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A Comparative Study of Chinese Teachers' Expectations of Students' Development Between Selected Public and International Kindergartens

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Abstract

Purpose: This study was aimed at comparing Kindergarten 3 teachers' expectations of students' development between selected public and international kindergartens in Nantong City, Jiangsu Province, China. Research design, data and methodology: Five public kindergartens and five international kindergartens were conveniently chosen for this study, and a total of 198 teachers (113 teachers from public and 85 teachers from international kindergartens) participated in it. Data were collected using the Teachers' Expectations of Students' Development Questionnaire (TESDQ), whose design was based on a questionnaire originally developed by Tremblay et al. in 2008. This research followed a comparative research design, and statistical analysis was performed using independent samples t-tests and a multivariate analysis of variance (MANOVA). Results: Significant differences were found between the Kindergarten 3 teachers from the selected public kindergartens and those from the selected international kindergartens, favoring the latter group that was found to have significantly higher levels of teachers' expectations of overall students' literacy and numeracy development. Conclusions: The results obtained by this study indicate that being working in a particular type of kindergarten in Nantong City, Jiangsu Province, China, appears to have a statistical effect on the Kindergarten 3 teachers' expectations of students' development.

Keywords: Kindergarten Education; Teachers' Expectations, Students' Development, Comparative Study, Chinese Teachers JEL Classification Code: C12, I20, I21, L33, N35

1. Introduction

In the Chinese education system, the purpose of pre-school education is the acquisition of a body of knowledge and skills by the students, learning with their own characters and being led by their teachers, who must consider students' development in general (Wang, 2011; Zhang, 2011). Particularly in kindergarten level, teachers should take good care of their students in daily life and must be knowledgeable enough about what constitute indicators of students' development at a particular age, in order to make sure they adapt to the absence of their parents.

In China, children in Kindergarten 3 (K3) are basically 5 and 6 years old, which is the time for children to consolidate their development of particular sociocognitive, motor, and literacy and numeracy skills (Bigras et al., 2013; Rubie-Davies, 2010; Tremblay et al., 2008). For example, during their time enrolled in K3, Chinese children will consolidate their achievement of sociocognitive developmental skills (e.g., the ability to distinguish between acceptable and inacceptable behaviors, or to count to 5 on their own); of motor developmental skills (e.g., the ability to catch a tennis ball in one hand, or to make a bow with their shoelaces); and of literacy and numeracy developmental skills (e.g., the ability to write their address correctly, or to recite entire Chinese characters; Bigras et al., 2013).

Teachers and responsible caregivers might feel more self-efficacious when they are more familiar with children's development stage in school (e.g., Rubie-Davies, 2010; Tremblay et al., 2008). A large number of studies (e.g., Piaget, 1973; Rubie-Davies, 2010; Woolfolk & Hoy, 1990) have found that teachers with high self-efficacy are more likely to contribute to help children according to their own development stage in an appropriate way.

According to Vygotsky (1978), teachers should know what knowledge and skills students have developed by certain ages, and then use that knowledge to lead students to learn and take care of themselves through teaching them contents and suitable activities for their development stage. In Jiangsu Province, China, kindergarten teachers working in public kindergartens must take and pass an examination in order to take the job position, and most of them have taught in kindergarten level for several years, so they have a rich teaching experience. On the other hand, kindergarten



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teachers working in international kindergartens in Jiangsu Province, China, are not all majored in preschool education, although most of them have teacher certifications and seemingly provide more different activities for their students during the learning process. Based on the similarities and differences observed by the researchers between public and international kindergarten teachers in Jiangsu Province, China, they decided to conveniently choose 10 kindergartens for this study, five public and five international kindergartens, targeting all the teachers who were working full-time at K3 level at these institutions. Then, by collecting information on K3 teachers' expectations of students' development, the researchers can know whether the teachers overestimate, underestimate, or accurately estimate the children's actual abilities at school, in terms of sociocognitive, motor, and literacy and numeracy development (Bigras et al., 2013; Tremblay et al., 2008).

