

DO PRESCHOOL TEACHERS' PROFESSIONAL QUALIFICATIONS PLAY A ROLE IN ENHANCING THEIR UNDERSTANDING OF ECCE TRAINING?



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ABSTRACT

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Preschool teachers' professional development and professional qualifications are crucial in enhancing the quality of children's education. Studies related to the quality of preschool education and preschool teachers' professional qualifications are very limited in Malaysia. As such, this study embarks on finding the effects of ECCE teachers' professional qualifications on their understanding of overall ECCE training, perceptions of the quality of ECCE training, understanding of ECCE curriculum, and their understanding of the teaching and learning process. This study employed the descriptive research design using questionnaires to collect the data. The sample of the study consists of 296 preschool teachers from West Malaysia. The findings indicate that the ECCE teachers' professional qualifications have a significant effect on their understanding of the ECCE training. The results also show that ECCE teachers with higher professional qualifications have better perceptions of the quality of ECCE training compared with their counterparts with lower professional qualifications. The findings affirmed that the ECCE teachers with higher professional qualifications have a significantly better understanding of the ECCE curriculum compared to those with lower professional qualifications. These findings have crucial theoretical, pedagogical and practical implications in early childhood education.

Contribution/ Originality: Research on ECCE training is very limited in Malaysia as such this study contributes to the existing literature in this field. It is hoped that this study will shed some light on ECCE teachers' understanding of the quality of their ECCE training, ECCE curriculum and their teaching and learning processes.

1. INTRODUCTION

Preschool teachers' professional development and professional qualification are crucial in enhancing the quality of children's education. Sheridan *et al.* (2009) have also stressed that the knowledge, skills and practices of early childhood educators are important factors in determining how much a young child learns and how prepared the child is for entry into school. Preschool education prepares children with emotional and social competences which contribute positively to their school readiness and academic success. According to Avalos (2011) teachers' professional development is "learning how to learn, and transforming their knowledge into practice for the benefit of the

students' growth". According to a report by NAEYC (2015) preschool teachers' professional development is a continuum of learning and support activities designed to prepare individuals for work with and on behalf of young children and their families, as well as ongoing experiences to enhance this work. These provide platforms for preschool teachers to improve their knowledge, skills, practices and dispositions of early childhood professionals.

ECCE training for educators includes everything that is taught and learned and how it is evaluated (Brewer, 2007). In other words, what is taught refers to the contents of instructions, whereas how it is taught refers to the skills, teaching materials, teaching environment, the various approaches used by preschool teachers and elements of diversity interaction with children, parents and family. Evaluation refers to the assessment strategies used by the preschool teachers throughout the instruction process. In other words, as stressed by OECD (2015) teachers with high professional qualification have extensive pedagogical content knowledge and skills, better problem solving strategies, better adaptation for diverse learners, better decision making skills, better perception of classroom events, greater sensitivity to context, and greater respect for students. In terms of ECCE education, OECD (2006) also stressed that preschool teachers' professional qualifications and training will help enhance their quality of interaction and pedagogy skills in the classroom. This is because the higher their professional qualification, the better their knowledge, competencies and skills as preschool educators. Workman and Ullrich (2017) also stressed that teacher is the most critical component of quality in early childhood education. As such, they need to have the foundation knowledge of child development and the pedagogical knowledge to promote children's learning at various ages.

A study by Marcy (2003) revealed that teachers with four-year degrees in early childhood education were effective teachers and had positive interaction with children than those without these credentials. The findings also highlighted that children who had teachers with a bachelor's or associate's in early childhood education demonstrated stronger receptive vocabularies compared with children who were taught by teachers holding only a high school diploma. The study also affirmed that in order to secure high quality in early childhood education preschool teachers and child care providers need to acquire at least a bachelor's degree with specialized early childhood training. In other words the findings indicated that preschool teachers' professional qualifications affect their understanding of ECCE curriculum and have an impact on their teaching and learning activities.

