



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT



[www.hrmars.com](http://www.hrmars.com)

ISSN: 2226-6348

## Kindergarten Teacher's Pedagogical Knowledge and Its Relationship with Teaching Experience

Norzalikhah Buyong, Suziyani Mohamed, Noratiqah Mohd Satari, Kamariah Abu Bakar, Faridah Yunus

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v9-i2/7832>

DOI:10.6007/IJARPED/v9-i2/7832

*Received: 13 April 2020, Revised: 16 May 2020, Accepted: 19 June 2020*

Published Online: 29 July 2020

**In-Text Citation:** (Buyong, et al., 2020)

**To Cite this Article:** Buyong, N., Mohamed, S., Satari, N. M., Abu Bakar, K., & Yunus, F. (2020). Kindergarten Teacher's Pedagogical Knowledge and Its Relationship with Teaching Experience. *International Journal of Academic Research in Progressive Education & Development*. 9(2), 805-814.

**Copyright:** © 2020 The Author(s)

Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen

at: <http://creativecommons.org/licenses/by/4.0/legalcode>

**Vol. 9(2) 2020, Pg. 805 - 814**

<http://hrmars.com/index.php/pages/detail/IJARPED>

**JOURNAL HOMEPAGE**

Full Terms & Conditions of access and use can be found at  
<http://hrmars.com/index.php/pages/detail/publication-ethics>



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT



[www.hrmars.com](http://www.hrmars.com)

ISSN: 2226-6348

## Kindergarten Teacher's Pedagogical Knowledge and Its Relationship with Teaching Experience

Norzalikhah Buyong  
Ministry of Education, Malaysia

Suziyani Mohamed  
Faculty of Education, Universiti Kebangsaan Malaysia, Malaysia

Noratiqah Mohd Satari  
Faculty of Human Development, Universiti Pendidikan Sultan Idris Malaysia

Kamariah Abu Bakar, Faridah Yunus  
Faculty of Education, Universiti Kebangsaan Malaysia

### Abstract

Pedagogical knowledge is closely linked to effective teaching and learning process. Teachers with good pedagogical knowledge can make a connection between theories and practice in the classroom. This research aimed to examine Malaysian kindergarten teachers' pedagogical knowledge and its relationship with teaching experience. The survey research design and quantitative approach were used in this research. A simple random sampling technique was employed in the sample selection process, and a total of 300 teachers from a private kindergarten participated in this research. The data were collected using an adapted questionnaire from previous research. Descriptive and inferential statistics were performed to analyze the data. The data analysis shows that kindergarten teachers have an excellent pedagogical knowledge with  $M = 4.32$  and  $SD = 0.54$ . Pearson correlation test shows that there is a weak, but positive relationship between teachers' teaching experience and pedagogical knowledge. This finding suggests that longer teaching experience contributes to higher pedagogical knowledge. The result of this study shows that private kindergarten teachers have good pedagogical knowledge, and they have received excellent in-house training courses throughout the service period.

**Keywords:** Pedagogical, Pedagogical Knowledge, Teaching Experience, Kindergarten Teacher, Preschool Teacher

### Introduction

Competency is an essential element that teachers need to have in striving toward excellence. According to Beare (2001), there are five components of competencies that all teachers must

know and master. These five components are curriculum, pedagogy, assessment, contribution towards the school, and professional contribution. Therefore, to be a competent and professional educator, teachers must first master pedagogical knowledge ( Bakar, Maat & Rosli, 2019; Dwyer & Schachter, 2019; Naziri, Rasul & Affandi, 2019; Siraj & Ibrahim, 2012). The pedagogical knowledge comprises six components, namely classroom management, time management, classroom control, teaching strategies, and reflection on the teaching and learning process (Abdul Rahim, 2005; Sulaiman, 2003; Yunus, Kandasamy & Hashim, 2018).