2. Research Objectives

The researchers designed and conducted a comparative study to address the following objectives on the selected kindergartens located in Nantong City, Jiangsu Province, China.

1. To determine the level of Chinese K3 teachers' expectations of students' development in selected public kindergartens.

1.1. To determine the level of Chinese K3 teachers' expectations of students' sociocognitive development in selected public kindergartens.

1.2. To determine the level of Chinese K3 teachers' expectations of students' motor development in selected public kindergartens.

1.3. To determine the level of Chinese K3 teachers' expectations of students' literacy and numeracy development in selected public kindergartens.

2. To determine the level of Chinese K3 teachers' expectations of students' development in selected international kindergartens.

2.1. To determine the level of Chinese K3 teachers' expectations of students' sociocognitive development in selected international kindergartens.

2.2. To determine the level of Chinese K3 teachers' expectations of students' motor development in selected international kindergartens.

2.3. To determine the level of Chinese K3 teachers' expectations of students' literacy and numeracy development in selected international kindergartens.

3. To determine whether there is a significant difference in Chinese K3 teachers' expectations of students' development between selected public and international kindergartens.

4. To determine whether there is a significant difference in Chinese K3 teachers' expectations of students' development (in terms of sociocognitive development, motor development, and literacy and numeracy development) between selected public and international kindergartens.

3. Theoretical Framework

There were two main theories guiding and supporting this research: the cognitive learning theory and the constructivist learning theory.

3.1. Cognitive Learning Theory

Piaget's (1973) cognitive learning theory, also known as cognitive development theory, is a theoretical model that assumes that the foundation of learning for children is the construction and acquisition of knowledge through experiences by relying on cognitive structure, which is given by children's age and development stage. Piaget (1973) considered that children can do things according to their age and cognitive structure. These cognitive structures will change and be enlarged with age, through the processes of assimilation, accommodation and correction.

The present study was about K3 teachers' expectations of their students' development, who were children of 5 and 6 years of age. Therefore, this study dealt with the second stage of Piaget's (1973) theory, preoperational thought (from about 2 to 6-7 years of age), in which children's symbolic and semiotic functions begin to appear and rapidly develop, through activities that equip children with signs and symbols in the forms of language and mental imagery, such as symbolic play and imitation.

3.2. Constructivist Learning Theory

The constructivist learning theory by Vygotsky (1978), also known as theory of social constructivism, is a theoretical model that assumes that the meaning of reality is formed and reformed through social processes. In this



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theory, Vygotsky focused more on learning on social contexts, emphasizing the importance of such contexts for learners' cognitive development to learn more about culture and concepts. According to this theory, the idea of "zone of proximal development" (ZPD) is fundamental. ZPD refers to the point in an individual's development stage in which he or she requires the assistance from a teacher or peer in order to reach the next level of learning, knowledge and skills.

According to Vygotsky (1978), children around 7 years old (i.e., like the K3 students whose development the participants of this study expressed their expectations) are able to internalize their culture's language, rely on inner speech, increasingly think in words, use words to solve problems, and go to teachers and parents for help when they meet something they cannot deal with it by themselves.

4. Conceptual Framework

The conceptual framework of this study is depicted in Figure 1. The independent variable of this study was the type of kindergarten (which had two attributes: public kindergartens and international kindergartens), while the dependent variable was given by the Kindergarten 3 teachers' expectations of students' development.



Figure 1: Conceptual Framework of This Study

5. Research Hypotheses

The researchers designed and conducted a comparative study to address the following hypotheses.

1. There is a significant difference in Chinese K3 teachers' expectations of students' development between selected public and international kindergartens, at a significance level of .05.

2. There is a significant difference in Chinese K3 teachers' expectations of students' development (in terms of sociocognitive development, motor development, and literacy and numeracy development) between selected public and international kindergartens, at a significance level of .05.

