

A COMPARATIVE STUDY OF TEACHERS' PERCEPTION TOWARDS SCHOOL ENVIRONMENT ACCORDING TO THEIR DEMOGRAPHICS AT ZHAOTONG EXPERIMENTAL PRIMARY SCHOOL, YUNNAN PROVINCE, CHINA

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Abstract: This study attempted to determine and compare the teachers' perception towards school environment according to their demographics at Zhaotong experimental primary school, Yunnan province, China. A total of 157 teachers from grade 1 to 6 got involved in this study during the academic year 2016-2017. The researcher adopted the questionnaire based on Kate (2005) to determine teachers' perception towards school environment of 6 indicators including health policies, physical environment, social environment, school-community relation, personal skill building, and access to health services at Zhaotong experimental primary school. The study found that the total teachers' perception towards school environment were positive. There was a significant difference of teachers' perception towards school environment among teachers in different teaching grades at Zhaotong experimental primary school.

Keywords: School Environment, Teachers' Perceptions, Demographics.

Introduction

Recently, researchers from different countries in the world have concerned about the school environment as it may influence students' and teachers' performance. From some international cases, it is obvious to see that many countries in the world have begun to attach importance to the school environment, continuous innovation and development, in order to provide students with a good learning and communicative environment. Such as Samdal, Wold & Bronis (1999) used data from two countries in Eastern Europe and Western Europe to analyze school-age children's health behavior and found that school environment affected students' and teachers' performance.

In China, under the impetus of the economy, the focus on the quality of education is also rising. In the process of improving the teaching quality at the same time, many teachers and schools also faced the workplace stress or school environment. Therefore, providing a comfortable environment for students and

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teachers is one of the pressing problems that need to be addressed. As all know, China's education is highly examination-oriented, which is one of the characteristics of Chinese education. This resulted in much stress to the students, parents and teachers. Therefore, school's environment not only related to the students' achievement, but also related to the teachers' performance professional development and parents' focus.

The whole society starts to get more and more attention on the school environment, especially primary school environment (Bullard, 2010). As the only local public school, directly under the Municipal Education Bureau, Zhaotong Experimental Primary School strictly follows the government's direction; the Ministry of Education of Yunnan Province has formulated the "Basic Standards for Running Schools of Compulsory Education in Yunnan Province". Though public schools must follow the government standards to set up a basic school campus conditions as the environment, what the school leaders focused is whether or not the current school environment is good enough and could facilitate the quality of teaching, as there was no previous study conducted in this school, thus, it is very necessary to investigate the teachers' perception towards the school environment in this school at this period.

Research Objectives

There were three research objectives:

1. To identify the teachers' demographics including gender, age, teaching grade, teaching experiences and educational background at Zhaotong experimental primary school.
2. To identify the teachers' perception of school environment at Zhaotong experimental primary school.
3. To compare the differences of the teachers' perception towards school environment according to their gender, age, teaching grade, teaching experiences and educational background at Zhaotong experimental primary school.

Literature Review

The world health organization (WHO) integrated the conference in the 1980s thought, clarified the nature of the health, healthy control and the process of improving health (World Health Organization [WHO], 1993). The HPS approach has been developed as a global strategy for strengthening school health, thereby improving the health of teachers and students. HPS focuses on the following indicators: Health policy, Physical environment, Social environment, School-community relation, Personal skill building, Access to health services. However, the HPS approach is limited to the school staff, parents, and other social networks within the community (World Health Organization [WHO], 2010).

Social ecology theory is an evolving paradigm. Bronfenbrenner (1979) provided an overall framework to solve multiple areas of research, including the school environment at the same time. It was originally used effects research. The social ecological theory needs long-term background and research from the public health and psychology.

