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Teachers' Knowledge on the Implementation of the Montessori Curriculum

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Abstract

This study investigates the knowledge level of private kindergarten teachers in the Kuala Lumpur – Keramat Zone regarding the Montessori Curriculum. The Montessori Curriculum enhances children's development by focusing on the teacher and their environment. A survey research design with a qualitative approach was utilised, and a total of 284 private kindergarten teachers participated in this study. Data was collected through a questionnaire consisting of two sections: A: Demography Information and B: Teachers' Knowledge, distributed in kindergartens and through the WhatsApp application via the Google Form platform. Respondents had a month to answer the questionnaire. The data were analysed using IBM Statistical Package for Social Science (SPSS) software version 27.0, and the results revealed that the teachers have a high level of knowledge in implementing the Montessori curriculum. This finding indicates that the teachers are well-versed in the curriculum, which can aid private kindergartens in determining their teachers' level of knowledge. The teacher's curriculum knowledge will help produce meaningful teaching and learning experiences.

Keywords: Montessori, Curriculum, Knowledge, Implementation, Kindergartens

Introduction

The Montessori Curriculum is recognised as a dynamic curriculum for children, teachers, and the environment. According to Chloe Marshall (2017), the Montessori curriculum emphasises the teacher's role in guiding students in the "Prepared Environment." Maria Montessori is deemed a pioneer in special education (Samuel L. Odom et al., 2005). Through the development of this curriculum, Maria adhered to the concept that children can be nurtured through the learning-sensitive period and multiple phases of development and self-construction by engaging in self-directed activities in a specially designed environment.

The Montessori curriculum is divided into the primary curriculum and cultural. The primary curriculum comprises four subjects: practical life, sensorial, language, and mathematics. Culture comprises geography, science, and history (Roopnarine & Johnson, 2013). These subjects provide children with experiences pertinent to their everyday lives (Maria Montessori, 1973). Furthermore, it would help children's "absorbent minds" to translate situations through hands-on activities and adapt to the real world (Montessori, 2007). Montessori teaching materials are essential in the Montessori classroom environment.

According to the SAMA Organization (2018), Montessori material is a set of objects specifically designed for each use within each Montessori subject.

According to Cossebtino & Whitcomb (2003), the role of Montessori teachers is to respect children, value each child's development, and encourage the formation of individual personalities. Maria Montessori argued that children should be given freedom in the classroom setting to accomplish this objective (Montessori, 1964)

However, the teacher must first set up the space (prepared environment). This space will help students feel more included in their day-to-day school activities. Giving children freedom within the available space will help them develop in line with their natural tendencies. Therefore, the responsibility of Montessori teachers is not to "teach" children's deficiencies. Instead, the teacher observes the child's development, provides Montessori materials, and offers guidance through instructions and incentives. This aligns with (Rita Kramer (2017) assertion that teachers are trained to "not interfere with the child's focused activity."

A teacher's familiarity with a curriculum is necessary for Teaching and Learning sessions to operate smoothly. Knowledge will increase as they gain more work experience (Masnan et al., 2019). Teachers can also enhance teaching and learning in the classroom if they are familiar with a curriculum. According to Hamat et al (2007), knowledge is an approach that must be considered seriously by all societal levels to aid in society's development.

Multiple studies have been conducted to characterise the teachers' knowledge level. Studies by Ibrahim & Mohamed (2021), Ab Hakim & Iksan (2018); Suzlina et al (2016) conducted research describing the knowledge of teachers regarding a particular approach and curriculum. Several issues have been discussed, including non-optional teachers in preschool education, teacher knowledge of Problem-Based Learning (PBL), and Bahasa Melayu Teacher knowledge level against using WEB 2.0 in Bahasa Melayu subjects. Based on stated problem statements, the researchers found that teachers' knowledge of the Montessori Curriculum has yet to be extensively explored. Thus, this study was conducted to identify the level of teachers' knowledge towards implementing the Montessori curriculum in private kindergartens.

Teacher Knowledge

Knowledge is the information a person discovers to acquire the understanding, learning, and experience that influence the concept of knowing (Noor et al., 2015). According to Huai & Lian (2015), a teacher's knowledge is required for educational innovation to occur. Teachers can create meaningful and beneficial teaching and learning sessions for students and themselves if they deeply understand a subject. Teachers play a crucial role in education, and they are regarded as a mechanism that will aid in the development of children.

According to Henrietta et al (2023), teachers' knowledge in teaching science subjects in Montessori is more effective than conventional methods. This is because the teacher believes that the Montessori Curriculum has more excess to more Montessori materials based on science subjects.