Pedagogical competence refers to teachers' ability to make a connection between theories and practice in the teaching and learning process (Figueiredo, Gomes & Rodrigues, 2018; Nganga, 2020; Nopriyeni, Prasetyo & Djuki, 2019). Teachers with good pedagogical knowledge can carry out an effective teaching and learning session in the classroom (Clements & Sarama, 2008; Oakley, 2020; Stipek, 2014). They know how to integrate the pedagogy, content, and implementation strategies that will help children to gain a better understanding (Koehler, Mishra, Akcaoglu, & Rosenberg, 2013). They can also make the learning session fun and exciting. This approach has been proven to enhance children's engagement, attention, focus, and interest (Dwyer & Schachter, 2019; Nganga, 2020; Jantan, Fauzi, & Resad, 2016). Besides, the fun and exciting session with playful activities can help nurture and foster the interest of children towards learning (Oakley, 2020). This theory is in line with the dimension of the pedagogy of early childhood, which states that a play-based approach is a highly recommended approach in teaching young children (Figueiredo, Gomes & Rodrigues, 2018).

To be a good teacher, teachers need to be equipped with professional knowledge, the right pedagogical beliefs (Anders & Rossbach, 2015; Figueiredo, Gomes & Rodrigues, 2018) as well as positive emotions and attitudes towards learning (Bruns, Eichen & Gasteiger, 2017; Gellert, 1999). A good teacher knows how to plan and use the opportunities in a naturalistic environment to achieve teaching purposes (Anders & Rossbach, 2015; Peisner-Feinberg et al., 2001). A teacher guide is needed to initiate and maintain an effective learning session in order to achieve educational goals (Anders & Rossbach, 2015; Figueiredo, Gomes & Rodrigues, 2018). However, the literature suggests that the implementation of quality teaching and learning process is a challenging task for kindergarten teachers (Bjorklund, 2015; Lee, 2010). Finding of past studies show that there is a significant correlation between teaching experience, and the process of teaching and learning (Fitria, 2015; Nubeiti, 2011; Yassin, 2016). According to some past studies, experienced teachers show a better control on the content and professionalism compared to new teachers (Bruns, Eichen & Gasteiger, 2017; Fitria, 2015; Nubeiti, 2011). However, other studies reported a different finding that teachers' teaching experience does not influence the planning of a lesson in the classroom (Ismail & Hassan, 2017; Zainal, Mustapha & Habib, 2009). Previous studies on teaching experience produce many different results. Hence, the purpose of this study was to investigate kindergarten teachers' pedagogical knowledge and its relationship with teaching experience in the Malaysian context.

### **The Malaysia Preschool System**

In Malaysia, early childhood education services are provided and administered by two ministries, which are the Ministry of Education and the Ministry of Women, Family and Community Development. The Ministry of Education is responsible for developing the curriculum for early

childhood education and provides a free preschool program for children age 5 to 6 years old at the national primary schools. On the other hand, the Ministry of Women, Family and Community is responsible for monitoring private kindergartens all over the country. Private kindergartens in Malaysia are compulsory to register and comply with all the requirements set up by the Ministry of Women, Family and Community Development. Although both ministries have their own regulations on operation matters, all kindergartens in Malaysia are compulsory to comply with the curriculum set up by the Ministry of Education, namely National Preschool Standards-Based Curriculum. The National Preschool Standards-Based Curriculum encompasses six strands, which are (a) communication, (b) spirituality, attitudes, and values, (c) humanity, (d) physical development and aesthetics, (e) science and technology, and (f) personal competence (Curriculum Development Division, 2017).

Apart from different monitoring ministries, both types of kindergarten require different qualifications in hiring teachers. Teachers who serve in the preschools under the Ministry of Education must have a Bachelor of Education and specialize in Early Childhood Education from a recognized university. In contrast, there is no minimum qualification requirement for teachers to work at private kindergartens. It depends on the owner of the kindergarten either to hire or not to hire a teacher who has an education background. This scenario causes private kindergarten teachers to be of various levels of education and background. Some of the private kindergarten teachers make their kindergarten teaching career as a stepping stone before they get a job that suits to their degree and qualifications. The varied background and levels of education put these teachers' pedagogical knowledge into question.