Guerriero (2015) and Blömeke and Delaney (2012) opined that professional competence involves more than just knowledge. Other variables such as skills, attitudes, and motivation also contribute to teachers' professionalism and the mastery of teaching and learning. On the other hand Slavin (1984) advocated that besides content knowledge and pedagogical knowledge, teachers need to know children's aptitude, their general ability, prior knowledge and motivation to learn. Content knowledge and pedagogical knowledge are also important in planning and carrying out effective and meaningful learning activities. As such it can be concluded that teachers' knowledge, their professional qualifications and child motivation are fundamental in children's learning outcome.

Similarly studies by Hill *et al.* (2005); Baumert *et al.* (2010) and Voss *et al.* (2011) indicate that teachers' pedagogical content knowledge have an impact on the quality of instruction and children's learning outcome. Preschool teachers with higher professional qualification are rich in content knowledge and pedagogical knowledge. As such, they are more creative and able to plan and carry out the learning activities effectively compared to those with lower professional qualifications. According to Barnett *et al.* (2012) in US twenty-nine state-funded preschool programs currently require teachers with a bachelor's degree because teachers' qualification matters in the enhancement of preschool education. Similarly Early *et al.* (2007) opined that a comprehensive professional development for preschool teachers could provide the knowledge, skills, and support for teachers to provide high-quality early education for children.

In addition, a study in South Australia Krieg *et al.* (2015) revealed that children who attended early childhood education programs that were of higher quality with higher staff qualifications and more engaging children's activities, showed a greater gain in cognitive development than children who attended lower quality programs.

The results of their study also suggested that early childhood teachers' professional qualifications affect their quality of teaching and children's cognitive development. The findings also indicated that children who benefitted the most from attendance in these programs were children from backgrounds of greater social disadvantage than children from less disadvantaged backgrounds.

In relation to the quality of early childhood education, [Lara-Cinisomo et al. \(2009\)](#) highlighted that there are three dimensions of classroom experiences which are important for children in preschool. These are first teacher-child interactions, second, learning environment, and third learning opportunities. They stressed that variation in children's experiences in preschool may also be a result of teacher training in early childhood education. Teachers with higher professional qualifications will be able to deliver quality preschool experiences to children because they have a more in-depth knowledge of the curriculum, training, skills and pedagogy.

In Malaysia, all preschools including those in the public and private sectors have to follow all the guidelines stated in the Standard National Preschool Curriculum (SNPC) set by the Malaysian Ministry of Education (MOE) in 2010 ([Mariani, 2016](#)). However the professional qualifications of the preschool teachers in Malaysia range from a certificate to diploma, degree, Masters and PhD.

The objectives of the Malaysian preschool education cover six learning areas; they are:

1. language and communication
2. cognitive development
3. socio-emotional development
4. spiritual and moral development
5. physical development and
6. aesthetic and creative development.

Public preschools in Malaysia consist of the KEMAS preschool, PERPADUAN preschool, PERMATA preschool and the Ministry of Education (MOE) preschool. In addition there are also Islamic preschools under the state government such as *Jabatan Agama Islam Negeri (JAIN)*, *Angkatan Belia Islam Malaysia (ABIM)* and *Yayasan Pembangunan Keluarga Terengganu (YPKT)*. There are also private preschools such as the Montessori preschool, HighScope preschool, Reggio Emilia preschool, Bank Street preschool and Waldorf preschool. Apart from these, there are also international preschools such as Sri Bestari preschools, GEMS International Preschools, HELP International Preschools, Matrix International Preschools and many others. According to [Lily and Mohamed \(2013\)](#) the majority of parents prefer to send their children to private preschools compared with public preschools. Their study also revealed that the reasons for choosing the private preschools are because of their high quality programmes and their teachers are well trained and qualified. Similarly a study by [Badei and Sulaiman \(2014\)](#) in Kuala Lumpur also highlighted that the quality and qualification of private preschool teachers are higher than those in the public preschools. Since parents place high importance on the quality of preschool teachers, private preschools are the choice of well-to-do parents because they deem quality education as being crucial to their children.

