

A STUDY ON TEACHERS' PERCEPTION TOWARDS SCHOOL ENVIRONMENT AT HEBEI LS MIDDLE SCHOOL, CHINA

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Abstract: This study attempted to determine and compare the fulltime teachers' perception towards school environment according to their demographics at Hebei LS Middle School, China. A total of 70 teachers from grade 1 to 6 got involved in this study during the academic year 2023. 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 Hebei a Middle School. The study found that the total teachers' perception towards school environment was positive. There was a significant difference in teachers' perception towards the school environment among teachers in different teaching grades at Hebei LS Middle School. Discussion based on the results and suggestions for the sample school were provided by the end of the study.

Keywords: School Environment, Teachers' perceptions, Demographics

Introduction

Recently, researchers from different countries in the world have been 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. 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 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, a school's environment is 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, LS Middle School in Hebei province strictly follows the government's direction; the Ministry of Education of has formulated the "Basic Standards for Running Schools of Compulsory Education in Hebei 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 Hebei LS Middle School.
- 2) To identify the teachers' perception of school environment at Hebei LS Middle 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 Hebei LS Middle School.

Literature Review

The Concept of School Environment

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 relations, 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 for effects research. The social ecological theory needs long-term background and research from public health and psychology.

Grounded theory is a data collection and analysis of data of a process, it is based on 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, the researchers have rich concepts, 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 jobs (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 students' 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.

Related Research on Health Promoting School Model

Schools playing a role in health promotion is not a new concept. In the early 1950s, the world health organization (WHO) established a method for young people to improve their health. First, is to put the health education into the school in an all-round way. They discuss file (WHO, 1993) health promoting broad concepts and measures are put forward. In addition, a report by the Canadian (Lalonde, 1974) proposed a healthy pattern, health care-oriented society. Later, the world health organization (WHO) integrated the conference in the 1980 s thought, clarified the nature of the health, healthy control and the process of improving health (World Health Organization [WHO], 2010). Until now, many professionals recognized the concept of health education, the interactions with other health promoting ingredients (Downi et al., 1990; Young & Whitehead, 1993).

Towards the development of health promoting schools, in the whole world, the school is responsible for providing a healthy environment for students and teachers at the school. Of course, provided by the health information directly affects their health behavior. Different countries follow different goal setting health promotion, but in certain regions HPS need to meet the demand of community (Deschesnes et al., 2003).

The school has the nature of educational environment, health and education opportunities for students. Of course, also includes the teacher's health. School physical environment is important, more need to strengthen the education of social relations, thus forming the health promotion of psychological society. Through the development of social relations and the sense of belonging and improve the relationship between the teachers. In order to promote health, a school must have some functions are

following:

First, schools need to accept the teacher health and health promotion model. Second, schools need to recognize the health promotion is beneficial to the health of the teachers. Third, schools need to develop policies, methods, strategies and methods based on health promotion. Finally, schools need to evaluate the process of health promotion. 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:** refer to health promotion policies, health education programs are developed that can bring biological, ecological and social perspectives on a healthy environment.
- **Physical environment:** refer to the student's activity space in the school and it is include the indoor and outdoor area. At indoor area, teachers have the autonomy to set up the classroom physical environment.
- **Social environment:** refers to the current physical environment, culture, social relations and groups' communication.
- **School-community relation:** refer to the school settings to strengthen the teachers and students of communication and mutual support. At the same time, the school is expected to develop community relations through the existing human and community resources for health promotion.
- **Personal skill building:** refer to schools and communities to provide information and education to develop skills in personal health and to improve life skills in the living environment.
- **Access to health services:** refer to schools using skills to promote healthy development projects require the participation of health services.

However, the HPS approach is limited to the school staff, parents, and other social networks within the community.

Methodology

This study aimed to determine and compare the teachers' perception towards school environment according to their demographics at Hebei LS Middle School, China in the academic year of 2023-2024. The population of this survey was all the 70 full- time teachers from teaching Grade 1 to Grade 6 during academic year from 2023 to 2024, in Hebei LS Middle School, Hebei province, China.

