THE STUDY OF EARLY CHILDHOOD TEACHERS' PICTURE FLASH CARDS TEACHING PRACTICES IN THE PERSPECTIVE OF MULTIPLE INTELLIGENCE THEORY - AN EMPIRICAL INVESTIGATION BASED ON SELANGOR STATE

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ABSTRACT

Based on Howard Gardner's Multiple Intelligence Theory, this study examines the teaching practices of early childhood teachers in Selangor using picture memory cards, focusing on three core issues: differences in vocabulary teaching strategies among teachers with different academic qualifications, the fun design of the picture drawing cards, and their ease of use as a teaching method. This study used a quantitative approach with a structured questionnaire survey of 150 early childhood teachers. This study found that teachers' academic qualifications were significantly related to teaching strategies, with teachers with a bachelor's degree being the most involved in vocabulary explanation and exercise design; teachers with a high school degree used it the least frequently; in addition to this, this study found that picture flash cards fun presented content density priority characteristics, with insufficient technological integration and formal innovation; lastly, this study found that teachers generally recognised the interactivity and ease of use of picture flash cards, with young children's picture recognition mean value is close to 'Strongly Agree', but there is a disagreement between the frequency of use and the effect of Peer Quiz. This study confirms the guiding value of Multiple Intelligence Theory on teaching strategies, and suggests that future studies expand geographical samples, introduce qualitative methods, and compare the effects of other teaching tools in order to improve the application path of Picture Flash Cards in early childhood education.

Keywords: Multiple intelligence theory, Picture flash cards, Fun, Ease of Use.

1.0 INTRODUCTION

Howard Gardner's theory of multiple intelligences (Gardner, 2024) reveals the diversity of learners' perceptions and abilities, prompting teachers to adopt instructional tools adapted to multiple needs (Chiofalo et al., 2023). This theory has demonstrated its value in guiding practice at different stages of education. In US secondary language teaching, a combination of Flash Cards + role-playing based on Multiple Intelligence Theory resulted in a significant increase in vocabulary retention (Andari et al., 2022), while in Indonesian primary science classes, Flash Cards combining Logical-Mathematical Intelligence and Spatial Intelligence significantly improved students' understanding of abstract principles (Rohmah et al., 2024). 2024). These cross-phase studies confirm the broad applicability of the combination of multiple intelligence theory and flashcard tools and provide an important reference for practice in the field of early childhood education.

Flash Cards are widely used in teaching factual knowledge in language, science, and other fields by virtue of the 'retrieval-feedback' closed loop (Prodyanatasari et al., 2023). The advantages of Flash Cards in early childhood education over other teaching tools have been supported by cross-national empirical evidence: Indonesian scholars (Rini, 2023) found that Flash Cards based on Multiple Intelligence Theory activated Naturalistic Observational Intelligence and Linguistic Intelligence, and significantly increased the species identification accuracy of 4-5 year old children, which was significantly higher than that of the traditional picture book teaching; and research in the UK pre-schools showed that the incorporation of musical intelligence elements (e.g., matching pictures) was a good way of improving the accuracy of the Flash Cards in early childhood education. Research in British preschools has shown that designs that incorporate elements of musical intelligence (e.g., illustrated vocal Flash Cards) can significantly increase children's engagement in learning (Naranjo Chimborazo, 2024). These studies confirm the innovative value of combining flashcard tools with multiple intelligence theory, and provide a feasible basis for their use in early childhood education.

From the perspective of cognitive psychology, Flash Cards strengthen memory pathways through repetitive retrieval, which meets the needs of mechanical memory for vocabulary and symbols (Chiofalo et al.,2022). In pedagogical practice, their function is threefold: in knowledge construction, they are used for teaching new words, grammar exercises and knowledge review (Hamu et al., 2023); in classroom interaction, they are used as warm-up activities or competition tools to liven up the atmosphere (Oktaviani & Isdaryanti, 2023); and in personalised learning, the teacher can adjust the level of difficulty according to the needs of the students (Rachmadi Paldy et al. (2025) demonstrated that the fun design increased children's information uptake by more than 30% and that cards incorporating emoticons promoted interpersonal intelligence (Shariati et al., 2024). This result is consistent with the use of Flash Cards in early childhood education in Japan, where a kindergarten in Tokyo used Flash Cards to activate Interpersonal Intelligence, resulting in a significant increase in peer co-operative behaviours (Angeling et al., 2024).