6. Literature Review

In this section, some previous studies related to the research variables addressed in this study are reviewed.

Gill and Reynolds carried out a study in 1999 to assess the influence of parents' and teachers' expectations of their children's development and academic outcomes on the children's perceptions of those expectations, as well as of their academic outcomes in Grade 6. The participants were a total of 712 Grade 6 children from low-income African American communities in Chicago, United States. The results revealed that when the children perceive that their parents and teachers hold such high expectations on their development and academic outcomes, children tend to set and meet high academic standards for their own education and make efforts toward meeting those high standards. In particular, a direct, strong and significant relation between teachers' and parents' expectations and students' reading and mathematics development and achievement was found.

Benner and Mistry carried out a study in 2007 to examine the independent effects of adult (i.e., teachers and parents) expectations on youth's development outcomes to explain the relationship between adult expectations and students' self-perceptions of development. An ethnically diverse sample of 522 American low-income, urban youth, with ages ranging from 9 to 16 years old, participated in this study. From the data analysis, it was found that adults' expectations had a significant influence on youth's beliefs in their academic competence and outcomes. In other words, teachers and parents having high expectations on youth's development outcomes had a significantly positive effect on youth development and directly influenced students' selfperceptions of achievement and competence, whereas parents and teachers having low expectations on youth's development outcomes had a negative effect.

Crano and Mellon carried out a study in 1978 on the causal influence between teachers' expectations and



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children's academic development through a cross-lagged panel analysis. The participants were 4300 British children aged 7, all beginning elementary school, and the study lasted 4 years. The results indicated that teachers' expectations of children's social development seemed to exert a greater effect on later academic performance than those teachers' expectations related specifically to the children's academic potential. Correlational analyses performed for this research also indicated that teachers' expectations caused children's performance to an appreciable extent.

A study carried out by Rubie-Davies in New Zealand, in 2010, compared how teachers with very high or very low expectations for all their students would judge their students' end-of-year development. The participants of this study were six high expecting teachers and three low expecting teachers. All the teachers participating in this study were asked to rate their students on 15 student characteristics, including students' cognitive engagement, classroom behavior, relationships with others, and participation in class. It was found that high expecting teachers rated their students significantly higher than low expecting teachers did, in relation to every rating on the scale of 15 student characteristics. Then, high expecting teachers had significantly higher expectations of their students' development than the low expecting teachers. Also, through class observations, it was confirmed that high expecting teachers were better at communicating with their students, discussing knowledge contents, dealing with problems together, providing feedback in time, and managing behaviors positively than those teachers with low expectations of their students' development.

A study on parental expectations of their children's development was carried out by Bigras et al. in 2013, aiming toward validating a questionnaire designed to measure parental expectations of their children's development, originally designed by Tremblay et al. (2008). The participants of this study were 363 parents living in Montreal and Montérégie, Canada, including 204 mothers and 159 fathers of children aged 4 and 5 years old. The findings of this study indicated that, compared to parents with low expectations of their children's development, those parents with high expectations could give their children a little bit harder tasks to complete, which improved their children's abilities and development. Also, when parents had higher expectations of their children socio-cognitive, motor, or literacy and numeracy development, it was found that their children had higher scores on the Wechsler Preschool and Primary Scale of Intelligence

7. Methodology/Procedure

In this section, details on the study's population, sample and research instruments are provided.

7.1. Population and Sample

There are 30 public and 10 international kindergartens offering Kindergarten 3 in Nantong City, Jiangsu Province, China. From them, and forced by proximity due to COVID-19-related measures, the five public and five international kindergartens with the largest number of K3 teachers were conveniently chosen by the researchers, trying to keep the sample as representative as possible. From this convenience sample of 10 institutions, all the teachers working in K3 were asked to fill in the study questionnaire. The teachers' population and sample in the targeted schools was distributed as follows: 113 teachers from the target public kindergartens; and 85 teachers from the target international kindergartens.