However, according to a study by Bakri et al (2022), teachers have negative perceptions of the Montessori Curriculum for Teaching English. They are reluctant to implement it due to a lack of knowledge. In addition, a minority of teachers believe that this curriculum's pedagogy does not explicitly define the role of the educator.

According to the study by Almajed (2020), teachers' knowledge of the Montessori Curriculum is limited because institutions are more likely to follow a conventional educational

model. This aligns with research by Kofa (2017) discovered that teachers possessed a low level of Montessori knowledge because teachers prefer to employ more formal and conventional learning methods.

Atis-Akyol et al (2023) have found that insufficient training in Montessori practice leaves teachers lacking knowledge of the curriculum. This supports Feez (2010) assertion that it takes at least a year for teachers to understand Montessori techniques comprehensively.

According to Sibel et al (2016), although early childhood teachers receive training and possess knowledge related to the Montessori Curriculum, their expertise needs to be improved due to its lack of implementation in the classroom.

Methodology

This research utilised a quantitative survey-based methodology. According to Sarmento & Vera Costa (2017), descriptive analysis is an effective way to summarise and describe data. The study was conducted at sixteen private kindergartens in and around Kuala Lumpur (Keramat Zone) registered with the Malaysian Ministry of Education (KPM). Simple sampling techniques were utilised in this research. According to the Malaysian Ministry of Education, there are 1056 private kindergarten teachers in Kuala Lumpur - Keramat Zone. Using Raosoft Software 2004, a minimum sample size of 282 individuals was used to conduct a random sampling.

Table 1

Presents the demographics of the respondents.

Item		Frequency (n)	Percent (%)
Gender	Male	65	22.9%
	Female	219	77.1%
Race	Malay	190	67.9%
	Chinese	45	15.9%
	Indian	42	14.8%
	Others	7	2.4%
Age	20 to 30 years old	213	75.0%
	31 to 40 years old	49	17.3%
	41 to 50 years old	17	6.0%
	51 to 60 years old	7	2.4%
Level of Education	SPM	17	6.0%
	STPM/Diploma	99	34.9%
	Bachelor's degree	128	45.1%
	Master's degree	40	14.1%
Teaching Experiences	0 to 5 years	202	71.1%
	6 to 10 years	54	19.0%
	11 to 15 years	12	4.2%
	16 to 20 years	9	3.2%
	21 to 25 years	4	1.4%
	26 and above	3	1.1%

Instruments

The instruments were constructed independently in this investigation and subsequently subjected to a regression procedure. There are two parts to this questionnaire: Part A is the respondent's background, and Part B is the teachers' level of knowledge on implementing the Montessori Curriculum in private kindergarten. This survey uses positive statements. Using 5 points Likert scale that ranges from 1-5 (strongly disagree to strongly agree).

According to Ghazali et al (2021), the outcomes of the pilot study allowed researchers to improve each tested instrument and determine the instrument's reliability. Therefore, a pilot study was conducted initially. A total of 35 participants answered each question on the distributed survey instrument. The Cronbach's Alpha method is used to analyse respondent feedback. The analysis of the knowledge items revealed that the survey questionnaire for this study had a Cronbach's Alpha coefficient of 0.90. Based on the Rasch measurement model (Trevor G. Bond & Christine M. fox, 2015). The Alpha Cronbach score is acceptable if this reliability value exceeds .70 (Zeller & Carmines, 1979)

Data Collection and Analysation

This study uses the Google Form survey questionnaire as a research instrument. A questionnaire was disseminated to private kindergarten teachers via a visit and WhatsApp application. A Total of 284 respondents answered the questionnaire. This study's data were analysed using IBM Statistical Package for Social Science (SPSS) 27.0 Version. The Data obtained were analysed using SPSS software in the form of descriptive analysis to see the mean (M) and standard deviation (SD).

Research

This questionnaire measures teacher knowledge of the Montessori Curriculum to determine the level of teacher knowledge. The results of the descriptive analysis are displayed in Table 2. The study found a very high mean score (Mean = 4.43, SD = 0.54).