### **Methodology**

This study used a quantitative approach within the framework of a survey research design.

### **Participants**

The research was conducted at a private kindergarten located in Seremban, Negeri Sembilan. Seremban was selected as the research location because it is located in a suburban area. The statistics from the State Education Department shows 1174 teachers are employed in private kindergartens in Seremban. The simple random sampling technique was used in the sample selection process based on Krejcie and Morgan's (1970) table. According to the table, the minimum number of samples is 291. Table 1 shows the information regarding the respondents' teaching experience. Based on Table 1, 74.3 % of the respondents have one to five years experience, 19 % of the respondents have six to ten years experience, 2.7 % of the respondent have 11 to 25 years experience, 1.3 % of the respondents have 16 to 20 years experience, and 2.7 % of the respondents have more than 20 years experience in teaching preschoolers.

**Table 1. Teaching Experience**

<b>Demography</b>	<b>n</b>	<b>%</b>
Teaching experience		
1 to 5 years	223	74.3
6 to10 years	57	19.0
11 to 15 years	8	2.7
16 to 20 years	4	1.3
More than 20 years	8	2.7

**Instrument**

The data were collected using an adapted questionnaire from the previous research by Hamid (2018). The questionnaire comprises two sections; Section A (Demography Information) and Section B (Teachers’ Pedagogical Knowledge). Section A has only one item on teaching experience and Section B consists of 26 items from five sub-scales, which are classroom management, time management, classroom control, interaction and communication, teaching strategies, and reflection of teaching and learning. The responses from the respondents were recorded using a 5-point Likert scale ranges from 1 to 5 (strongly disagree to strongly agree). The detailed information about the questionnaire is provided in Table 2.

Two experts in the early childhood education were selected to determine the content validity of the questionnaire. An expert in language was assigned to review the phonology, semantic, and pragmatic aspects for each item in the questionnaire. Comments from the experts were taken into consideration for improvement purposes of the questionnaire. Three preschool teachers were selected to examine the face validity of the instrument. They provided feedback on the clarity and understanding of each item. Based on the feedback of the validators, the intended message in each item on the questionnaire is neither confusing nor problematic to be understood. These feedbacks show that the items in the questionnaire are of clarity and comprehensible. A pilot study was conducted to measure the construct validity and internal consistency of the instrument. A total of 30 respondents participated in the pilot study. The outcomes of the analysis indicate that the items correlation value is above 0.30 and the Cronbach Alpha value is 0.92.

**Table 2. Sub-scales and numbers of item in Section B**

<b>Section/Sub-scales</b>		<b>Numbers of item</b>
Section A: Demography	Teaching experience	1
Section B: Teachers’ Pedagogical Knowledge	Classroom management	4
	Time management	4
	Classroom control	4
	Interaction and communication	3
	Teaching strategies	5
	Reflection on teaching and learning	5
<b>Total of items</b>		<b>26</b>

### Data Collection and Analysis

A total of 300 questionnaires were distributed to the respondents. After considering the possibility that the questionnaire might not be returned, the respondents were given one week to fill up the questionnaire. After one week, the questionnaires were collected back. The return rate for the questionnaire was 100%. The data were analyzed using Statistical Package for Social Science. The mean value, standard deviation, and coefficient correlation were determined to answer the research questions. The mean value was interpreted using the Ministry of Education Interpretation (2012). The interpretation of the mean score is provided in Table 3.

**Table 3. Interpretation of the mean score**

Mean Score	Interpretation
1.0 to 1.8	Very low
1.9 to 2.6	Low
2.7 to 3.4	Moderate
3.5 to 4.2	High
4.3 to 5.0	Very high

### Results

A descriptive and inferential statistic was performed to analyze the data in order to answer the research questions. The mean and standard deviation values were determined using descriptive statistics. The Pearson correlation test was performed to identify the relationship between teachers' pedagogical knowledge and teaching experience.

