style, whether it is consultative I or consultative II, the decision-maker is still the controller, and subordinates or colleagues who are being asked for suggestions may consider themselves as the real participants in the decision-making process, but when the final decision has nothing to do with them, it will more or less cause some psychological gaps to the participants. However, from the perspective of the decision-makers themselves, especially those who lack relevant experience, this is a more secure and relatively quick way to achieve their goals (Vroom & Yetton, 1973).

In contrast, Group style has a strong advantage. Although the decision-making process in this way may take a long time, each participant can express his own opinions. This fully respected cooperation method can stimulate gradually intensive self-efficacy. However, although the advantages are obvious, how to organize and coordinate a unified discussion time and how to balance the conflict in the decision-making process as to achieve the ultimate harmony requires the decision-makers to exert predominant leadership capacity.
(Vroom & Yetton, 1973).

Based on the above styles, Vroom and Yetton listed seven diagnostic questions to help managers make the most appropriate decision styles according to local conditions. The diagnosis is on the basis of seven rules designed to help decision-maker clarify the current situation and make the best choice. Three of them are about the quality of the decision, the rest are about the acceptance of the decision.

**Rules to Protect the Quality of the Decision**

- **Leader information rule** - Under the premise that the quality of the decision is important, if the decision-maker does not have enough experience and effective information to solve the problem, then the AI option is excluded.

- **Goal congruence rule** - Under the premise that the quality of the decision is important, if the subordinates do not have sufficient ability or willingness to make decisions for the organization's goal to solve the problem, then the GII option is excluded.

- **Unstructured problem rule** - If the quality of decision is important, but the decision-maker does not have enough experience and effective information to solve an unstructured problem, then the subordinates need to provide relevant information to make the problem to be structured, then exclude the AI, All and CI options.

**Rules to Protect the Acceptance of the Decision**

- **Acceptance rule** - If the subordinates' acceptance is important to the implementation of the decision, and they do not necessarily accept the decision maker's autocratic decision, then AI, and All are excluded.

- **Conflict rule** - If the subordinates' acceptance of the decision is crucial, and they do not necessarily accept the decision-maker's autocratic decision, meanwhile, the subordinates have differences in the way in which organizational goal is achieved, it is important to avoid the interaction of these subordinates in the decision-making process.
Conflicts are not conducive to the resolution of the problem. In this case, AI, AII and CI should be excluded.

Fairness rule - If the quality of decision is not important but the decision acceptance is crucial and not necessarily the result of authoritarian decision-making, then the decision-making process should produce the necessary acceptance, and this process should allow subordinates to communicate with each other and negotiate a solution fairly. Thus, AI, AII, CI and CII can be excluded from the alternative options.

Acceptance priority rule - If the subordinate’s acceptance is important and not necessarily the result of authoritarian decision-making, and the subordinates are willing to work hard for the organization’s goal with responsibilities, then the their cooperative relationship in the decision-making process will help solve the problem. under these circumstances, exclude AI, AII, CI and CII from the alternative options.

To sum up, as Vroom and Yetton (1973) explained, which decision-making style to use should be considered according to the current specific situation in order to achieve the best result.

**Other Related Theory of School Climate**

The study of school climate has always been a popular topic, due to different emphases and research perspectives, many scholars have developed their own theories about school climate, which inspired the researcher to consider this variable with diverse thinking.

**The Human Environment Theory**

A famous theory about school climate from the perspective of teachers is the theory of human environment (Moos, 1973). In this theory, Moos described the human environment in six dimensions, including ecological dimensions, behavior settings
dimensions, organizational structure dimensions, inhabitant dimensions, psychosocial
dimensions and the functional dimensions. These six dimensions are related and have
commonality, that is, they all have an eventful influence on the individuals themselves and
other members in the social relations. In particular, psychosocial dimensions has a close
relationship with the working and learning environment in which humans live. So, Moos
emphasized on this dimension and developed three categories to describe the human social
environment or climate (Moos, 1974).

Briefly, System Maintenance & System Change dimension refers to the clarity
and orderliness of the organization's expectations, as well as the ability to control and respond
to changes. Personal Development dimension refers to the way and direction of personal
growth, and self-improvement process and the assessment. While Relationship dimension
refers to the extent to integration of individuals and the environment and the degree of mutual
assistance and harmony between individuals and other members of the organization.

Subsequently, based on the above three dimensions, Moos (1974) produced the
Work Environment Scale (WES), which could be applied to all workplaces including
hospitals, factories, schools, and so on. It could not only be directly used to test the school
teachers' perception on the school environment or climate, but also provides the basis and
ideas for other researchers who study this field (Rentoul & Fraser, 1983; Fisher, 1990).

The Interactive Model of the School Environment

The definition of school climate varies from the subjects to study. According to
the National Association of Secondary School Principals (NASSP) (Keefe & Howard, 1997),
the limitation of most definitions of the school climate is that it is measured only from the
perspective of a certain group (such as the teachers or students). In order to make it more
universal, NASSP asked a task force to investigate and research the existing documentation
and measurement tools of the school climate, and finally created an interactive model of the school environment. The model argued that the school climate - whether from the perspective of teachers, students, or parents - is an impact factor on the school's development and success. Besides, NASSP created The Comprehensive Assessment of School Environments (CASE) to investigate the elements of the model. The NASSP School Climate Survey is designed to test the perceptions of school stakeholders (including teachers, students and parents) on the school climate. The Survey contained the following ten aspects (NASSP Task Force, 1989).

Teacher-Student Relationships referred to the relationship between students and teachers, including personal relationships and professional relationships. Security and Maintenance could be described as the stakeholders' views on school safety and the quality of maintenance. Administration referred to whether school administrators can set reasonable expectations for teachers and students and maintain effective communication. Student Academic Orientation was the students' willingness to participate in school tasks and their perceptions on learning achievements. Student behavioral values was the self-discipline of students and the degree of tolerance for classmates. Guidance was explained as the guidance provided by the school to students, including academic, work, and psychological counseling. While Student-Peer Relationships means that the students have a mutual relationship with care, cooperation and respect. Parent and Community School Relationships could be understood as the extent and the quality of parents' and community's participation in school management. Then, Instructional Management refers to teacher's effectiveness on classroom management. And Student Activities were the opportunities and extent to which students actually participate in school activities.