Studies related to the quality of preschool education and preschool teachers' professional qualifications are very limited in Malaysia. As such, the current study embarks on finding the effects of ECCE teachers' professional qualifications on their understanding of overall ECCE training, perceptions of the quality of ECCE training, understanding of ECCE curriculum, and their understanding of the teaching and learning process.

1.1. Research Questions

This study attempts to answer the following research questions (RQ):

1. Do preschool teachers' professional qualifications have a significant effect on their understanding of overall ECCE training?

2. Do preschool teachers' professional qualifications have a significant effect on their perceptions of the quality of ECCE training?
3. Do preschool teachers' professional qualifications have a significant effect on their understanding of ECCE curriculum?
4. Do pre-school teachers' professional qualifications have a significant effect on their understanding of teaching and learning process during ECCE training?

2. METHODOLOGY

This study employed the descriptive research design using questionnaires to collect the data. The sample of the study consists of 312 preschool teachers from West Malaysia but only 296 completed the questionnaire (124 respondents from public preschools and 172 from private preschools). As such, 17 respondents who did not complete the questionnaires were dropped from the study. From the 296 respondents, 46 of them had a Degree/Masters/PhD qualification, 92 of them had Diploma qualifications and 158 of them had below Diploma qualifications (ECCE teaching certificates).

The questionnaire consists of two sections (A & B); Section A is on respondent's demography while Section B consists of 40 items on training (3 constructs). The 1st construct is on the teachers' understanding of the quality of the ECCE training (12 items); the 2nd construct is on teachers' perceptions of ECCE curriculum content (14 items) and the 3rd construct is on their understanding of teaching and learning (14 items). The items in the questionnaire used 4 Likert Scales (4 = strongly agree, 3 = agree, 2 = disagree, 1 = strongly disagree). The scores for each construct were obtained by adding the scores of all the items in the construct. The overall score for ECCE training was obtained by adding the scores of all the three constructs. The data obtained from the questionnaires were analyzed using SPSS programme for Windows; the One-way ANOVA test and Tukey HSD were used for data analysis.

3. FINDINGS AND DISCUSSION

Table-1. The mean score and SD of teachers for their overall ECCE training, quality of training, ECCE curriculum, teaching and learning

Teachers' Qualification		Overall ECCE Training	Quality of Training	ECCE Curriculum	Teaching & Learning
Below Diploma	Mean	128.18	39.08	44.08	44.82
	N	158	158	158	158
	SD	13.77	4.75	5.13	5.34
Diploma	Mean	130.84	39.60	45.84	45.45
	N	92	92	92	92
	SD	15.02	5.14	5.85	5.48
Degree/Masters/PhD	Mean	134.62	41.28	46.67	46.56
	N	46	46	46	46
	SD	11.96	4.27	5.08	4.87

The findings in Table 1 indicate that the teachers with Degree/Masters/PhD qualification had higher scores for overall ECCE training (Mean = 134.62, SD = 11.96) compared to teachers with Diploma qualifications (Mean = 130.84, SD = 15.02) and teachers with below diploma qualifications (Mean = 128.18, SD = 13.77).

Teachers with Degree/Masters/PhD qualifications also have a better perception of the quality of training (Mean = 41.28, SD = 4.27) compared to their counterparts with diploma qualifications (Mean = 39.60, SD = 5.14) and below diploma qualifications (Mean = 39.08, SD = 4.75).

The findings also indicate that teachers with Degree/Masters/PhD qualifications have a better understanding of ECCE curriculum (Mean = 46.67, SD = 5.08) compared to those with Diploma (Mean = 45.84, SD = 5.85) and below diploma qualifications (Mean = 44.08, SD = 5.13).

Teachers with Degree/Masters/PhD qualifications also have a better understanding of classroom teaching and learning process (Mean = 46.56, SD = 4.87) compared to those with diploma (Mean = 45.45, SD = 5.48) and below diploma qualifications (Mean = 44.82, SD = 5.34).