### Pedagogical Knowledge

Teachers' pedagogical knowledge was measured by six sub-scales, which were teacher's interest, early mathematic concept, teaching strategies, application in daily activities, the appropriateness of teaching aids, and teacher's evaluation. A descriptive analysis was performed to determine the mean score and standard deviation value for each sub-scale. Then, the mean value was interpreted using the interpretation method in Table 3. Table 4 shows the result from the descriptive analysis for each sub-scale. Overall, teachers' pedagogical content knowledge mean score is very high (Mean = 4.32, SD = 0.54) with a mean score for each sub-scale ranges from 4.28 to 4.37 (high to very high).

**Table 4. Descriptive analysis of pedagogical knowledge**

Sub-scales	Mean	Standard Deviation	Interpretation
Classroom management	4.34	0.60	Very high
Time management	4.29	0.53	High
Classroom control	4.35	0.55	Very high
Interaction and communication	4.37	0.55	Very high
Teaching strategies	4.31	0.51	Very high
Reflection on teaching and learning	4.28	0.52	High
Overall	4.32	0.54	Very high

### Correlation between Teachers' Pedagogical Content Knowledge, Teaching Experience, and Level of Education

The relationship between teachers' pedagogical knowledge and teaching experience was investigated using the bivariate Pearson's product-moment correlation coefficient ( $r$ ). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a weak, positive correlation between the two variables,  $r = 0.184$ ,  $n = 300$ ,  $p = 0.00$  ( $p < 0.05$ ), with a high level of pedagogical knowledge associated with more years of teaching experience.

**Table 5. Correlation between teachers' pedagogical content knowledge and teaching experience**

		Teaching Experience	Level of Education
Pedagogical knowledge	Pearson Correlation ( $r$ )	0.127**	0.302**
	$p$	0.000	0.000
	$n$	300	300

\*\* significant at .05

### Discussion

The literature review reveals that an excellent pedagogical knowledge has a significant correlation with effective teaching and learning in the classroom (Zamri & Fadhil, 2014; Jamil, 2012; Lo, 2014; Sulatan, Masnan, Rohaizad & Salleh, 2016). Teachers need the knowledge to develop the skills and to design quality learning activities that provide children adequate support in their learning activities (Anders & Rossbach, 2015; Bruns, Eichen & Gasteiger, 2017; Nganga, 2020;). Pedagogical knowledge influences the teaching and learning process in the classroom (Dede & Karakus, 2014; Oakley, 2020). This research found that kindergarten teachers in the Malaysian context demonstrated good pedagogical knowledge. They scored high to very high on classroom management, time management, classroom control, interaction and communication, teaching strategies, and reflection on teaching and learning. These findings show that the respondents have a good understanding of pedagogy and have mastered the necessary components in the pedagogy, although they do not have any early childhood education background.

The analysis of the correlation between teachers' pedagogical knowledge and teaching experience shows that there is a significant correlation between these two variables. Teachers with more years of experience demonstrated a better understanding of pedagogical knowledge. This finding is similar to the findings of previous research conducted in different contexts. Some scholars reported that there is a significant relationship between teaching experience and teachers' pedagogical knowledge (Fitria, 2015; Johari, Ismail, Osman & Othman, 2009; Nubeiti, 2011).

## Conclusion

In summary, this research aimed to investigate kindergarten teachers' pedagogical knowledge. The teachers' pedagogical knowledge was measured by their understanding of classroom management, time management, classroom control, interaction and communication, teaching strategies, and reflection on teaching and learning process. The current study found that kindergarten teachers in Malaysia have excellent pedagogical knowledge, and there is a positive and significant relationship between teachers' pedagogical knowledge and their teaching experience. Hence, it can be concluded that private kindergarten teachers in Malaysia are provided with a proper in-service training throughout their service period.