Table 2

Level of Teachers' Knowledge in Montessori Curriculum

	Items	SD (%)	D (%)	NS (%)	A (%)	SA (%)
1	The Montessori curriculum requires a "Prepared Environment."	0 (-)	0 (-)	28 (9.9)	73 (25.7)	183 (64.4)
2	Teachers and schools should offer freedom in the "Prepared Environment" to achieve Montessori Curriculum aims.	0 (-)	1 (0.4)	38 (13.4)	81 (28.5)	164 (57.8)
3	The Montessori curriculum includes Practical Life, Sensorial, Language, Number Work, and Cultural.	1 (0.4)	2 (0.7)	26 (9.2)	73 (29.7)	182 (64.1)
4	"Cultural Areas" teach biology and geography.	6 (2.1)	6 (2.1)	46 (16.2)	77 (27.1)	149 (52.5)

5	Montessori Curriculum Teaching and Learning uses the "3 Period Lesson" technique.	0 (-)	8 (2.8)	43 (15.1)	83 (29.2)	150 (52.8)
6	"Control of Error" is used in the Montessori curriculum to assist children in evaluating their own work.	1 (0.4)	5 (1.8)	34 (12.0)	89 (31.3)	155 (54.6)
7	Children should be allowed to choose which material they wish to work with, and teachers should provide them with the freedom to do so.	3 (1.1)	13 (4.6)	27 (9.5)	73 (25.7)	169 (59.2)
8	Teachers should provide a clean, attractive, and well-maintained space to attract children's attention.	0 (-)	0 (-)	13 (4.6)	56 (19.7)	215 (75.7)
9	Children will be given Montessori materials based on their interests and skills to prepare for the "Preparatory" class of 4-6 years.	1 (0.4)	10 (3.5)	36 (12.7)	82 (28.9)	155 (54.6)
10	All Montessori materials must be "real"	0 (-)	5 (1.8)	29 (10.2)	79 (27.8)	171 (60.2)
11	I know the importance of the Montessori "5 Areas"—Practical Life, Sensorial, Number Work, Language, and Culture.	1 (0.4)	8 (2.8)	31 (10.9)	70 (24.7)	174 (61.3)
12	Know how to use Montessori teaching materials.	3 (1.1)	3 (1.1)	28 (9.9)	72 (25.4)	178 (62.7)
13	I know the advantages of using the Montessori curriculum.	1 (0.4)	10 (3.5)	30 (10.6)	93 (32.8)	150 (52.8)
		M= 4.43		SD= 0.54		

*SD= Strongly Disagree, D= Disagree, NS= Not Sure, A= Agree, SA= Strongly Agree

Discussion

The analysis of the findings demonstrates that private kindergarten teachers have a high level of knowledge regarding implementing the Montessori Curriculum in private kindergarten. It demonstrates that private kindergarten teachers know how to implement the Montessori Curriculum. This research result is in line with the Namukasa & Aryee (2021), that stated it is crucial that teachers understand the Montessori curriculum, philosophy, classroom, and evaluation practises to facilitate teaching and learning in the educational system. Furthermore, according to Kutaka et al (2017), the concept of trust in knowledge plays a significant role in developing effective classroom practice. Teachers must consider their knowledge of the learning material to conduct teaching and learning sessions more efficiently and effectively.

Teacher knowledge is believed to be one of the most crucial factors for implementing curriculum changes in a particular field. According to a study by (Huai & Lian (2015), teachers' knowledge of implementing the KSSR is high because they are always willing to use and implement new curricula. It accords with the findings of Tasir & Lim (2010), which state that the level of teacher knowledge is crucial for assuring the implementation of educational innovation.

It is essential for teachers to have a thorough understanding of the curriculum in their field. This is due to the fact that teachers are the most critical aids in assisting youngsters in forming their whole development. Teachers with more expertise can facilitate more productive learning and teaching experiences for their students.

Conclusion

The study's findings indicate that teachers in private kindergartens have a high level of knowledge regarding implementing the Montessori Curriculum. This study helps teachers in implementing Montessori Curriculum-based teaching and learning sessions. Montessori curricula could help in the cognitive development of children. Each Montessori material constructed has a unique meaning and function that can attract children's attention during teaching and learning sessions, and teachers can manipulate lessons in the classroom by including a Montessori curriculum approach depending on the activities conducted. In addition, this curriculum's "child-centred" nature indicates that it helps children without coercion and based on their abilities. Knowing how to implement the Montessori curriculum helps teachers expand their teaching approaches and develop their teaching skills.

This research aims to develop a specialised module for teachers to use with The Montessori Curriculum. By providing a comprehensive guide, private kindergartens using this curriculum can ensure that all aspects are met. Additionally, this study aims to enhance teachers' knowledge of The Montessori Curriculum, which is believed to promote innovation in education. Furthermore, this study can serve as a helpful guide for teachers, The Malaysia Ministry of Education (KPM), and schools to provide valuable support and encouragement for teachers who implement The Montessori Curriculum. An advanced proposal for this study is to focus on teachers' attitudes and practices when implementing The Montessori Curriculum in private kindergartens. Including these elements in future research could enable researchers to gain insight into teachers' perceptions of The Montessori Curriculum.

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