Grounded theory is a data collection and analysis of data of a process, it is based on the reality, so is suitable for qualitative research. Grounded theory in the process of analysis, the researchers study based on the data. Through concept comparison, the researchers can find in the instance “when, why, and under what the conditions these themes occur in the text” (Strauss & Corbin, 1998). By comparing constantly, make the researchers has rich concept, study of a particular model.

According to Moore (2012), some American states looked for ways to increase the responsibility of the student's result, so the more increase the burden of the teachers and schools.

Teacher's work in the United States was one of the most stressful job (Dworkin, Haney, Dworkin, & Telschow, 1990). The teacher's overall satisfaction and attitude and the relationship between the grades were not separate. And teachers' perceptions of school seriously affect the community of schools, students and school climate. Teacher working in high levels of stress, would lead to the backwardness and reduce student's motivation

According to Moore (2012), her study results showed that the school environment in the United States to a public-school teacher satisfaction played a vital role. When the school environment was positive cases, the teacher's not satisfaction is reduced, so the teacher awareness of positive education teachers was more satisfied with their work.

Conceptual Framework

Figure 1 below is the conceptual framework, which explains the study's variables and the design of the study purposes.

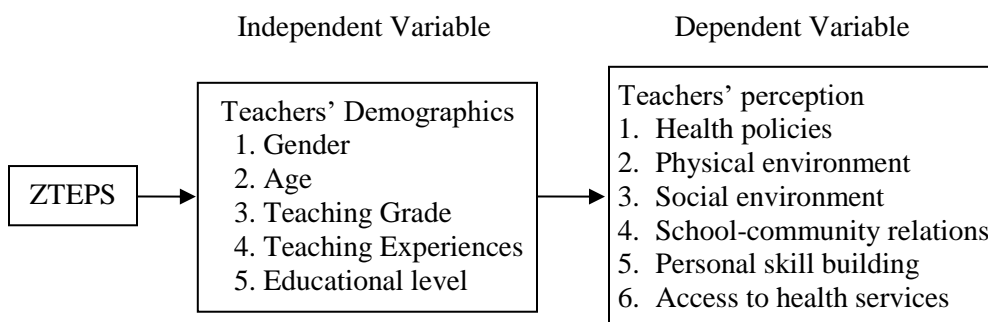


Figure 1: Conceptual Framework of This Study

Research Instrument

This study aimed to determine and compare the teachers' perception towards school environment according to their demographics at Zhaotong experimental primary school, Yunnan province, China in the academic year of 2016-17.

This research was designed as a quantitative and comparative study. The questionnaire had total 40 questions, concerning the 6 important indicators of school environment. In the part I of questionnaire aim to survey the teachers' demographics,

including their gender, age, grade, teaching experiences and educational level; in the part II of questionnaire was to determine the teachers' perceptions on the school environment.

This study adopted Kate's (2005) questionnaire of 40 items with 6 indicators of teachers' perception towards school environment. The reliability of this questionnaire as Kate (2005) reported was .88 for its Cronbach's Alpha, it reached at .89 in the current study. Kate's (2005) English version questionnaire was translated into Chinese simplified language by a legal translation center in Bangkok.

Population

The population of this survey was all the 157 full-time teachers from teaching Grade 1 to Grade 6 during academic year from 2016 to 2017, in Zhaotong Experimental Primary School, Yunnan province, China.

Findings

The findings of this study based on three primary objectives.

Research Objective one

Table 1 showed that among 125 teachers, 93 of them (74.4%) were female; 32 of them (25.6%) were male.

Table 1: Gender of Teachers

Gender	Number	Percent
Male	32	25.6
Female	93	74.4
Total	125	100.0

Table 2 showed that among 125 teachers, 54 of them (43.2%) were 31 to 40 years old; 39 of them (31.2%) were 41 to 50 years old; 27 of them (21.6%) were 30 and below years old; 5 of them (4.0%) were 51 and above years old.