NASSP argued that the above surveys provided a more comprehensive option for researchers who want to fully investigate the views of teachers, students, and parents about school climate.
Other Related Theories of Decision-Making Model

Models of Decision-Making

A final decision is made through a long or short rational or irrational process of thinking, and gradually come up with the decision. Many scholars, inclusive of Vroom and Yetton (1973), tried to explain the decision process through a model, and gradually formed two type of popular decision models, which is classical decision models and behavior decision models (Lunenburg & Ornstein, 2008). These decision models brought more thought to the author.

The Classical Decision-Making Model

The classical decision-making model believed that each decision of the decision-maker is based on absolute rationality, so the decision process is a rational process, in this procedure, the decision-maker will propose a number of alternatives, and the final decision is made to maximize the benefits of the initial objective based on the analysis and filtering of all alternatives. This rational analysis process can be roughly divided into six steps (Lunenburg & Ornstein, 2008).

Identifying the problem - The first step in starting a decision in the classical decision model is to identify the problem, because the purpose of making decisions is to solve a problem, if there is no issue to be solved, then the decision process is meaningless. This step needs to take into account the current condition and the ideal situation, the gap between them needs to be filled by decision-makers through this decision-making process.

Generating alternatives - After analyzing the problem, list as many solutions as the decision-maker or his or her team can come up with.

Evaluating alternatives - According to the actual situation along with the expected results, carefully analyze and list the advantages and disadvantages of the
alternatives based on the experience of the decision-maker as well as the information collected.

Choosing an alternative - According to the evaluation results of the previous step, the optimal option is selected. When faced with several alternatives difficult to choose, some options with obvious strengths can be combined.

Implementing the decision - Every decision needs to be put into action. Decision-maker must consider the impact that this decision can have on expected outcome. Meanwhile, for team decision-making, if the implementation of the decision requires the help of team members, then the decision-maker, to some degree, needs a skill to "sell" this decision.

Evaluating the decision - The final step is to evaluate whether the decision has actually solved the original problem. Here is a situation that, the problem is not solved as perfect as expected, in the case of determining that the problem that needs to be solved is not unrealistic, if further filling the gap is needed, it is necessary to back to the beginning of the decision model to reanalyze.

The Behavioral Decision-Making Model

The idea that all the decisions are made through a rational way of thinking is advocated by classical decision-making model, while the behavioral decision-making model believed that, frequently, decision-makers are not aware of the problems they are facing now, or they are unable to give alternatives that cover all possible consequences because of the limited social resources, their work systems, and their own level of knowledge. Therefore, when decisions need to be made, they often list alternatives that can be made based on their own experience, knowledge, and access to information. These alternatives may even include innovative thoughts. Briefly, they are willing to make the optimal decision, but usually the best is not in the alternative. Simon (1997) called this limited rationality as Bounded
Rationality. He summarized that, to a certain extent, decision-makers often do not and cannot fully understand the problems they are facing, so it is impossible to propose all alternatives based on the current issue, let alone accurately evaluate each alternative, and predict its consequences. Therefore, in behavior decision-making model, it is uncertain whether the final decision can play its best role. He believed that unless in exceptional circumstances, decision-makers tend to choose the one that is satisfactory rather instead of optimal, that means, choose the first alternative that meets the minimum standard rather than list all possibilities and make a selection.

In addition to the above theories, some researchers argued that making decisions is part of the manifestations of one's leadership, so many scholars focused research on leadership in order to better understand the mechanism of decision-making behavior (Shapiro & Stefkovich, 2010).

Continuum of Leadership Behavior Model

Tannenbaum and Schmidt (1973) asserted that democratic leaders are more responsive to social development than highly-directive leaders. However, how to motivate subordinates to fully participate in decision-making, and at the same time, how to maintain their sense of responsibility as the main in-charge often confuse managers. It is easy to go from one extreme (complete dictatorship) to the other extreme (completely indulge). Therefore, Tannenbaum and Schmidt (1973) established a decision-making model to help decision-makers get out of the woods.
Boss-centred leadership

Subordinate-centred leadership

Use of authority by the manager

Area of freedom for subordinates

Manager makes decision and announces it
Manager "sells" decision
Manager presents ideas and invites questions
Manager presents tentative decision subject to change
Manager presents problem, gets suggestions, makes decision
Manager defines limits: asks group to make decision
Manager permits subordinates to function within limits defined by superior

Figure 2: Decision-making Model in Continuum of Leadership Behavior

Source from: Tannenbaum & Schmid (1973)

Figure 2 shows the degree of authority of the leaders or managers in the decision-making process and the extent to the participation of subordinates. From extreme left to extreme right is the boss-centered leadership and subordinate-centered leadership. The model contains seven leadership actions, and the decision-making styles are differentiated accordingly.

For the manager who makes the decision and announces it, he or she tends to decide themselves and then select a subordinate to perform directly. Whether the subordinate accepts the decision is not within his consideration, because they are not likely to participate in the discussion.

Similarly, the manager "sells" decision means, the leader here also makes the decision on his own, but in order to reduce the possibility of being rejected by some subordinates in the future, he will persuade subordinates to accept this decision by indicating the profits.

Slightly different, for the manager who presents ideas and invites questions, after
making a decision and all subordinates accept it, the manager will present the issue and invite questions so that the subordinate can understand the decision fully.

Between the boss-centered leadership and subordinate-centered leadership, a decision-making action is the manager presents tentative decision subject to change. Manager makes a preliminary decision, and then discusses with the stakeholders the feasibility of it, so this decision can be affected by subordinates.

Manager presents problems, gets suggestions, and makes decision - The above four actions are all based on the leader's existing decision, while this style is exactly the opposite of the boss-centered decision-making style. The role of the leader in this style is to state the problem, obtain different suggestions and solutions from experienced subordinates, and ultimately choose the best one.

One of the more decentralized is, the manager defines limits, asks group to make decision, which means the manager defines the limits or conditions allowed for the problem to be resolved, and the final decision will be determined by the team.

The most thorough subordinate-centered approach is, manager permits subordinates to function within limits defined by superior. This style exclusively occurs in formal organizations, such as a research team which is responsible for making a final decision on a product, the only limitation of this team is whether the boss exert intervention or not.