RQ1: Do pre-school teachers' professional qualifications have a significant effect on their overall understanding of ECCE training?

Findings from the one way ANOVA test in Table 2 indicate that teachers' professional qualifications have a significant effect on their overall understanding of ECCE training ($F=3.71$, $df=294$, $p=.02$). As such, these findings answer RQ1. The findings reveal that teachers with higher academic qualifications can understand better the ECCE training than their counterparts with lower professional qualifications and the difference is significant. These findings are parallel to findings by Early *et al.* (2007) which indicated that professional development for preschool teachers equipped them with knowledge, skills and support for providing a high-quality education for preschool children. In addition the findings also support findings by Krieg *et al.* (2015) which demonstrated that preschool teachers' higher qualifications contribute to better children's cognitive development because they are rich in knowledge and pedagogy and able to engage children actively in the process of learning.

Table-2a: One-way ANOVA test indicating teachers overall understanding of ECCE training

		Sum of Squares	df	Mean Square	F	Sig.
ECCE Training	Between Groups	1437.02	2	718.51	3.71	.026
	Within Groups	52340.96	294	193.86		
	Total	53777.99	296			

The level of significance is at $p<0.05$

Table-2b: Tukey HSD test comparing teachers' understanding of overall ECCE training based on their professional qualifications

Dependent variable		Professional Qualification	Professional Qualification	Mean Difference	SD	Sig.
Understanding of ECCE Training	Tukey HSD	Below Diploma	Diploma	-2.66	1.90	.341
			Degree/Masters/PhD	-6.44*	2.44	.0243
		Diploma	Below Diploma	2.66	1.90	.341
			Degree/Masters/PhD	-3.78	2.62	.320
		Degree/Masters/PhD	Below Diploma	6.44*	2.44	.024
			Diploma	3.78	2.62	.320

The level of significance is at $p<0.05$

Tukey HSD test was carried out to do a multiple comparison among teachers based on their professional qualifications. Findings from the Tukey HSD test indicate that teachers with below diploma qualification have lower understanding of overall ECCE training compared to their counterparts with diplomas but the difference is not significant (Mean difference = -2.66, $p=.341$). Teachers with below diploma qualification also have a lower understanding of the overall ECCE training compared to those with a Degree/Masters/PhD and the difference is significant (Mean difference = -6.44, $p=.024$).

Teachers with diploma qualifications have a better understanding of overall ECCE training compared with those with below diploma qualifications but the difference is not significant (Mean difference = 2.66, $p=.341$). On the other hand, teachers with diploma qualifications have a lower understanding of the overall ECCE training

compared to their counterparts with Degree/Masters/PhD but the difference is not significant (Mean difference = -3.78, $p=.320$).

The findings from Tukey HSD conclude that teachers' academic qualifications have a significant impact on their overall understanding of ECCE training. Teachers with higher academic qualifications have a better understanding of overall ECCE training compared to those with lower academic qualifications.

RQ2: Do pre-school teachers' professional qualifications have a significant effect on their perception of the quality of ECCE training?

Table-3a. One-way ANOVA test indicating teachers understanding of quality of ECCE training

		Sum of Squares	df	Mean Square	F	Sig.
Quality of ECCE Training	Between Groups	172.512	2	86.256	3.74	.025
	Within Groups	6765.376	294	23.090		
	Total	6967.889	296			

The level of significance is at $p<0.05$

Findings in Table 3a indicate that there is a significant difference in teachers perception of the quality of ECCE training according to their academic qualifications and the difference is significant ($F=3.74$, $p=.025$). Therefore, RQ2 is answered. The findings affirm that teachers with higher academic qualifications perceived a higher quality of ECCE training compared with their counterparts with lower academic qualifications. As stressed by Barnett *et al.* (2012) preschool teachers' qualification matters in understanding the preschool training and later they are able to deliver quality education to children.