This research was designed as a quantitative and comparative study. The questionnaire had a total of 40 questions, concerning the 6 important indicators of the school environment. In 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 .89 in the current study. Kate's (2005) English version questionnaire was translated into Chinese simplified language by a legal translation center in Bangkok.

Results

Demographic Analysis of the Respondents

This study analyzed all 70 questionnaires collected through the data collection. among 70 teachers, 74.4% of them were female; 25.6% were male.

It found that 18.4% teachers were teaching 2 or more grades; 16.8% teachers were teaching Grade 4; 14.4% of them were teaching Grade 2; 12.8% teachers were teaching Grade 1; 13.6% teachers were teaching Grade 6; 12.0% teachers were teaching Grade 3; 12.0% of them were teaching Grade 5.

Among 70 teachers, 28.0% had 6 to 10 years teaching experience; 27.2% had 5 years and below teaching experiences; 24.8% had 21 to 30 years teaching experience; 20.0% had 11 to 20 years teaching experiences. Among all teachers, 20% of teachers got master's degrees; 63.2% got bachelor's degree; 16.8% of them got teaching diploma.

Descriptive statistical analysis

According to the analysis results in Table 1, it 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 Hebei LS Middle School.

Table 1: Level of Teachers' perceptions towards School Environment at Hebei LS Middle School

Teachers' perception	Mean	SD	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	3.65	.78	Positive

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.

Difference Analysis

Table 2 below shows 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 2: Differences in teachers' perceptions towards school environment with their gender

Gender	Mean	SD	T	P
Male	3.55	.704	-.809	.251
Female	3.68	.811		

Table 3 below shows 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 3: Differences in teachers' perceptions towards school environment with their educational level

Source of Variance	Sum of Squares	Mean Square	F	P
Between Groups	3.857	1.332	1.410	.161
Within Groups	67.732	.612		
Total	70.112			

Table 4 below shows 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 4: Differences in teachers' perceptions towards school environment with their age

Source of Variance	Sum of Squares	Mean Square	F	P
Between Groups	3.957	1.319	2.206	.091
Within Groups	71.737	.598		
Total	75.694			

Table 5 below shows the comparison of teachers' perceptions towards school environment according to their teaching experiences in Hebei LS Middle School in the One-way ANOVA data analysis result, the significant value is .015, which was smaller than .05 at .05 level of significance.

Table 5: Differences in teachers' perceptions towards school environment with teaching experiences

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

The Post Hoc tests data analysis result presented in Table 6 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 6: Post Hoc tests of teachers’ perceptions towards school environment with teaching experiences

(I) Teaching Experiences	(J) Teaching Experiences	Mean Difference (I-J)	P
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 7 below shows the comparison of teachers’ perceptions towards school environment according to their teaching grade in Hebei LS Middle 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 the research objective of this study.

Table 7: Differences of teachers’ perceptions towards school environment with their teaching grade

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

The researcher chose to use Scheffe in Post Hoc tests. The Post Hoc tests data analysis result shows in Table 8 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 grades were existing at Hebei LS Middle School.

Discussion

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.

Table 8: Post Hoc tests of teachers' perceptions towards school environment with their teaching grade

(I) Teaching Grade	(J) Teaching Grade	Mean Difference (I-J)	P
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

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.

The total mean score of teachers' perception towards school environment at Hebei LS Middle School, was 3.650 in the range of 3.51-4.50 levels of teachers' perceptions level was "positive" at Hebei LS Middle School in Yunnan province, China. This indicated that the teachers' perceptions towards the 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.

Another 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.

Moreover, 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) had also 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

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 the 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.

Conclusions

Conclusion 1: 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 Hebei LS Middle School.

Conclusion 2: Under different demographic backgrounds, there were the differences of the teachers' perception towards school environment according to their gender, age, teaching grade, teaching experiences and educational background at Hebei LS Middle School.

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