**Background of the Primary School in Anning District, Lanzhou City, China**

The selected primary school in Anning district is a public elementary school established in 1960. It had 75 full-time teachers and more than 1,200 students. At the beginning, the school was affiliated with a state-owned enterprise, aiming to facilitate the education for the children of the employees. With the expansion of the school and the management of the local education bureau, the school was later converted into a public
elementary school managed by the Anning District Education Bureau.

The reform and development of this school has gone through a long process. In the face of increasingly fierce competition at the end of the last century, the leaders began to think about how to expand students to survive. After practice, the principal of the school has explored the idea of running a school with characteristics. Under the premise of improving the quality of education, the school has further expanded the influence and popularity of the school with "characteristics". In 1997, this school was awarded the Traditional Sports Training School, so the school took this opportunity to make a fuss through sports. Thereafter, the school invested a lot of manpower and material resources to make this work solidly carried out. Afterwards, the school has promoted the development of other aspects of the school with special extracurricular activities such as sports. After continuous efforts, the school has won wide acclaim, and its influence has also expanded.

The school's management style is open-minded according to the school motto, and it adheres to the philosophy of democratic participation, scientific decision-making, and law-based work in a changing social environment. The school, on the one hand, strictly adheres to the quality of education first, formulates the goal of running a school with characteristics, the school supports the teachers to participate in teaching competitions and research reform activities. The teachers are encouraged to go out of school to learn from new educational theories and teaching methods with creative thinking to promote the improvement of school. On the other hand, according to the professional development schedule that have been written into the school calendar, the school often invites famous teachers or experts to conduct some workshop or training for the current teachers, so as to promote the employees’ continuous improvement. A series of activities with evaluations were conducted by the school leader team for the purpose of creating the school's reputation in the local area.
Summary of Reviewed Literature

This chapter described how previous researchers defined the concept of school climate and decision-making styles, as well as detailed introduction to the main theories supporting this study and other well-known theories in this field, and then gave an overview of the target university. Based on the main theories this study adopted, the teachers' perception of school climate was measured by four factors, inclusive of institutional vulnerability, collegial leadership, professional teacher behavior and achievement press. Then, the teachers' decision-making styles were determined by three dimensions, which were autocratic style, consultative style and group style. As the literature review shows, numerous researchers found that school climate is the structure that supports the teaching and learning activities of both the teachers and students. Meanwhile, as a kind of teacher behavior, making decision is not only related to teachers' career development, but also concerned to the students' academic outputs. As an implementer of teaching activities, the role of teachers in this process is crucial. Therefore, the investigation on school climate and decision-making styles in the perspective of teachers have momentous practical significance. The next chapter is going to describe how these factors apply to the actual measurements.
CHAPTER III

RESEARCH METHODOLOGY

The previous chapter expounded the theoretical basis of the study. This chapter aims at putting the theory into practice, which is a detailed discussion of the methods used in this study, including how to design the research, how to select the samples, and how to use the questionnaire.

Research Design

This study was mainly a quantitative and correlational designed, the researcher utilized the survey questionnaire to collect data, and studied the perceptions of target groups through descriptive and correlation analysis of the data, and then drew a conclusion based on the scientific methods of studying and analyzing the data. Specifically, the statistical methods that was applied in the process of data analysis included descriptive statistics and Pearson Product Moment Correlation Coefficient statistics.

Population

The selected primary school in Anning district, Lanzhou city, China had 75 full-time teachers in total, this study took all of them as the participants.

Research Instrument

This study used the questionnaire to collect data. The questionnaire was consisted of two parts. The first part used the Organizational Climate Index (OCI) designed by Hoy, Smith and Sweetland (2002) based on the Open and Closed School Climate and the
Healthy School Climate Theory to investigate teachers' perception of school climate. The questionnaire had a total of 30 items to survey teachers' perception on the four dimensions of school climate. Institutional vulnerability was measured by No. 1, 2, 3, 4, 5 and 6; collegial leadership was measured by No. 7, 8, 9, 10, 11, 12, 13, 14; the achievement press was measured by 15, 16, 17, 18, 19, 20, 21, 22; and No. 23, 24, 25, 26, 27, 28, 29, 30 surveyed the professional teacher behavior. The details can be seen in table 1.

*Table 1: Breakdown of Survey Questions on School Climate*

<table>
<thead>
<tr>
<th>School climate</th>
<th>Survey questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional vulnerability</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td>Collegial leadership</td>
<td>7, 8, 9, 10, 11, 12, 13, 14</td>
</tr>
<tr>
<td>Achievement press</td>
<td>15, 16, 17, 18, 19, 20, 21, 22</td>
</tr>
<tr>
<td>Professional teacher behavior</td>
<td>23, 24, 25, 26, 27, 28, 29, 30</td>
</tr>
</tbody>
</table>

This part of the questionnaire used 4-point Likert scale (1932), with 1 to 4 representing the degree from rarely occurs to very frequently occurs. Since this study adopted four dimensions to describe the school climate, here, the researcher utilized a range of 1 to 4 points, with a minimum score was 1 points, referring to the low index perception of school climate, and the highest score was 4 points, referring to the high index perception. The details can be seen in table 2:
Table 2: Interpretation and Scale for Survey Questions on School Climate

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Scale</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>4</td>
<td>3.51 - 4.00</td>
</tr>
<tr>
<td>High</td>
<td>3</td>
<td>2.51 - 3.50</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>1.51 - 2.50</td>
</tr>
<tr>
<td>Very low</td>
<td>1</td>
<td>1.00 - 1.50</td>
</tr>
</tbody>
</table>

The second part adopted the questionnaire created by Dennis (2012) based on Vroom and Yetton's (1973) decision-making theory, the questionnaire used in this study has 12 items in total which involved three dimensions: autocratic decision-making style, consultative decision-making style and group decision-making style, of which autocratic style was reflected in item No. 1, 2, 3 and 4, consultative style was represented by item No. 5, 6, 7 and 8, and item No. 9, 10, 11, 12 described the group style. Table 3 shows the breakdown.