Table-3b. Tukey HSD test comparing teachers' perception of the quality of ECCE training according to their professional qualifications

Dependent variable		Professional Qualification	Professional Qualification	Mean Difference	SD	Sig.
Quality of ECCE Training	Tukey HSD	Below Diploma	Diploma	-.52	.63	.69
			Degree/Masters/PhD	-2.20	.81	.01
		Diploma	Below Diploma	.52	.63	.69
			Degree/Masters/PhD	-1.68	.87	.13
		Degree/Masters/PhD	Below Diploma	2.20	.81	.01
			Diploma	1.68	.87	.13

The level of significance is at $p<0.05$

Tukey HSD test was carried out for the purpose of a multiple comparison among teachers on the quality of ECCE training according to their professional qualifications. Findings in Table 3b indicate that teachers with below diploma qualifications have a lower mean score in their perception on the quality of ECCE training compared with teachers with diploma qualifications (Mean difference=-.52, $p=.69$) but the difference is not significant. Teachers with below diploma qualification also have a lower mean score compared with those with Degree/Masters/PhD qualification (Mean difference=-2.20, $SD=.63$, $p=.01$) and the difference is significant.

Teachers with a diploma qualification have a higher mean score in their perception of quality of ECCE training compared with those having below diploma qualifications (Mean difference=.52, $SD=.63$, $p=.69$) and the difference is not significant. On the other hand teachers with a diploma qualification scored lower mean than those with Degree/Masters/PhD qualifications (Mean=-1.68, $SD=.87$, $p=.13$) but the difference is not significant.

Findings from Tukey HSD test conclude that teachers' professional qualification (Degree/Masters/PhD) has a significant effect on their perception of the quality of ECCE training compared to those with below diploma qualifications.

RQ3: Do pre-school teachers' professional qualifications have a significant effect on their understanding of ECCE curriculum?

Table-4a. One-way ANOVA test indicating teachers understanding of ECCE curriculum

		Sum of Squares	df	Mean Square	F	Sig.
ECCE Training	Between Groups	317.062	2	158.531	5.534	.004
	Within Groups	8106.737	294	28.646		
	Total	8423.737	296			

The level of significance is at $p < 0.05$

Findings in Table 4a indicate that there is a significant difference in teachers understanding of the ECCE curriculum according to their professional qualifications and the difference is significant ($F=5.354$, $p=.004$). In other words the results show that teachers with higher professional qualifications understand the ECCE curriculum better than those teachers with lower qualifications. The results answer RQ3. These findings support findings by OECD (2006) and Marcy (2003) which revealed that teachers with four-year degrees in early childhood education understand the preschool curriculum better and have positive interaction with children compared to their counterparts with lower qualifications.

Table-4b. Tukey HSD test comparing teachers understanding of ECCE curriculum

Dependent variable		Professional Qualification	Professional Qualification	Mean Difference	SD	Sig.
Understanding of ECCE Training	of Tukey HSD	Below Diploma	Diploma	-1.76	.72	.039
			Degree/Masters/PhD	-2.59	.91	.013
		Diploma	Below Diploma	1.76	.72	.039
			Degree/Masters/PhD	-.83	.98	.68
		Degree/Masters/PhD	Below Diploma	2.59	.91	.013
			Diploma	.83	.98	.68

The level of significance is at $p < 0.05$

Tukey HSD test was carried out for the purpose of a multiple comparison among teachers on their understanding of the ECCE curriculum based on their professional qualifications. Findings from Tukey HSD test in Table 4b indicate that teachers with below diploma qualification have lower understanding of ECCE curriculum compared to those with diploma qualifications and the difference is significant (Mean difference=-1.76, SD.72, $p=.039$). Teacher with below diploma qualification also have a lower understanding of ECCE curriculum compared to teachers with Degree/Masters/PhD (Mean difference=-2.59, SD=.91, $p=.013$).