However, the Picture Flash Card suffers from sensory homogeneity and poor group adaptation. The over-reliance on visuals makes it difficult to explain abstract concepts (Wahyuningsih et al., 2023), and students in the back row of a large class have difficulty recognising the images. In this regard, studies have proposed improvement strategies: multimodal integration of pictures and audio QR codes (Prasanti, 2024); dynamic design of sequential pictures to present complex concepts (Astuti & Chandra, 2023); and solving the visibility problem by projections or developing e-APPs (Azhari, 2022) in order to improve the effectiveness of the teaching and learning. These improvements are in line with international trends, as Finnish preschools have begun piloting AR Interactive Flash Cards to address the limitations of traditional flash cards by activating spatial and kinesthetic intelligence (Putri et al., 2025).

Although existing studies have covered the application scenarios and design principles of Picture Flash Cards, there is still a gap in empirical research for the early childhood population: compared to the primary and secondary school levels, the characteristics of young children's intellectual development (e.g., predominantly figurative thinking) place more specific demands on the multi-intelligence suitability of Flash Cards; at the same time, the cultural backgrounds (e.g., differences in the linguistic system and educational goals) of different countries may also

affect the effectiveness of the strategy. Therefore, this study focuses on the following issues with a sample of early childhood teachers in Selangor, Malaysia:

    i.   how do early childhood teachers at different levels of education teach young children vocabulary through picture flash cards?

    ii.   How interesting are the picture flash cards used by teachers?

    iii.   3.How interesting are picture flash cards for teachers to use?

2.0 THEORY

This study is based on Howard Gardner's Multiple Intelligences Theory, which states that there are eight relatively independent types of intelligence, including linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, introspective, and naturalistic observational intelligences, each with its own unique cognitive and developmental pathways (Sparks, 2023). This theory emphasises that intelligence is a cluster of diverse and independently developed abilities, and that learners' strengths in different types of intelligence vary significantly, which requires a diversity of teaching strategies (Manrique Chávez et al., 2023).

This study focuses on the use of picture flash cards by early childhood teachers in Selangor, and the Multiple Intelligence Theory underpins this study at the following levels:

i. The theory of multiple intelligence provides a logical basis for the pedagogical value of picture flash cards.

Picture flash cards are designed to activate spatial intelligence and verbal intelligence simultaneously. 96.7% of the teachers in this study used mixed-text picture flash cards, which confirms the synergistic effect of picture flash cards on the synergistic development of multiple intelligences. The Multiple Intelligence Theory emphasises the differences of learners. Picture flash cards can be adapted to different needs through single-player exercises and group competitions, and teachers can activate children's physical-kinesthetic intelligence through 'acting out words', which demonstrates the multi-adaptability of teaching tools.

ii. Analysis of theory-guided research on differences in teaching strategies

This study revealed a strong correlation between academic qualifications and the application of the theory. 42 undergraduate teachers, based on their in-depth understanding of Multiple Intelligence Theory, fully utilised a multimodal teaching strategy, integrating multiple modes of intellectual activation through the use of Picture Memory Cards. In terms of the appropriateness of the teaching strategies, 92.7% of the teachers used double-sided annotated cards to enhance visual stimulation, and 55.3% of the teachers endorsed the group Quiz activity to activate interpersonal intelligence, which is in line with the principles of the theory. However, the problem of visual dependence identified by the theory is also consistent with the finding that picture flash cards are weak in explaining complex content.

For this reason, the study proposed a multidimensional design incorporating auditory and physical activities to compensate for the single visual limitation and activate multiple intelligences. The conclusion shows that the multidimensional design of picture flash cards can

significantly enhance children's engagement and memory. The theory of multiple intelligences builds a complete logical chain from learner differences to effect evaluation, which not only explains the basis for the design of teaching tools and strategy selection, but also enhances the theoretical depth of the study and becomes the core framework throughout the study.

3.0 METHODS

3.1 Research design

This study used quantitative research methodology to explore the current situation of early childhood teachers' use of picture memory cards in Selangor. Through structured data collection, teachers' teaching behaviours and tool usage characteristics were transformed into quantitative variables, descriptive statistics and reliability tests were completed with the help of SPSS, and the results were presented visually in graphs. A standardised questionnaire (sections A - D) was used to ensure the consistency and comparability of the data from the sample of 150 teachers with regard to quantifiable questions such as 'how to teach', 'how interesting', 'whether it is easy', etc. This effectively avoids subjective bias. The standardised questionnaire (sections A - D) ensures consistency and comparability of the data from the sample of 150, effectively avoiding subjective bias.