This finding is in line with the theoretical framework that stated working experience contribute to a positive impact to enhance pedagogical knowledge and strengthen the pedagogical skills among the teachers. Effective in-service training provided by the employer help private kindergartens' teachers in Malaysia to be more competent as a teacher although they have no qualification in teaching. Furthermore, this finding shows that private kindergarten's teachers also gain knowledge and strengthen their teaching skills through daily activities in the classroom. It also can be concluded that teaching experience is an important factor that contributes to teachers' competency in teaching and learning.

## References

- Anders, Y., & Rossbach, H. (2015). Preschool teachers' sensitivity to mathematics in children's play: The influence of math-related school experiences, emotional attitudes, and pedagogical beliefs. *Journal of Research in Childhood Education, 29*(3), 305-322. <http://dx.doi.org/10.1080/02568543.2015.1040564>
- Bakar, N. S. S., Maat, S. M., & Rosli, R. (2019). Evaluation on Mathematics teachers: Technological pedagogical content Knowledge (TPACK) scale using Rasch model analysis. *Religacion, 4*(18), 30-36.
- Beare, H. (2001). *Creating the future school*. London: Routledge Falmer.
- Bjorklund, C. (2015). Pre-primary school teachers' approaches to mathematics education in Finland. *Journal of Early Childhood Education, 4*(2), 69-92.
- Bjorklund, C., Magnusson, M., & Palmer, H. (2018). Teachers' involvement in children's mathematizing – beyond dichotomization between play and teaching. *European Early Childhood Education Research Journal, 26*(4), 469-480. <https://doi.org/10.1080/1350293X.2018.1487162>
- Bruns, J., Eichen, L., & Gasteiger, H. (2017). Mathematics-related competence of early childhood teachers visiting a continuous professional development course: An international study. *Mathematics Teacher Education and Development, 19*(3), 76-93. <https://doi.org/10.1080/1350293X.2018.1487164>
- Clements, D. H., & Sarama, J. (2008). Experimental evaluation of the effects of a research-based preschool mathematics curriculum. *American Educational Research Journal, 45*(2), 443-494. <https://doi.org/10.3102%2F0002831207312908>
- Clements, D., Sarama, J., & DiBiase, A. (2004). *Engaging young children in mathematics: Standards for early childhood mathematics education*. Mahwah, NJ: Lawrence Erlbaum.



- Curriculum Development Division. (2017). *The National Preschool Standard-Based Curriculum and Assessment Document*. Ministry of Education, Malaysia.
- Dede, Y., & Karakus, F. (2014). The effect of teacher training programs on pre-service mathematics teachers' beliefs towards mathematics. *Educational Sciences: Theory & Practice*, 14(2), 804-809. <https://doi.org/10.12738/estp.2014.2.1787>
- Dwyer, J., & Schachter, R. E. (2019). Going beyond defining: Preschool educators' use of knowledge in their pedagogical reasoning about vocabulary instruction. *Dyslexia*, 1–27.
- Figueiredo, M. P., Gomes, H., & Rodrigues, C. (2018). Mathematical pedagogical content knowledge in early childhood education: Tales from the 'great unknown' in teacher education in Portugal. *European Early Childhood Education Research Journal*, 26(4), 535-546. <https://doi.org/10.1080/1350293X.2018.1487164>
- Fitria, F. (2015). *Impact of academic qualification and teaching experience on ips teacher competency*. Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia.
- Gellert, U. (1999). Prospective elementary teachers' comprehension of mathematics instruction. *Educational Studies in Mathematics*, 37(1), 23–43.
- Ismail, M., & Hassan, H. (2017). Teaching style among KEMAS teachers in Kelantan. *National Journal of Early Childhood Education*, 1-15.
- Jamil, N. (2012). Teachers' understanding on early mathematic concept. *Trend and Issue in Education*, 1-25.
- Jantan, R., Fauzi, S. F. M., & Resad, A. A. (2016). Entertainment activities among preschool teachers in Gombak. *Early Childhood Education Journal*, 5.
- Johari, K., Ismail, Z., Osman, S., & Othman, A. T. (2009). The influence of teacher training and teaching experience on the self-efficacy of secondary school teachers. *Malaysian Journal of Education*, 34(2), 3-14.
- Koehler, M. J., Mishra, P., Akcaoglu, M., & Rosenberg, J. M. (2013). *The technological pedagogical content knowledge framework for teachers and teacher educators. ICT integrated teacher education models* (pp. 1-8). New Delhi, India: Commonwealth Educational Media Center for Asia.
- Lee, J. (2010). Exploring kindergarten teachers' pedagogical content knowledge of mathematics. *International Journal of Early Childhood*, 42(1), 27–41. <https://doi.org/10.1007/s13158-010-0003-9>
- Lo, Y. P. (2014). *Preschool teacher's perspective on early mathematic education*. (Unpublished bachelor dissertation). Wesleyan University, Connecticut.
- Naziri, F., Rasul, M. S., & Affandi, H. M. (2019). Important of technological pedagogical and content knowledge (TPACK) in design and technology subject. *International Journal of Academic Research in Business & Social Sciences*, 9(1), 99-108. <http://dx.doi.org/10.6007/IJARBS/v9-i1/5366>
- Nganga, L. (2020). Analyzing children's literature for hidden bias helps preservice teachers gain pedagogical practices in critical multicultural education. *Journal of Research in Childhood Education*, 34(1), 93-107.
- Nopriyeni, Z. K., Prasetyo., & Djukri. (2019). The implementation of mentoring based learning to improve pedagogical knowledge of prospective teachers. *International Journal of Instruction*, 12(3), 529-540.