Teachers with a diploma qualification have higher understanding of ECCE curriculum compared to those with below diploma qualifications (Mean difference= 1.76. Sd.72, $p=.039$) and the difference is significant. On the other hand teachers with a diploma qualification have a lower understanding of ECCE curriculum compared to those having Degree/Masters/PhD (Mean=-.83, SD=.98, $p=.68$) but the difference is not significant.

Findings from Tukey HSD test conclude that preschool teachers with higher professional qualifications have a better understanding of the ECCE curriculum compared with teachers with lower academic qualifications.

RQ4 Do pre-school teachers' professional qualifications have a significant effect on their understanding of teaching and learning process during ECCE training?

Table-5a. One-way ANOVA test indicating teachers understanding of teaching and learning process during ECCE training

		Sum of Squares	df	Mean Square	F	Sig.
ECCE Training	Between Groups	106.098	2	53.049	1.875	.155
	Within Groups	8290.737	294	28.296		
	Total	8396.834	296			

The level of significance is at $p < 0.05$

Findings in Table 5a indicate that there is no significant difference in teachers' understanding of teaching and learning process during the ECCE training, based on their academic qualifications and the difference is not significant ($F=1.875$, $p=.155$). As such, these findings answer RQ 4 and Tukey HSD test was not carried out for a multiple comparison among teachers on their understanding of the ECCE teaching and learning based on their professional qualifications. The findings also affirm that ECCE teachers' professional qualifications have no significant effect on their understanding of teaching and learning process in the classroom. These findings support the notion by [Slavin \(1984\)](#) who advocated that besides content knowledge and pedagogical knowledge teachers also need to know children's aptitude, their general ability, prior knowledge and motivation to carry out interactive teaching and learning effectively.

4. CONCLUSION

This study has revealed some pertinent findings. Firstly, the findings indicate that the ECCE teachers' professional qualifications have a significant effect on their understanding of the ECCE training. Secondly, the results clearly show that ECCE teachers with higher professional qualifications have better perceptions of the quality of ECCE training compared with their counterparts with lower professional qualifications, and the difference is significant. Thirdly, the findings affirm that the ECCE teachers with higher professional qualifications have a significantly better understanding of the ECCE curriculum compared to those with lower professional qualifications. Fourthly, the results reveal that ECCE teachers professional qualifications have no significant effect on their understanding of teaching and learning processes. The findings of this study also have crucial theoretical, pedagogical and practical implications. In terms of theoretical implications the findings support the notion that teachers' professional qualification matters in enhancing their perception of the quality of ECCE training, understanding of ECCE training and the ECCE curriculum. In terms of pedagogical implications the current research concludes that teachers with higher professional qualifications are well equipped with knowledge and skills which enable them to gauge the quality of ECCE training, understand the ECCE training and the ECCE curriculum better than the teachers with lower professional qualifications. As stressed by [OECD \(2015\)](#) preschool teachers with higher professional qualifications are better teachers because they are more knowledgeable, have better skills, have better practices and are more effective. In terms of practical implication, this study advocates that a first degree should be the minimum qualification for the preschool teachers because the results indicate that the ECCE teachers with higher professional qualifications are well equipped with knowledge and skills compared to their counterparts with lower academic qualifications. Therefore, the Ministry of Education should take this matter seriously and take the necessary steps to provide funding and training to preschool teachers to enhance their professional qualifications. In order to come up with viable remedy, the Teachers Training Division should also

train more preschool teachers at degree level to enhance our preschool education to be on par with other developed countries.

There are some limitations in this study; firstly this study only employed quantitative data to investigate whether preschool teachers' level of professional education affects their perception of the quality of ECCE training, understanding of ECCE training and the ECCE curriculum. As such it is hoped that future research should also employ qualitative data from interviews and observations to get a more in-depth understanding of the issue. It is also hoped that future research will involve a larger sample from East and West Malaysia. The current study only used SPSS Program for Windows for quantitative data analysis. It is hoped that future studies will employ software's analysis like NVIVO and other procedures to analyze the qualitative data.

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