Table 3: Breakdown of Survey Questions on Decision-Making Styles

<table>
<thead>
<tr>
<th>Decision-Making styles</th>
<th>Survey questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic decision-making style</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>Consultative decision-making style</td>
<td>5, 6, 7, 8</td>
</tr>
<tr>
<td>Group decision-making style</td>
<td>9, 10, 11, 12</td>
</tr>
</tbody>
</table>

The 5-point Likert scale (1932) was used in this part, with 1 to 5 representing the degree from very disagreed to very agreed, and the lowest and highest levels were ranged from 1 to 5 points respectively, which is as follows:
Table 4: Interpretation and Scale for Survey Questions on Decision-Making Styles

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Scale</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>5</td>
<td>4.51 - 5.00</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
<td>3.51 - 4.50</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>2.51 - 3.50</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>1.51 - 2.50</td>
</tr>
<tr>
<td>Very Low</td>
<td>1</td>
<td>1.00 - 1.50</td>
</tr>
</tbody>
</table>

Validity and Reliability of the Instrument

The questionnaire used in this study was divided into two parts. Part 1 was the Organizational Climate Index (OCI), which originally designed by Hoy et al. (2002) to determine teachers' perception of the school climate. This part contained 30 questions and its validity was fully verified by them.

Part 2 was adopted from a questionnaire formed by Dennis (2012) concisely based on the decision model produced by Vroom and Yetton (1973). This questionnaire had 12 questions based on Vroom and Yetton's three decision-making styles, these three styles, autocratic style, consultative style and group style, were represented by four questions for each. After the recommendations and adjustments of a bunch of experts, the validity of the final version has been professionally verified.

The details of reliability report and alpha coefficients of Part 1 and part 2 by previous studies and the current study are shown in the following table:
Table 5: Reliability of School Climate and Decision-making Styles by the Current Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Alpha Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional vulnerability</td>
<td>.60</td>
</tr>
<tr>
<td>Collegial leadership</td>
<td>.71</td>
</tr>
<tr>
<td>Achievement press</td>
<td>.66</td>
</tr>
<tr>
<td>Professional teacher behavior</td>
<td>.73</td>
</tr>
<tr>
<td>Autocratic style</td>
<td>.60</td>
</tr>
<tr>
<td>Overall</td>
<td>.79</td>
</tr>
<tr>
<td>Consultative style</td>
<td>.61</td>
</tr>
<tr>
<td>Group style</td>
<td>.77</td>
</tr>
<tr>
<td>Overall</td>
<td>.89</td>
</tr>
</tbody>
</table>

**Collection of Data**

To conduct this study, this researcher firstly obtained the permission of the selected primary school in Anning district, Lanzhou city, China. Afterwards, the proposal of this study has been called in October, 2018. Then, a professional translation agency was invited to translate the questionnaire from English to Chinese, after that, the Chinese version questionnaires was distributed to all the sampling teachers, and then the data collection was accomplished by November 1st, 2018. 75 questionnaires were distributed and 71 valid ones were eventually returned, the valid return rate reached 95%. In the process of data collection, the distribution of hard copies and collecting were carried out by the research assistant, while all the data analysis were conducted by the researcher in the beginning of November, and completed before the end of November, 2018.
Data Analysis

This study used Descriptive statistics and Pearson Product Moment Correlation Coefficient to conduct data analysis, specifically:

For objective 1, Means, Standard Deviation were used to identify the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China.

For objective 2, Means, Standard Deviation, Frequency, and Percentage were used to identify the teachers' perception towards their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

For objective 3, Pearson Product Moment Correlation Coefficient was used to identify the relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.
**Summary of the Research Process**

*Table 6: Summary of the Research Process*

<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Source of Data</th>
<th>Data Collection Method</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To identify the teachers' perception towards school climate in the primary school at Anning district, Lanzhou city, China</td>
<td></td>
<td></td>
<td>Means, standard deviations</td>
</tr>
<tr>
<td>2. To identify the teachers' perception towards their decision-making styles in the primary school at Anning district, Lanzhou city, China</td>
<td>75 full-time teachers in the primary school at Anning district, Lanzhou city, China</td>
<td>Questionnaire Part I-II</td>
<td>Means, standard deviations, Frequency, Percentage</td>
</tr>
<tr>
<td>3. To identify the significant relationship between teachers' perception towards school climate and their decision-making styles in the primary school at Anning district, Lanzhou city, China</td>
<td></td>
<td></td>
<td>Pearson Product Moment Correlation Coefficient</td>
</tr>
</tbody>
</table>
CHAPTER IV

RESEARCH FINDINGS

This chapter describes the results of the study by analyzing the data from the questionnaires. The target school for this study was a public elementary school in Anning district, Lanzhou city, China, which had a total of 75 teachers, all of whom were invited to participate in this survey. As mentioned in last chapter, 75 questionnaires were distributed and 71 copies were eventually returned, the return rate was 95 percent. The goals of this study were:

1. To identify the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China;
2. To identify the teachers' decision-making styles at the selected primary school in Anning district, Lanzhou city, China;
3. To identify the relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

In order to clarify the above objectives, the analysis results and interpretation of the data consisted of five parts, namely:

1. Demographic data of respondents;
2. Analysis of the school climate perceived by teachers;
3. The proportion of three decision-making styles;
4. Analysis of decision-making styles perceived by teachers;
5. Analysis of the relationship between school climate and decision-making
styles perceived by teachers.

Before testing the data of main objectives, the gender proportion of respondents was summarized by statistical data.

*Table 7: Frequency and Percentage of Teachers*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12</td>
<td>16.9</td>
</tr>
<tr>
<td>Female</td>
<td>59</td>
<td>83.1</td>
</tr>
<tr>
<td>Overall</td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7 was the gender proportion of the teachers in the returned questionnaires. Male teachers accounted for 16.9 percent of the total number, while female teachers, as the majority of this school, accounted for 83.1 percent.