- Nubeiti, R. U. (2011). *The influence of education, training and teaching experience on teacher professionalism in Tsanawiyah Madrasah, Kediri*. (Unpublished masters thesis). Universitas Negeri Semarang, Indonesia.
- Oakley, G. (2020). Developing pre-service teachers' technological, pedagogical and content knowledge through the creation of digital storybooks for use in early years classrooms. *Technology, Pedagogy and Education*, 1-13.
- Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culkin, M. L., Howes, C., Kagan, S. L., & Yazejian, N. (2001). The relation of preschool child-care quality to children's cognitive and social developmental trajectories through second grade. *Child Development*, 72(5), 1534–1553.
- Rakib, M., Rombe, A., & Yunus, M. (2016). Influence of training and teaching experience on teachers' professionalism. *Journal of Administrative*, 3(2), 1-12.
- Siraj, S., & Ibrahim, M. S. (2012). *Standard kompetensi guru Malaysia*. Universiti Malaya.
- Stipek, D. (2014). Teaching practices in kindergarten and first grade: Different strokes for different folks. *Early Childhood Research Quarterly*, 19, 548-568. <https://doi.org/10.1016/j.ecresq.2004.10.010>
- Sulaiman, E. (2003). *Basic of pedagogy*. Johor: Cetak Ratu Sdn. Bhd.
- Sulatan, M. A., Masnan, A. H., Rohaizad, N. A. A., & Salleh, M. I. (2016). The preschooler understanding on shape and drawing concept. *Early Childhood Education Journal*, 5.
- Wazir, A. (2016). *Pedagogical content knowledge among Arabic teachers' in primary school*. (Unpublished doctoral dissertation). Universiti Kebangsaan Malaysia, Malaysia
- Yassin, Z. M. (2013). *Evaluation of higher thinking skills in historical subject in secondary school* (Unpublished doctoral dissertation). Universiti Kebangsaan Malaysia, Malaysia.
- Yunus, M. M., Kandasamy, M., & Hashim, H. (2018). Pedagogical content knowledge (PCK) of ESL primary school teachers in a rural school. *Asian EFL Journal Research Articles*, 20(12), 72-85.
- Zainal, T. Z. T., Mustapha, R., & Habib, A. R. (2009). Content pedagogical knowledge of Mathematics for fractional: A case study in primary school. *Malaysian Journal of Education*, 34(1), 131-153.
- Zamri, S. N. A. S., & Fadhil, N. A. M. (2014). The readiness of preschoolers in recognize Mathematic patterns. *Malaysian Journal of Education*, 39(1), 63-68.