3.1 Sampling Method

The quantitative research method of combining purposive sampling and questionnaire was used in this study with 150 early childhood teachers in Selangor. Purposive sampling is based on the research objectives and subjective selection of eligible individuals (Robinson, 2024), which fits the needs of this study to verify the differences in the application of picture flash cards under the Multiple Intelligence Theory. Its advantage is that the sample can be screened by geographical and occupational characteristics (Ahmad & Wilkins, 2025), directly targeting the population of early childhood teachers in the state of Selangor, avoiding the interference of non-targeted samples, and at the same time quickly reducing the cost of the study (Makwana et al., 2023). This study demonstrated the efficiency of the method by completing 150 valid data collections within 15 days through Google online questionnaire.

Purposeful sampling complements quantitative research by ensuring that the distribution of sample variables is realistic and provides a basis for statistical analysis; it also serves the logic of the study by making comparative analyses of teachers with different academic qualifications statistically significant, which strongly supports the study of differences in teaching strategies under the guidance of multiple intelligence theory.

3.2 Questionnaire Design

This study employed a questionnaire survey as the research tool, and the questionnaire was divided into four parts. Part A collected the demographic information of the teachers; Part B explored the ways in which teachers with different academic levels used picture memory cards to teach vocabulary; Part C evaluated the simplicity of picture memory cards as a teaching method; Part D investigated its趣味性. The questionnaire included multiple-choice boxes, yes/no questions, and Likert 5-point scales (ranging from strongly disagree to strongly agree,

with 1-5 points). Through the analysis of the questionnaire data, a systematic understanding of the current situation of preschool teachers using picture memory cards can be obtained.

3.3 Data analysis

After data collection was completed, the study used SPSS software to analyse the data. A Likert scale (Strongly Disagree to Agree) was used to measure the data, and descriptive results were presented by calculating the mean score and standard deviation. The reliability of the questionnaire was tested using the Cronbach Alpha Test, which judges the quality of the questionnaire by measuring the internal consistency of the items. After SPSS analysis, the Cronbach Alpha values of all items in the questionnaire exceeded 0.8, indicating that the questionnaire has a high reliability, which provides a strong support for the reliability of the research results.

4.0 RESULTS

4.1 Population information

Table 1 presents the demographic data collected from pre-school teachers in Selangor. A total of 150 respondents participated in this study. This study was conducted using Google Forms link and consisted of 4 sections, namely Section A, Section B, Section C and Section D. For the demographic profile of Section A, 128 respondents were female teachers and 22 respondents were male teachers. In terms of age, the largest number of teachers were aged 23-27 years with 54 teachers and 18-22 years with 12 teachers. However, in terms of the ethnicity of the pre-school teachers, a total of 105 teachers were Malay, 28 teachers were Chinese and 20 teachers were Indian. The majority of the teachers had diploma qualifications, resulting in 80 respondents, 42 respondents with a Bachelor's Degree and 28 respondents with a Higher Secondary Degree.

Table 1 Population information

Variables		N	%
Gender	Female	128	85.3
	Male	22	14.7
Age	18-22	12	8
	23-27	54	36
	28-32	53	35.3
	33 and above	31	20.7
Race	Malay	102	68
	Chinese	28	18.7
	Indian	20	13.3
Academic Qualification	Bachelor	42	28
	Diploma	80	53.3
	High School	28	18.7
Total		150	100

4.2 Teachers at different academic levels teach vocabulary to children through picture flashcards

Table 2 presented how the teacher from different academic level teach vocabulary to children through picture flashcards. There are 5 items in this part. From 150 respondents, 42 respondents are from bachelor, 80 respondents from diploma and 28 respondents from high school academic qualification. From Figure 1, we can see that respondents from bachelor did all the 5 item which is introducing new vocabulary with good pronunciation, teacher give exercises to children in order to practice vocabulary, the words in picture flashcards is presented through acting, teacher explain each word and ask the children to repeat and teacher gives Spelling-Bee based on picture flashcard.