Table 2: Age of Teachers

Age	Number	Percent
30 and below	27	21.6
31-40	54	43.2
41-50	39	31.2
51 and above	5	4.0
Total	125	100.0

Table 3 showed that among 125 teachers, 23 teachers (18.4%) were teaching 2 or more grades; 21 teachers (16.8%) were teaching Grade 4; 18 teacher (14.4) were teaching Grade 2; 16 teachers (12.8%) were teaching Grade 1; 17 teachers (13.6%) were teaching Grade 6; 15 teacher (12.0%) were teaching Grade 3; 15 teacher (12.0%) were teaching Grade 5.

Table 3: Teaching Grade of Teachers

Teaching Grade	Number	Percent
Grade 1	16	12.8
Grade 2	18	14.4
Grade 3	15	12.0
Grade 4	21	16.8
Grade 5	15	12.0
Grade 6	17	13.6
Teach 2 or more grades	23	18.4
Total	125	100.0

Table 4 showed that among 125 teachers, 35 teachers (28.0%) were have 6 to 10 years teaching experiences; 34 teachers (27.2%) were have 5 years and below teaching experiences; 31 teachers (24.8%) were have 21 to 30 years teaching experiences; 25 teachers (20.0%) were have 11 to 20 years teaching experiences.

Table 4: Teaching Experiences of Teachers

Teaching experiences	Number	Percent
5 years and below	34	27.2
6-10 years	35	28.0
11-20 years	25	20.0
21-30 years	31	24.8
Total	125	100.0

Table 5 showed that among all teachers, 104 teachers (83.2%) got bachelor degree; 21 teachers (16.8%) got teaching diploma.

Table 5: Educational Level of Teachers

Educational level	Number	Percent
Teaching Diploma	21	16.8
Bachelor Degree	104	83.2
Total	125	100.0

Research Objective Two

Table 6 showed the overall result of the mean score of 3.65, in the range of 3.51-4.50, which meant teachers' perception towards school environment, was "positive" for the 6 indicators in Zhaotong experimental primary school.

Among 6 indicators, the highest teachers' perception towards school environment is about the *Physical Environment* (3.83), the lowest teachers' perception towards school environment is about *Access to Health Services* (3.53). As result, teachers' perceptions with 6 indicators are "positive", but teachers' perceptions towards access to health services was lowest than other 5 indicators.

Table 6: Summary of Total Means and Standard Deviation for Teachers' perceptions towards School Environment at the Zhaotong Experimental Primary School in Yunnan Province, China (n=125)

Teachers' perception	Mean	S.D.	Interpretation
1. Health policies	3.80	.84	Positive
2. Physical environment	3.83	.86	Positive
3. Social environment	3.61	.85	Positive
4. School-community relations	3.55	.91	Positive
5. Personal skill building	3.62	.86	Positive
6. Access to health services	3.53	.92	Positive
Total perception	3.65	.78	Positive

Research Objective Three

Table 7 below showed the comparison of teachers' perceptions towards school environment according to their gender. The result of t-value was $-.809$ and Sig (2-tailed) was $.420$; which was bigger than $.05$ at the $.05$ level of significance. Therefore, the result was interpreted as there are no significant differences of the teachers' perception towards school environment according to their gender.

Table 7: Comparison of (T-test Result) Teachers' Perceptions towards School Environment according to Their Gender (N=125)

Gender	Mean	S.D.	t	df	Sig. (2- tailed)
Male	3.55	.704	$-.809$	122	$.251$
Female	3.68	.811			

Table 8 below showed the comparison of teachers' perceptions towards school environment according to their educational level. The result of t-value was -1.410 and Sig (2-tailed) was $.161$; which was bigger than $.05$ at the $.05$ level of significance. Therefore, the result was interpreted as there were no significant differences of the teachers' perception towards school environment according to their educational level.