**Research objective 1:** To identify the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China.

Descriptive Statistics were utilized to analyze the data through the following two steps, first, to determine Mean and Standard Deviation of each item of school climate with dividing the total of 30 items into four dimensions which were institutional vulnerability, collegial leadership, professional teacher behavior and achievement press. Second, to determine Mean and Standard Deviation of each dimension of school climate.
Table 8: Means and Standard Deviations of Each Item about Institutional Vulnerability of School Climate Perceived by Teachers

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional</td>
<td>Parents press for school improvement.</td>
<td>2.68</td>
<td>0.82</td>
<td>High</td>
</tr>
<tr>
<td>vulnerability</td>
<td>The school is vulnerable to outside pressures.</td>
<td>2.68</td>
<td>0.91</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Select citizens groups are influential with the board.</td>
<td>2.66</td>
<td>0.91</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Parents exert pressure to maintain high standards.</td>
<td>2.56</td>
<td>0.79</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>A few vocal parents can change school policy.</td>
<td>2.21</td>
<td>0.89</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Teachers feel pressure from the community.</td>
<td>2.17</td>
<td>0.91</td>
<td>Low</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>2.49</td>
<td>0.48</td>
<td>Low</td>
</tr>
</tbody>
</table>

As Table 8 shown, for institutional vulnerability, it was comprised by six questions, through the reversing of the interpretations, item number 1, 2, 3, and 4 were perceived relatively high level, while the perception of item number 5 and 6 were lower. Among them, the statement that "parents press for school improvement" had the highest score (2.68), and score of the statement that "teachers feel pressure from the community" was the lowest (2.17), overall, teachers' perceptions of this dimension were at a low level (Mean was 2.49).
Table 9: Means and Standard Deviations of Each Item about Collegial Leadership of School Climate Perceived by Teachers

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collegial leadership</td>
<td>The principal is friendly and approachable.</td>
<td>3.04</td>
<td>0.75</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal treats all faculty members as his or her equal.</td>
<td>2.92</td>
<td>0.95</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal maintains definite standards of performance.</td>
<td>2.89</td>
<td>0.82</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal lets faculty know what is expected of them.</td>
<td>2.85</td>
<td>0.82</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal responds to pressure from parents.</td>
<td>2.70</td>
<td>0.88</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal puts suggestions made by the faculty into operation.</td>
<td>2.70</td>
<td>0.74</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal is willing to make changes.</td>
<td>2.69</td>
<td>0.82</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The principal explores all sides of topics and admits that other opinions exist.</td>
<td>2.38</td>
<td>0.83</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>2.77</td>
<td>0.46</td>
<td>High</td>
</tr>
</tbody>
</table>

From table 9, in collegial leadership, except item number 7, the rest have gained positive perception. Overall, teachers' perception towards collegial leadership was positive (Mean was 2.77), specifically, the statement of "the principal is friendly and approachable" had the highest score (3.04) with the interpretation of "high level", and the score of "the principal explores all sides of topics and admits that other opinions exist" was the lowest (2.38) with the interpretation of "low level".
Table 10: Means and Standard Deviations of Each Item about Professional Teacher Behavior of School Climate Perceived by Teachers

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional teacher behavior</strong></td>
<td>Teachers are committed to their students.</td>
<td>3.14</td>
<td>0.76</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers respect the professional competence of their colleagues.</td>
<td>3.08</td>
<td>0.73</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers accomplish their jobs with enthusiasm.</td>
<td>3.07</td>
<td>0.76</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers help and support each other.</td>
<td>3.04</td>
<td>0.80</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers in this school believe that their students have the ability to achieve academically.</td>
<td>3.03</td>
<td>0.77</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers in this school exercise professional judgment.</td>
<td>3.01</td>
<td>0.80</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The interactions between faculty members are cooperative.</td>
<td>2.93</td>
<td>0.82</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers provide strong social support for colleagues.</td>
<td>2.70</td>
<td>0.80</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td><strong>Overall</strong></td>
<td>3.00</td>
<td>0.44</td>
<td>High</td>
</tr>
</tbody>
</table>

From table 10, the results showed that for professional teacher behavior, all eight items were given a high level of score with the interpretation as "high level" with the overall Mean of 3.00. Among them, the statement of "teachers are committed to their students" got the highest score (3.14), while the statement of "teachers provide strong social support for colleagues" revealed a relative low level (2.70) than other items in this dimension.
As shown in Table 11, teachers had a relative positive attitude towards all statements about achievement press. The highest score (3.13) was from the item of "academic achievement is recognized and acknowledged by the school" with the interpretation as "high level", and the lowest score (2.56) was from the item of "students seek extra work so they can get good grade" with the interpretation as "high level". Overall, the Mean was 2.86 with the interpretation as "high level".

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement press</td>
<td>Academic achievement is recognized and acknowledged by the school.</td>
<td>3.13</td>
<td>0.81</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The learning environment is orderly and serious.</td>
<td>3.03</td>
<td>0.84</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Students respect others who get good grades.</td>
<td>3.01</td>
<td>0.87</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Teachers &quot;go the extra mile&quot; with their students.</td>
<td>2.87</td>
<td>0.79</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Students in this school can achieve the goals that have been set for them.</td>
<td>2.82</td>
<td>0.88</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The school sets high standards for academic performance.</td>
<td>2.77</td>
<td>0.78</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Students try hard to improve on previous work.</td>
<td>2.65</td>
<td>0.78</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Students seek extra work so they can get good grade.</td>
<td>2.56</td>
<td>0.84</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>2.86</td>
<td>0.43</td>
<td>High</td>
</tr>
</tbody>
</table>


Table 12: Means and Standard Deviations of Each Dimension of School Climate Perceived by Teachers

<table>
<thead>
<tr>
<th>School Climate</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Teacher Behavior</td>
<td>3.00</td>
<td>0.44</td>
<td>High</td>
</tr>
<tr>
<td>Achievement Press</td>
<td>2.86</td>
<td>0.43</td>
<td>High</td>
</tr>
<tr>
<td>Collegial Leadership</td>
<td>2.77</td>
<td>0.46</td>
<td>High</td>
</tr>
<tr>
<td>Institutional Vulnerability</td>
<td>2.49</td>
<td>0.48</td>
<td>Low</td>
</tr>
<tr>
<td>Overall</td>
<td>2.78</td>
<td>0.33</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 12 described the Mean and Standard Deviation of each dimension of school climate perceived by the teachers. Overall, the teacher's perception of school climate was 2.78, indicating a high-level perception for the school climate according to the interpretation explained in the above chapter. Among them, the Mean of institutional vulnerability was lower (2.49), described as "low level", while, the Mean of collegial leadership (2.77), achievement press (2.86), and professional teacher behavior (3.00) were described as the "high level".