Figure 1 shows teachers at different academic levels teaching vocabulary to children through the use of picture flashcards.Teachers with Diploma qualifications: the frequency of use of the five items is generally high (Item 1 = 73, Item 4 = 76), suggesting that teachers at this level of qualification practise vocabulary with the use of picture flashcards relatively more frequently.The frequency of use of the items is relatively balanced amongst the Bachelor qualifications, mostly around 40 (Item 1, 2 and 5 are all 42, Item 3 is 40, Item 4 is 39), and is generally at a moderate level. The frequency of use of each item by Bachelor teachers was relatively balanced, mostly around 40 (Item 1, 2 and 5 were all 42, Item 3 was 40 and Item 4 was 39), which was in the middle of the range overall, while the frequency of use by High School teachers was significantly lower than that of the former two, with the exception of Item 2 which was 28, and the other items were mostly in the range of 20 and below (Item 1 was 20, Item 3 17, Item 4 16 and Item 5 only 8). The frequency of use of Flash Cards by High School teachers was significantly lower than that of the former two, with the exception of Item 2 which was 28.

Figure 1 Teacher from Different Academic Level Teach Vocabulary to Children
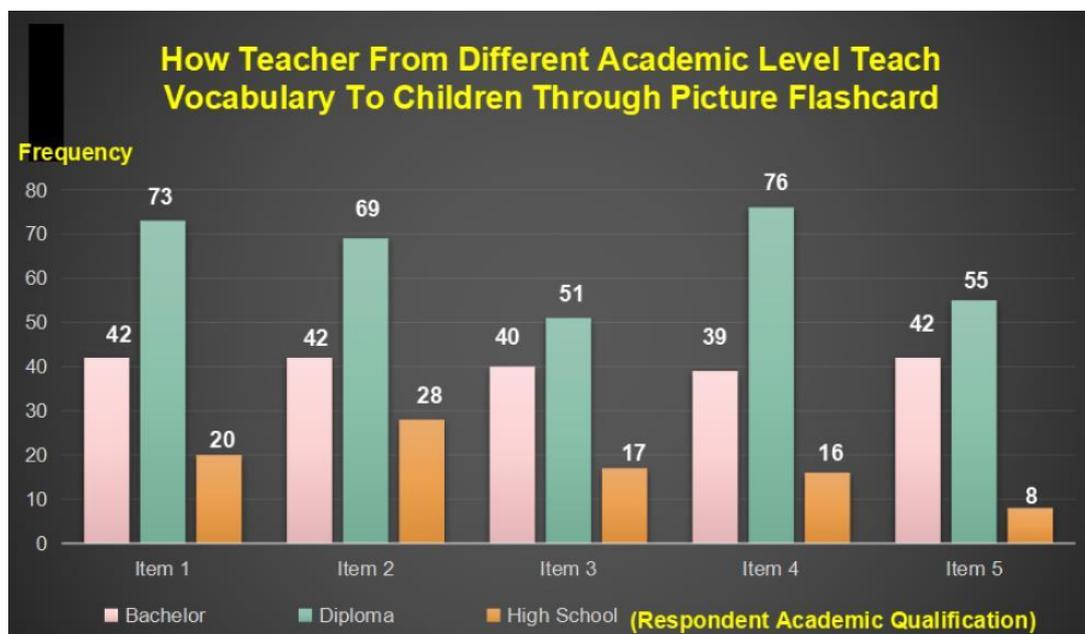
Through Picture Flashcards

Table 2 Teacher from different academic level teach vocabulary to children through picture flashcards

No.	Item	n (%)		
		Bachelor	Diploma	High School
1	Introducing new vocabulary with good pronunciation.	42(28)	73(48.7)	20(13.3)
2	Teacher gives exercises to children in order to practice vocabulary.	42(28)	69(46)	28(18.7)
3	The words in picture flashcards is presented through acting.	40(26.7)	51(34)	17(11.3)
4	Teacher explain each word and ask the children to repeat.	39(26)	76(50.8)	16(10.7)
5	Teacher gives Spelling-Bee based on picture flashcard.	42(28)	55(36.7)	8(5.3)

4.3 The interesting of the picture flashcards that teachers use

Table 1 shows the interesting situation of teachers' use of picture flashcards. The results show that only 21.3% (32) of teachers downloaded the picture flashcards from an app, while 78.7% (128) did not obtain them in this way, suggesting that the picture flashcards used by teachers did not mainly come from app downloads, and that homemade or other sources were more prevalent. 28% (42) of the flashcards were a mixture of pictures and text, while 72% (108) were not. 72% (108) of Flash Cards were not, indicating that most Flash Cards were not a combination of pictures and text, and that single pictures or single text were more common. As many as 96.7% (145) of the Flash Cards contained multiple facts on a single card, while only 3.3% (5) did not, indicating that the picture Flash Cards used by teachers were generally designed to carry multiple information on a single card, in pursuit of knowledge density. 74.7% (112) of the Flash Cards had double-sided comments, while 25.3% (38) did not, reflecting that more than 70% of the Flash Cards had double-sided comments, reflecting that more than 70% of the cards had double-sided comments. 74.7% (112) of the cards had double-sided annotations, while 25.3% (38) did not, reflecting that more than 70% of the cards had double-sided annotations, which is a certain consideration for information supplementation and teaching aid.