7.2. Research Instrument

This study was conducted using the Teachers' Expectations of Students' Development Questionnaire (TESDQ), based on an instrument originally developed by Tremblay et al. in 2008. The original item wording was revised and adapted when needed for cultural suitability, in order to ensure that the items were appropriate to the Chinese context, and then were translated into Mandarin Chinese by the first author. Then, the Chinese version of the TESDQ was revised, validated and approved by three Chinese professionals on general and pre-school education, in order to ensure the translation validity.

The TESDQ (see Appendix 1) has 39 items distributed in three subscales: sociocognitive development (Items 1-18), motor development (Items 19-31), and literacy and numeracy development (Items 32-39). The target teachers were asked to rate their expectations of the extent to which Kindergarten 3 students were able or unable to engage in certain activities, using a 6-point Likert-type scale (1 = totally unable, 2 = mostly unable, 3 = somewhat unable, 4 = somewhat able, 5 = mostly able, 6 = totally able).

The Cronbach's alpha reliability test was carried out for the overall and subscales of the TESDQ, for internal consistency reliability analysis. As a result, good internal consistency reliability was found for all the three subscales, with Cronbach's alphas ranging from .83 to .89, and a Cronbach's alpha of .92 for the total score (see Table 1).



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Table 1: Reliability Coefficients of the TESDQ, Reported byBigras et al. (2013) and the Current Study

	Cronbach's alpha values			
Subscale	Bigras et al. (2013)	Current study		
Sociocognitive development	.90	.89		
Motor development	.82	.83		
Literacy and numeracy development	.83	.85		
Overall	Not reported	.92		

Table 2: Mean Scores, Standard Deviations and Interpretations of K3 Teachers' Expectations of Students' Development in the

 Selected Public and International Kindergartens Chosen for This Study

	Teachers (by type of kindergarten)					
	Public		International			
Variable	М	SD	Interpretation	М	SD	Interpretation
Teachers' expectations of students' development	4.38	1.11	Somewhat high	4.85	0.95	High
Teachers' expectations of students' sociocognitive development	4.76	1.02	High	5.10	0.85	High
Teachers' expectations of students' motor development	4.07	1.19	Somewhat high	4.57	1.05	High
Teachers' expectations of students' literacy and numeracy development	4.05	1.14	Somewhat high	4.73	1.01	High

8. Research Findings

From the analysis of the collected data, the following findings were obtained.

8.1. Findings From Research Objective 1

Regarding to this research objective, the following findings were obtained, considering an interpretation scale of 1-6, with higher scores being considered an overestimation of child's abilities (see Table 2).

• The level of K3 teachers' expectations of students' development in selected public kindergartens in Nantong City, Jiangsu Province, China, was somewhat high.

• The level of K3 teachers' expectations of students' sociocognitive development in selected public kindergartens in Nantong City, Jiangsu Province, China, was high.

• The level of K3 teachers' expectations of students' motor development in selected public

kindergartens in Nantong City, Jiangsu Province, China, was somewhat high.

• The level of K3 teachers' expectations of students' literacy and numeracy development in selected public kindergartens in Nantong City, Jiangsu Province, China, was somewhat high.

8.2. Findings From Research Objective 2

Regarding to this research objective, the following findings were obtained, considering an interpretation scale of 1-6, with higher scores being considered an overestimation of child's abilities (see Table 2).

• The level of K3 teachers' expectations of students' development in selected international kindergartens in Nantong City, Jiangsu Province, China, was high.

• The level of K3 teachers' expectations of students' sociocognitive development in selected



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international kindergartens in Nantong City, Jiangsu Province, China, was high.

• The level of K3 teachers' expectations of students' motor development in selected international kindergartens in Nantong City, Jiangsu Province, China, was high.

• The level of K3 teachers' expectations of students' literacy and numeracy development in selected international kindergartens in Nantong City, Jiangsu Province, China, was high.