Research objective 2: To identify the teachers' decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

The Descriptive Statistic analyzing process was divided into three sections, which were the proportion of three decision-making styles, the analysis of each item about decision-making styles with dividing the total of 12 items into three different dimensions which were autocratic style, consultative style and group style, then analyzed Mean and Standard Deviation of each dimensions of decision-making styles perceived by teachers in the target school.
Table 13: Teachers' Decision-making Styles

<table>
<thead>
<tr>
<th>Decision-making Styles</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>31</td>
<td>43.7</td>
</tr>
<tr>
<td>Consultative</td>
<td>29</td>
<td>40.8</td>
</tr>
<tr>
<td>Autocratic</td>
<td>11</td>
<td>15.5</td>
</tr>
<tr>
<td>Overall</td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

The researcher calculated the scores of each teacher on each item represented every decision-making style, then added and got the total score for each style, the one with the highest score was considered to be the teacher's own decision-making style. As shown in table 8, group decision-making styles prevailed (43 percent), followed by consultative decision-making style (40.8 percent) and autocratic decision-making style (15.5 percent), indicating that teachers in this school were more inclined to make decisions through group work.

Table 14: Means and Standard Deviations of Each Item about Autocratic Decision-making Style Perceived by Teachers

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic style</td>
<td>I respect the majority view of school members despite my disagreement.</td>
<td>3.75</td>
<td>0.84</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>I have self-confidence that I am able to manage any problem faced and make a decision by myself.</td>
<td>3.25</td>
<td>0.87</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>When there is a problem in a school, I make a decision to solve it by myself.</td>
<td>3.14</td>
<td>0.93</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>I am certain that other school members will have to accept what I decide.</td>
<td>3.00</td>
<td>1.06</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>3.28</td>
<td>0.49</td>
<td>Neutral</td>
</tr>
</tbody>
</table>
As table 14 showed the mean scores for items of autocratic decision-making style. Among them, the highest score (3.75) was from "I respect the majority view of school members despite my disagreement", which meant that the teachers respected the majority view of school members despite their disagreement, while the lowest score (3.00) was from "I am certain that other school members will have to accept what I decide", which meant that the teachers were certain that other school members would have to accept what they decided.

Table 15: Means and Standard Deviations of Each Items about Consultative Decision-making Style Perceived by Teachers

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I request necessary information from one or more members regarding a problem or issue faced; however, I decide on a solution by myself.</td>
<td>3.44</td>
<td>0.89</td>
<td>Neutral</td>
</tr>
<tr>
<td>Consultative style</td>
<td>I discuss a problem with other school member individually in order to obtain their ideas and suggestions.</td>
<td>3.35</td>
<td>0.87</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>I believe that it is better to consult other school members before making a decision on a problem that I face.</td>
<td>3.34</td>
<td>0.91</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Even though I take all suggestions from other school members into consideration, I base by decision on my judgment.</td>
<td>3.15</td>
<td>1.04</td>
<td>Neutral</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td>3.32</td>
<td>0.49</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

From table 15, for consultative decision-making style, all the four items got a perception of "neutral" for this dimension, among them, item 5 got the highest score (3.44), indicating that the teachers requested necessary information from one or more members regarding a problem or issue faced; however, they decided on a solution by themselves, while, item 8 got the lowest score (3.15), indicating that even though the teachers took all
suggestions from other school members into consideration, they based by decision on their judgments.

*Table 16: Means and Standard Deviations of Each Items about Group Decision-making Style Perceived by Teachers*

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Mean</th>
<th>S.D.</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group style</td>
<td>I believe that a group decision making is effective.</td>
<td>3.41</td>
<td>0.94</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>I try to co-ordinate with other school members in order to involve them in a decision making process regarding issues related to them.</td>
<td>3.38</td>
<td>0.96</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>I believe that it is important to have all team members take part in making a decision on school issues.</td>
<td>3.32</td>
<td>1.04</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>I seek suggestions from other school members by having a group discussion on school issues.</td>
<td>3.18</td>
<td>0.98</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>Overall</td>
<td>3.32</td>
<td>0.62</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

As what has been shown in table 16, the teachers' perception of using group decision-making style were "neutral". The highest level was from the item of "I believe that a group decision making is effective" with score of 3.41, which meant they sometimes believed that a group decision making was effective, while the lowest level was from the item of "I seek suggestions from other school members by having a group discussion on school issues" with the score of 3.18, which meant that sometimes teachers seek suggestions from other school members by having a group discussion on school issues.
Table 17: Means and Standard Deviations of Teachers' Decision-making Styles

<table>
<thead>
<tr>
<th>Decision-making Styles</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autocratic</td>
<td>3.28</td>
<td>0.49</td>
<td>Neutral</td>
</tr>
<tr>
<td>Consultative</td>
<td>3.32</td>
<td>0.49</td>
<td>Neutral</td>
</tr>
<tr>
<td>Group</td>
<td>3.32</td>
<td>0.62</td>
<td>Neutral</td>
</tr>
<tr>
<td>Overall</td>
<td>3.33</td>
<td>0.44</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

Table 17 is the Mean and Standard Deviation of the three decision-making styles. The Mean of these styles, autocratic decision-making style (3.28), consultative decision-making style (3.32) and group decision-making style (3.31), had small differences. From the data shown in Table 13, the score of group decision-making style was the highest, but in general the level of each style tended to be consistent, all expressed as "neutral", which meant that teachers used these styles equally rather than just using a particular style.

Research objective 3: To identify the relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

Pearson Product Moment Correlation Coefficient was used. The first step was to calculate Pearson Correlation between school climate and decision-making styles in general, The second step was to test the relationship between the four components of school climate and decision-making styles.
Table 18: Pearson Product Moment Correlation between the Overall School Climate and Decision-making Styles Perceived by Teachers

<table>
<thead>
<tr>
<th>Correlation test</th>
<th>Decision-making Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Climate</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

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

Table 18 is the analysis of the relationship between teachers' perception towards the overall school climate and their decision-making styles. The result showed that \( r = .376, \) Sig. (2-tailed) was .001, which was less than .05. That is, at the level of .05 (even .01), there was a positive correlation between school climate and decision-making styles perceived by teachers. Therefore, the research hypothesis was accepted, which means there was a significant relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

Table 19: Pearson Product Moment Correlation between Each Dimension of School Climate and Decision-making Styles Perceived by Teachers

<table>
<thead>
<tr>
<th>Decision-making styles</th>
<th>Institutional vulnerability</th>
<th>Collegial leadership</th>
<th>Achievement press</th>
<th>Professional teacher behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.041</td>
<td>.336**</td>
<td>.427**</td>
<td>.320**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.733</td>
<td>.004</td>
<td>.000</td>
<td>.007</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 19 illustrates further about the relationships between the four dimensions that make up school climate and teachers' decision-making styles. The researcher also used Pearson Product Moment Correlation Coefficient to test the results. The outcomes showed that the sig. (2-tailed) between collegial leadership, achievement press, professional teacher behavior and decision-making styles were .004 ($r = .336$), .000 ($r = .427$), and .007 ($r = .320$), which were all less than .05 (even .01), indicating that these three factors were closely related to decision-making styles at .01 level. Among them, achievement press was the most significantly related. However, institutional vulnerability was not associated with decision-making styles with sig. (.733) more than .05.
CHAPTER V

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

This chapter is a detailed statement and explanation about the results of the data analysis of this study. First, the process of this study is reviewed and summarized, including objectives, hypothesis, and research methodology. Second, the main research findings, conclusion, and discussions are elaborated. Finally, recommendations are given to the target school and future researchers.