Table 8: Comparison of (T-test Result) Teachers' Perceptions towards School Environment according to Their Educational Level (N=125)

Educational level	Mean	S.D.	t	df	Sig. (2- tailed)
Teaching Diploma	3.87	.751	1.410	122	$.161$
Bachelor Degree	3.61	.787			

Table 9 below showed the comparison of teachers' perceptions towards school environment according to their age. In the One-way ANOVA data analysis result, the significant value is $.091$; which was bigger than $.05$ at the $.05$ level of significance. Therefore, the result was interpreted as there are no significant differences of the teachers' perception towards school environment according to their age.

Table 9: Comparison of (One-way ANOVA Result) Teachers' Perceptions towards School Environment according to Their Age (N=125)

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.957	3	1.319		
Within Groups	71.737	120	.598	2.206	.091
Total	75.694	123			

Table 10 below shows the comparison of teachers' perceptions towards school environment according to their teaching experiences in Zhaotong experimental primary school. In the One-way ANOVA data analysis result, the significant value is .015. As the significant value was smaller than .05 at .05 level of significance.

Table 10: Comparison of (One-way ANOVA Result) Teachers' Perceptions towards School Environment according to Their Teaching Experiences (N=125)

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.315	3	2.105		
Within Groups	69.379	120	.578	3.641	.015
Total	75.694	123			

The Post Hoc tests data analysis result presented in Table 11 below, the result showed in fact, the significant value of each pair was bigger than .05 as the Scheffe test identified. Therefore, the final conclusion was "there were no significant differences of the teachers' perception towards school environment according to their experiences.

Table 11: Multiple Comparison of (Post Hoc Tests Result) Teachers' Perceptions towards School Environment according to Their Teaching Experiences (N=125)

Teaching Experiences (I)	Teaching Experiences (J)	Mean Difference (I-J)	Sig.
5 years and below	6-10 years	.016	1.000
	11-20 years	-.471	.150
	21-30 years	-.425	.173
6-10 years	5 years and below	-.016	1.000
	11-20 years	-.487	.126
	21-30 years	-.440	.144
11-20 years	5 years and below	.471	.150
	6-10 years	.487	.126
	21-30 years	.047	.997
21-30 years	5 years and below	.425	.173
	6-10 years	.440	.144
	11-20 years	-.047	.997

Table 12 below shows the comparison of teachers' perceptions towards school environment according to their teaching grade in Zhaotong experimental primary

school. In the One-way ANOVA data analysis result, the significant value is .000; which was smaller than .05 at the .05 level of significance. Therefore, the result was same as the research hypothesis based on research objective of this study.

Table 12: Comparison of (One-way ANOVA Result) Teachers' Perceptions towards School Environment according to Their Teaching Grade (N=125)

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	22.357	6	3.726		
Within Groups	53.337	117	.456	8.174	.000
Total	75.694	123			

The researcher chooses to use Scheffe in Post Hoc tests. The Post Hoc tests data analysis result shows in Table 13 below, the data result showed that significant differences of the teachers' perception towards school environment among Grade 2 and Grade 1, Grade 4 and Grade 1, Grade 6 and Grade 1, and Grade 2 and teaching 2 or more grade were existing at Zhaotong experimental primary school.

Table 13: Multiple Comparison of (Post Hoc Tests Result) Teachers' Perceptions towards School Environment according to Their Teaching Grade (N=125)

Teaching Grade (I)	Teaching Grade (J)	Mean Difference (I-J)	Sig.
Grade 1	Grade 2	-1.394	.000*
	Grade 3	-.601	.438
	Grade 4	-.836	.037*
	Grade 5	-.774	.128
	Grade 6	-1.118	.002*
	Teach 2 or more grades	-.379	.811
Grade 2	Grade 1	1.394	.000*
	Grade 3	.793	.103
	Grade 4	.558	.366
	Grade 5	.620	.338
	Grade 6	.276	.961
	Teach 2 or more grades	1.015	.002*
Grade 3	Grade 1	.601	.438
	Grade 2	-.793	.103
	Grade 4	-.235	.984
	Grade 5	-.173	.998
	Grade 6	-.517	.611
	Teach 2 or more grades	.223	.987

* <.05

Discussion

1. The Teachers' Demographics

According to the finding of this study, the researcher found that the teachers' gender, age, teaching grade, teaching experiences and educational background have significant effect the teachers' perception towards school environment. The different teachers' demographics factors had different perceptions towards school environment.