Figure 2 shows the interestingness of the picture drawing cards used by teachers. Item 3 has the longest green bar, close to 150, and the shortest red bar, which is the one with the most 'interesting' feedback and the least 'uninteresting' feedback among all the items, indicating that the corresponding picture drawing card of this item is the most recognised for its interestingness. Item 5 has a long green column (close to 140) and a short red column, with 'Interesting' feedback dominating and the fun factor highly recognised. Item 4 has a considerable length of green column (over 110) and a red column of about 30, with 'Interesting' being the dominant rating. 'Item 4's green bar is quite long (over 110), the red bar is about 30, and "interesting" is the dominant rating, but compared to Items 3 and 5, 'uninteresting" feedback is a bit more prevalent. 'Item 1, with the longest red bar (over 120) and the largest green bar (about 30), has the largest proportion of 'uninteresting" feedback and is the most questionable item in terms of fun. For most items, the number of responses that the Flash Cards were 'fun (YES, green bar)' was much higher than 'not fun (NO, red bar)', suggesting that the Flash Cards used by teachers were recognised as being fun overall, although there were variations across items.

Table 3 Interesting Situation of Picture Flash Cards Used by Teachers

No.	Item	n (%)	
1	Is the picture flashcard made by your own?	Yes	No
2	Is the picture flashcard downloaded from apps?	32(21.3)	128(78.7)
3	s the picture flashcards mixed with picture and words?	42(28)	108(72)
4	Is there multiple facts on one card?	145(96.7)	5(3.3)
5	Is your picture flashcards with notes on both sides?	112(74.7)	38(25.3)

Figure 2 The Interesting of The Picture Flashcard That Teacher Use

4.4 Picture Flashcard Is An Easy Teaching Method

Table 4 shows that picture memory cards are a simple teaching method, and the percentage of 'Agree + Strongly Agree' is higher than that of 'Disagree + Strongly Disagree' for all the items, which indicates that teachers generally agree that picture flashcards are a simple and effective teaching method, although the level of agreement varies across dimensions. This indicates that teachers generally agree that picture flashcards are a simple and effective teaching method, although there are differences in different dimensions.

In terms of frequency of use (Item 1), more than 70% of teachers (52.7% agree + 20% strongly agree) agreed that the cards should be used at least three times a week, with a mean value of 3.78 close to the agreement range, but 10.6% (3.3% strongly disagree + 7.3% disagree) disagreed, with a standard deviation of 0.959, reflecting some disagreement on the frequency of use. The standard deviation is 0.959, reflecting the fact that teachers are somewhat divided on the frequency of use, although the overall frequency of use is relatively high.

In terms of children's recognition (Item 2), over 87% of teachers (51.3% agree + 36% strongly agree) felt that children could easily recognise the pictures, with a mean value of 4.14 being closer to strongly agree, and only 6% of teachers (2.7% strongly disagree + 3.3% disagree)

disagreed, which is one of the most highly recognised items, suggesting that the visual design of the Picture Memory Cards is easily accepted by children.

For active recall (Item 3), more than 76% of teachers (54% agreed + 22% strongly agreed) thought that it helped children's active recall, with a mean value of 3.88, and only 6% of teachers (3.3% strongly disagreed + 2.7% disagreed) disagreed, indicating that picture flash cards were more positively recognised by more teachers in facilitating children's active knowledge extraction.

In terms of interactivity (Item 4), more than 88% of teachers (38% agreed + 50.7% strongly agreed) recognised the Flash Card as an interactive teaching and learning tool, with a mean value of 4.29 close to strongly agreeing, and only 6% (4% strongly disagreed + 2% disagreed) disagreeing, highlighting the role of the Flash Card in classroom interaction and its value as an interactive tool in the eyes of teachers.