Summary of the Study

As the main place to implement systematic education, schools are given a great responsibility of cultivating talents. In this context, the researcher targeted a primary school in Anning district, Lanzhou city, China to study the following objectives to help the school managers and teachers improve school effectiveness:

1. To identify the teachers' perception towards school climate at the selected primary school in Anning district, Lanzhou city, China;
2. To identify the teachers' decision-making styles at the selected primary school in Anning district, Lanzhou city, China;
3. To identify the relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

The research hypothesis was derived from the above objectives: there is a significant relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.
The study used all the 75 teachers in the target school as the respondents, and utilized quantitative method to conduct statistical analysis of the data fed back from the questionnaires, which confirmed that the hypothesis of this study was accepted.

Findings

The findings of this study consisted of the following five parts:

1. Demographic data of respondents. In the 71 returned questionnaires (the distributed questionnaires was 75), the gender proportion of male teachers and female teachers were 16.9 percent and 83.1 percent, respectively.

2. School climate perceived positively by teachers. According to the results of statistical analysis, the teachers in the target school had a high attitude towards professional teachers' behavior (3.00), while teachers' perception of institutional vulnerability was negative with the Mean of 2.49.

3. Teachers' decision-making styles. In terms of the preferences of decision-making style, 43.7 percent of the school teachers preferred group decision-making styles, 40.8 percent tended to practice consultative decision-making style, while others (15.5 percent) performed autocratic decision-making style.

4. All the three decision-making styles were perceived as "neutral" used by teachers. Among them, the Mean of autocratic decision-making style was 3.28 regarded as the lowest; and the Mean of group decision-making style (3.31) was relatively higher than the other two styles.

5. The relationship between school climate and decision-making styles perceived by teachers. In general, Pearson Correlation showed that sig. (2-tailed) between school climate and decision-making styles was .001 (r=.376), which was less than .05, indicating that there was a positive correlation between these two variables at .05 level, so the
hypothesis of this study was accepted, which means there was a significant relationship between teachers' perception towards school climate and their decision-making styles at the selected primary school in Anning district, Lanzhou city, China.

**Conclusion**

This study surveyed all the teachers in a primary school from the selected primary school in Anning district, Lanzhou city, China for determining the teachers' perception towards school climate and their decision-making styles. The study found that the teachers in this school had a positive attitude towards the school climate. All the three decision-making styles were perceived as "neutral" used by the school teachers. Among them, the group decision-making style was the most preferred and used, the autocratic decision-making style was the least preferred and used. The relationship test result of this study confirmed that there was a weak positive relationship between teachers' perception towards school climate and their decision-making styles in the selected primary school in Anning district, Lanzhou city, China.

**Discussions**

The results have shown that the teachers' attitude towards school climate was positive in target school. The role of school climate in the education process should not be ignored, especially as the main body of the implementation of education, how teachers feel the atmosphere and climate of their working environment is closely related to their educational behavior (Liu et al., 2014). Cohen et al. (2009) found that a positive school climate is connected with the development and retention of teachers, which in turn affects students' healthy development and academic achievement. Identical with that, the results of Johnson & Stevens' (2006) article revealed that school climate perceived by the teachers is
significantly associated to student achievement.

In this study, the teachers' enthusiastic attitude towards collegial leadership of school climate indicated that the teachers in the target school have a positive view of the principal's leadership, the principal can take care of the teachers' social needs and be friendly to them with fairly treatments in the process of achieving the set goals. Hoy & Feldman (1987) believed that the leadership of the principal and the principal's concern and resource support for the subordinates are one of the important factors for organizational health. Tajasom & Ahmad (2011) were in tune with it, they thought that the importance of the principal is that he or she sets standards and expectations for teachers and encourages morale through positive feedback. Leadership with beliefs and values is one of the indispensable factors of reaching school achievement.

Similarly, the teachers' feelings about achievement press were positive, indicating that the school's high but achievable academic goals are recognized by the teachers in target school. The teachers respect the students who meet the standards, as well as students themselves. As Thapa et al. (2013) explained, a certain level of press can motivate students' potential, and in this positive learning environment, students can be facilitated to attain higher academic achievement.

In addition, the professional teacher behavior also had a high score, which shows that the target school's teachers have relative good professional abilities and attitudes, including professional skills, respect and help colleagues, and focus on the commitment of students. A healthy and good school climate has a positive guiding effect on teachers' behavior management (Yao et al., 2015). Under the environment that the teachers' self-efficacy is improved and job satisfaction is increased, students' behavior management ability can be effectively obtained, as well as learning outcome (Malinen & Savolainen, 2016).

However, as the data showed, teachers had a low-level perception on
institutional vulnerability, which seems to be very different from their attitude towards the
other three factors, but this does not represent a negative view. The low vulnerability
indicated that the school has a strong ability to withstand stress. When facing external
pressure, the school can protect the integrity of the organization and resist the impact of
unfavorable factors on the organization without being susceptible to external pressure. As
pointed out by Yao et al. (2015), in a relatively stable school climate, teachers can manage
emotions more effectively and focus more on teaching.

This study found that group decision-making style was the most preferred and
used by the teachers in target school, while the autocratic style was used as the least. It
showed that most teachers in target school would like using teamwork to solve problems, it
was identical to the result of Panyacekka's (2015) study on instructors' perception of decision-
making styles. According to Vroom and Yetton's (1973) theory, which decision-making style
to choose to solve problem depends on a series of factors, personal experience and the
personality of the decision-maker, the urgency of the problem to be solved, and the time limit
all have an impact on decision-making behavior.