8.3. Findings From Research Objective 3

The results from the hypothesis testing revealed the following findings, which were obtained from performing an independent samples t-test on the collected data.

• It was found that K3 teachers in selected international kindergartens had significantly higher expectations of their students' development than their counterparts working in selected public kindergartens in Nantong City, Jiangsu Province, China, t(196) = -6.76, p < .001.

8.4. Findings From Research Objective 4

The results from the hypothesis testing revealed the following findings, which were obtained from performing a one-way 2 (K3 teachers in public kindergartens and K3 teachers in international kindergartens) \times 3 (teachers' expectations of students' sociocognitive development, teachers' expectations of students' motor development, and teachers' expectations of students' literacy and numeracy development) multivariate analysis of variance (MANOVA) on the collected data.

• It was found that the expectations of students' sociocognitive development of K3 teachers in selected international kindergartens were significantly higher than the ones held by their counterparts working in selected public kindergartens, t(196) = -4.39, p < .001.

• It was found that the expectations of students' motor development of K3 teachers in selected international kindergartens were significantly higher than the ones held by their counterparts working in selected public kindergartens, t(196) = -5.62, p < .001.

• It was found that the expectations of students' literacy and numeracy development of K3 teachers in selected international kindergartens were significantly higher than the ones held by their counterparts working in selected public kindergartens, t(196) = -6.47, p < .001.

9. Discussion

In this section, the findings obtained from this study are discussed, placing them in context with previous studies. The discussion is organized by variables.

9.1. K3 Teachers' Expectations of Students' Development in Selected Public and International Kindergartens

In this study, it was found that K3 teachers participating in this study, from both kind of kindergarten, had expectations of students' development (both overall and in terms of students' sociocognitive development, students' motor development, and students' literacy and numeracy development) that were either somewhat high or high. According to a previous study by Benner and Mistry (2007), teachers' and parents' expectations on youth's development outcomes were also reported to be high, similar to the findings of the current study. In addition, a study by Crano and Mellon (1978) in the Great Britain also reported results showing that teachers' expectations of children's development significantly exceeded children's performance, which was similar to the findings of the current study. Other researchers (e.g., Benner & Mistry, 2007; Gill & Reynolds, 1999; Rubie-Davies, 2010), reported that in the educational practice, teachers have different expectations for children, and those will influence children in corresponding attitudes and ways, intentionally or unintentionally, so as to produce different educational effects on children, which was in line with the results obtained by this study. The results of this study are also aligned with the findings of Weinstein et al. (2004), who conducted a study on teachers' behaviors and found that teachers often provided negative emotional information to poor students, and students were usually aware of this communication, but teachers generally did not notice that they were doing so. Thus, if K3 teachers could give positive information to their students and explicitly show that they believe in them, students would behave and develop better as their teachers' expectations.

According to the data, it can be seen that K3 teachers had high expectations of their students' development in the selected public and international kindergartens. In general, most of K3 teachers seemed have more expectations on students' learning and accumulation of knowledge (Wang, 2011). These results are in line with one of the previous studies by Rosenthal and Jacobson



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(1998), who also analyzed that the treatment of deep expectations and assumptions provided to be the experimental group resulted in a significant improvement in their intelligence compared to the comparison group. Similarly, the result in this study aligns with Zhang (2011), who indicated that international teachers' professional development is the key factor affecting children's development and must master the law of children development and children's age characteristics to help them grow up. As a whole, in different types of kindergartens, K3 teachers' expectations of their students' development were significantly different.

9.2. K3 Teachers' Expectations of Students' Sociocognitive Development in Selected Public and International Kindergartens

In this study, the overall of K3 teachers had high expectations in selected public and international kindergartens of their students' sociocognitive development in Nantong City, Jiangsu Province, China. The result showed that K3 teachers' expectations of students' sociocognitive development in selected public and international kindergartens were high. The researchers think that the reasons why K3 teachers had high expectations of their students' sociocognitive development in selected public and international kindergartens might because of high expectations teachers communicated better with their students with discussing knowledge contents, dealing with problems together, having feedbacks in time and managing behaviors positively (Rubie-Davies, 2007).