According to Jing (2016), teachers' demographics factors, there are different job satisfaction and motivation have different teachers' perception. At the same time, the most studies also showed that the demographic factors of teachers play an important and unique role in teacher decision-making, whether they leave or remain in their schools.

2. The Teachers' Perception towards School Environment

The total mean score of teachers' perceptions towards school environment at Zhaotong experimental primary school, was 3.650 in the range of 3.51-4.50 levels of teachers' perceptions level was "positive" at Zhaotong experimental primary school in Yunnan province, China. This indicated that the teachers' perceptions towards school environment were positive.

A study was carried out by Dunlop and Macdonald (2004) where they pointed out that the teachers are in good physical condition and their level of absence is low, in Scotland. Teachers are beginning to focus on health reports.

Shell (2015) counted research on "Effect of the physical environment on teacher satisfaction with indoor environmental quality in early learning schools" and the main focus of this study was to find out the physical environment predicts the teacher's perception of environmental quality, the teacher's overall perceptions and the relationship between the senses.

A study carried out by Stewart (2016) where he pointed out main focus of this study was to find out the conceptualization of the classroom social environment, in order to measure the teacher's perceptions at the classroom level, shows that the teacher has different effects on the different dimensions of the classroom social environment to determine the teacher's perception of the classroom social environment has a decisive factor.

A study was carried out by Nebor (1984) counted research on "The Role of the Teacher in School-Community Relations" and the main focus of this study was to find out the role of teachers in the social environment shows that "positive" is very important because the teacher is the pillar of the educational system.

A study carried out by Choy, Angela, Ming, & Sylvia, (2013) where he pointed out main focus of this study was to find out that to monitor the teacher in the teaching process of consciously teaching knowledge and the development of personal skills for the purpose of the study shows the development of personal skills to strengthen the education program, which teachers for personal knowledge and skills development in the first three years of positive performance.

According to Nader, Gilman, & Bee (1980), pointed out main focus of this study was to find out that the school provide preventive health care services for

students and teachers, and are often facilitated by students and teachers who are difficult to access health care.

Wasala (2003) where they pointed out that the teacher's assessment of the school environment is due to their stress and demand at work. In other words, the influence of the school environment on the teacher's thoughts and actions, which determines the teacher's different views on the school environment

3. Comparison of Teachers' Perception towards School Environment according to Their Gender, Age, Teaching Grade, Teaching Experiences and Educational Background

From testing the research hypothesis, it revealed that the probable score of comparing teachers' perceptions towards school environment by their age, gender, teaching experiences and educational background are higher than the significant level 0.05. But the probable score of comparing teachers' perceptions towards school environment by their teaching grade is less than the significant level 0.05. Therefore, the research accepted hypothesis, which means there were significant differences in teachers' perceptions towards school environment according to their teaching grade. In this study, the researcher assumed there would be many factors that would influence teachers' perceptions towards school environment.

Dunlop, and Macdonald (2004) conducted research on *The Teachers Health and Wellbeing Study Scotland* and the main focus of this study was to find out the male teachers due to the probability of absent with sick than female teachers, so male teachers are more concerned about their own health towards school environment.

A study carried out by Boey(2010) where they pointed out that the teacher's perception of the school comes from the student's behavior and feedback, and the teacher's perception of the school environment is closely related to their demographics.

Internationally, there are many previous studies that show teachers' perceptions towards school environment according to their demographics. Different teachers have different feelings in teaching and work, so they have different perceptions or similar perceptions on the school environment.

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