For the school teachers, they are both the managers and decision-makers of their
own classrooms, and the participants in the entire school teaching system as well. Therefore,
the teacher's personal decision about teaching is related to the process and quality of the
entire school education. It not only depends on the teacher's teaching experience and the
degree of understanding of their students, but also depends on the teachers' macro awareness
to having a certain degree of comprehending of the organizational policy (Mesut, 2011).
Therefore, in terms of school goals, group decision-making style is a way to benefit the
overall quality of teaching.

However, in this study, although the implementation of the group approach to
making decisions was more prevalent in target school, the number of teachers who preferred
a consultative approach was also impressive. This type of decision-maker has a sense of team and is willing to listen to others, but in the decision-making process, s/he always dominates (Vroom & Yetton, 1973). This style has certain advantages in teaching activities, that is, when teachers (especially young teachers) lack certain leadership and have sufficient time to make final decisions, it is definitely advisable to help themselves by consulting other experienced teachers separately (Maringe, 2012).

The statistical results were consistent with what the researcher expected, that is, the school climate of the target school is significantly related to the decision-making styles chosen by the teacher in the workplace. Moos (1973) believed that human environment, including the ecological environment, organizational structure, organizational climate, and so on, will have an impact on individual and group behavior. For teachers in organizations (schools), their behavior is closely connected with school climate. Teachers' professional behaviors, such as the improvement of professional skills, cooperation with colleagues, commitment to students, and decision-making (Hoy et al., 2002), are influenced by the surrounding environment and climate that they feel.

According to Savas and Karakus (2012), teachers' in-role (task performance) and extra-role (organizational citizen behavior) performance can be effectively and positively predicted by a healthy school climate. Specifically, three dimensions of school climate (collegial leadership, achievement press, professional teacher behavior) were significantly linked to decision-making styles. When perceiving a friendly, supportive leadership, teachers are more willing to participate in group discussions to share their information and opinions (Thapa et al., 2013). At the same time, certain achievement pressures, whether for students or teachers themselves, are an incentive (Sia-ed, 2016), which can motivate teachers to seek more ways, such as improving their professional skills, consulting other experienced teachers, working with others to accomplish the school goals. In addition, the target school teachers
have a positive attitude towards professional teacher behavior, indicating that the relationship between colleagues is harmonious, and committed to professional development with mutual assistance. In this state, teachers are naturally willing to solve teaching problems in a professional and collective way to maximize the effectiveness of the school.

Recommendations

Recommendations for Stakeholders of School

Based on the data survey results of the target school, the author gave the following suggestions to help the school improve school effectiveness.

1. School principals and managers, as well as teachers, should recognize the importance of school climate and learn how to measure it, and implement data-driven decision making.

2. As the primary factor in shaping school climate, the principal needs to fully clarify his or her leadership style. Through observation and certain investigations, it is necessary to examine whether his leadership style drives the progress of the subordinates or not, then consolidate or improve his or her leadership capacity based on the feedback. At the same time, treat teachers in a more friendly and fair manner so that to enhance their cohesiveness, to encourage them to speak freely and work together to optimize school effectiveness.

3. The school needs to improve its professional development platform. In addition to providing training of professional skills, it can also increase the moral training. The purpose is to help teachers treat colleagues and students with a more inclusive and collaborative attitude and deepen their understanding about professional teacher behavior.

4. Students' academic outcome is one of the important indicators to measure teachers' teaching achievements. Therefore, regular reports can be included in the school
calendar, at these days teachers need to summarize the students' recent academic achievements. A certain level of acceptable pressure can help teachers inspire more potential.

5. Teachers need to fully understand their decision-making style and the strengths and weaknesses of each style. In the process of solving practical teaching problems, a single decision-making style is not necessarily the most suitable. Teachers need to choose the decision-making style that can exert the best performance according to the present situation, such as their own experience and the timeliness of the problem.

6. The school could provide various forms of teacher communication opportunities, such as symposium, course observation and evaluation. In this way, teachers can learn the teaching experiences from each other, then check and fill in gaps, making their advantages and disadvantages to be clearer, thus providing ideas for future decision-making process.

Recommendations for Future Research

The purpose of this study was to survey the relationship between teachers' perception towards school climate and decision-making styles in a selected primary school in Anning district, Lanzhou city, China. The questionnaire of school climate (Organizational Climate Index) was composed of four parts, including institutional vulnerability, professional teachers' behavior, collegial leadership and achievement press, and the relationship between them and decision-making styles was measured, respectively. The researcher hopes that future researchers will look at the relationship between these two variables from more dimensions so that to enrich this topic through other theories about school climate and decision-making styles. In addition, this study started from the teachers' point of view, if from the perspective of the principal, the students, even the parents, the conclusions may be different. Furthermore, this study is to explore the relationship between school climate and
decision-making styles, future scholars can carry out deeper research, such as whether the
decision-making styles can be positively predicted by school climate, whether there is a
correlation between the four dimensions of school climate, and so on.

Finally, due to the limitations of this study, such as the disparity in the gender ratio of respondents, and the target school is only one, so for Chinese scholars, especially those who are interested in studying school climate and decision-making style in Lanzhou, the researcher hopes more diverse and comparative studies based on more respondents will be done, such as whether teachers have different views on these two variables between public and private schools, whether male and female have the same perception, or whether there are significant differences between different age distribution. This topic may be sublimated with multi-faceted research.
REFERENCES


Maringe, F. (2012), Staff involvement in leadership decision making in the UK further education sector: Perceptions of quality and social justice. Journal of Educational Administration, 50(4), 463-482.


Questionnaires

School Climate & Decision-making Styles

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2
Letter of Certification

This is to certify that Ms. Yi Dan's Questionnaire for her Master's thesis in Assumption University of Thailand were translated and edited into standardized Chinese simplified version by our professional translator from RealLearning Center & Translation Institute. The translated version was exactly developed based on the original English one, and a back-translation procedure was used for checking the translation validity. Thus, the quality of the translated Chinese version was confirmed herein this letter.

RealLearning Center & Translation Institute
Bangkok, Thailand

Mr. Xiang, Qiong
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October 22, 2018
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Thesis: The Relationship Between Teachers' Perception Towards School Climate and Their Decision-Making Styles at a Primary School in Anning District, Lanzhou, China.