9.3. K3 Teachers' Expectations of Students' Motor Development in Selected Public and International Kindergartens

In this study, the overall of K3 teachers had higher expectations in selected international kindergartens of students' motor development than those in selected public kindergartens. A study carried out by Bigras et al. (2013) aiming toward validating a questionnaire to measure parental expectations of their children's development, stated that parents with high expectations could give their children a little bit harder tasks to complete with improve children's abilities and development. This result aligns with the one obtained by the current study.

9.4. K3 Teachers' Expectations of Students' Literacy and Numeracy Development in Selected Public and International Kindergartens

In this study, K3 teachers in selected international kindergartens had higher expectations of their students' literacy and numeracy development than the ones in selected public kindergartens in Nantong City, Jiangsu Province, China. A study by Hu and Song (2013) conducted on 1174 K3 teachers from Eastern, Central and Western provinces in China, obtained similar results to this study. Hu and Song (2013) found that teachers from Central provinces in China had higher expectations of students' literacy and numeracy development than those in Eastern and Western provinces. A study by Gill and Reynolds (1999) stated that parents' and educational expectations teachers' for students' development only partly affected to perceptions of six-grade reading and mathematics outcomes. This result is in line with the one obtained by this study.

10. Recommendations

Based on the study findings, the following recommendations are provided for students, teachers, school administrators and future researchers.

10.1. Recommendations for K3 Students

K3 students in selected public and international kindergartens in Nantong City, Jiangsu Province, China, were burdened with many expectations from their teachers. The findings of the study would lead the students to understand and recognize teachers' expectations of them. K3 students should internalize the teachers' expectations for them, in harmony with the teacher, and hence accept the positive impact of the teachers' expectations, so as they play a positive role in their holistic development.

10.2. Recommendations for K3 Teachers

K3 teachers should have the right expectations of their students' development, and avoid to overestimate children's abilities. If K3 teachers' expectations are too high, exceeding the potential belief of students' development and their abilities to bear would cause antipathy of students. At the same time, if students have such high expectations and make the efforts that hardly to reach the goal, they tend to be prone to frustration, which is not conductive to students' physical and mental development. Therefore, K3 teachers should be patient to the development of students, to give students positive



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expectations, not to exaggerate the role of teachers' expectations, but to combine with other educational means, to obtain the best educational results.

10.3. Recommendations for K3 Students' Parents

According to the research instruments used by the researchers in this study and the results of K3 teachers' expectations of students' development, the researchers believe that students should have help and guidance not only from teachers, but also from active cooperation of their own parents. Parents' words and behaviors sometimes virtually affect the development of students in many aspects. K3 students' parents should know how their own child develop currently and work with teachers to promote their own child's development to achieve a good home and school cooperation.

10.4. Recommendations for School Administrators

School administrators should convey more interesting and fun activities, and effective various teaching strategies that contribute with their students' development (overall and in terms of students' sociocognitive development, students' motor development, and students' literacy and numeracy development). The school administrators can provide constantly professional development programs to upgrade the instructional and teaching methods and to keep abreast of techniques, ideas, or equipment to enrich teachers' teaching methods.

10.5. Recommendations for Future Researchers

Future researchers could try to collect data from more kindergartens and a larger sample size of kindergarten teachers, in order to conduct similar studies in a widereaching scale that may have more generalizable and representative results. Future researchers can consider the other factors and items of students' development (e.g., regional difference, gender, personalities, beautyappreciation and parental encouragement) that could influence the expectations of students' development held by K3 teachers, so as to get more data of interest and uncover more valuable information on this topic of teachers' expectations of students' development.

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