In terms of the Peer Quiz Effect (Item 5), more than 65% of teachers (55.3% agreed + 10% strongly agreed) felt that asking questions to each other and their peers improved recall, with a mean value of 3.62, while 8.7% of teachers (4% strongly disagreed + 4.7% disagreed) disagreed, with a standard deviation of 0.87, indicating that the effect of this strategy is somewhat controversial, although most teachers recognised its effect on recall. However, most teachers recognised its facilitating effect on recall. Thus, teachers generally recognised the pedagogical value of Flash Cards, particularly in terms of recognition and interactivity, but there was some disagreement about the frequency of use and the effectiveness of Peer Quiz.

Table 4 Picture Flashcards Is An Easy-Teaching Method

No.	Items	n (%) Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Picture flashcards is used at least 3 times a week in classroom.	5(3.3)	11(7.3)	25 (16.7)	79(52.7)	30(20)
2	Children can identify the picture on the flashcards easily.	4(2.7)	5(3.3)	10(6.7)	77(51.3)	54(36)
3	Picture flashcards help child engage in active recall.	5(3.3)	4(2.7)	27(18)	81(54)	33(22)
4	Picture flashcards is an interactive teaching-learning tool.	6(4)	3(2)	8(5.3)	57(38)	76(50.7)
5	Quizzing the child with a friend makes them recall better.	6(4)	7(4.7)	39(26)	83(55.3)	15(10)

Table 5 Picture Flashcard Is An Easy Teaching Method

No.	Items	Mean	Std.Deviation

1	Picture flashcards is used at least 3 times a week in classroom.	3.78	0.959
2	Children can identify the picture on the flashcards easily.	4.14	0.88
3	Picture flashcards help child engage in active recall.	3.88	0.89
4	Picture flashcards is an interactive teaching-learning tool.	4.29	0.95
5	Quizzing the child with a friend makes them recall better.	3.62	0.87

5.0 DISCUSSION

This study shows that there is a significant difference between teachers' strategies of using picture flash cards to teach vocabulary with different academic qualifications. 100% (42) of the teachers with bachelor's degree used multimodal teaching strategies, activating multiple intelligences through 'picture + physical performance + interactive competition' and demonstrating a deep understanding of the theory of multiple intelligences. The teachers with Diploma degree had the highest level of practical involvement, with 50.8% (76) explaining and repeating vocabulary, 46% (69) designed exercises, but were not as strategy rich as undergraduate teachers. Teachers with high school diploma were the least frequent users, with only 18.7% (28) conducting vocabulary exercises and 5.3% (8) organising spelling competitions or due to professional knowledge and resource constraints. a study by Akramy et al. (2022) confirms that teachers' attitudes towards effective vocabulary teaching techniques are positive, but that factors such as gender, and age may affect their use. The results of the present study echoed this by showing that the factor of educational qualification significantly influences teachers' choice and implementation of picture flash card teaching strategies.

The second finding of this study shows that the interesting design of picture memory cards is characterised by 'priority of content density and lack of innovation in form'. 96.7% of the cards contain multiple knowledge points, 74.7% have double-sided notes, and 'sequential pictures' and 'double-sided notes' are the most popular. 96.7% of the cards contain multiple knowledge points, 74.7% have double-sided notes, 'sequential pictures' and 'double-sided notes' are the most popular, and more than 90% of the teachers think they can prolong children's concentration time. The low reliance on APPs for accessing the cards and the lack of mainstream mixed-text and graphic formats reflect the lack of technology integration and visual innovation, and the interestingness of the homemade cards relies on the content rather than the format. Yowaboot & Sukying (2022) and Liando et al. (2022) demonstrated that picture flash cards are effective, interesting, and promote vocabulary learning, which is in line with the findings of the present study.

The third finding of this study indicates that preschool teachers generally view picture memory cards as an interactive and simple teaching tool. Young children's picture recognition was high, and more than 88% of teachers recognised that they activated classroom interactions through group competitions, and that the 'retrieve-feedback' closed loop facilitated active recall. However, there are differences in the frequency of use and the effectiveness of peer quizzing, which need to be adjusted to take into account the cognition of young children. Ayu Aninndya (2023) and Xodabande et al. (2023) confirmed the effectiveness of the picture cards for vocabulary learning, which supports the findings of the present study.

This study confirms the value of Multiple Intelligence Theory in guiding the design of instructional strategies. Mixed-text flashcards activated spatial and verbal intelligence

simultaneously (96.7% of teachers used them), while physical performance and group interaction were appropriate for children with kinaesthetic and interpersonal intelligence strengths, respectively. In practice, the effectiveness of picture flash cards relied on "multimodal integration" and "academic fit" - teachers with a bachelor's degree were more likely to optimise the design of the tool through theoretical guidance, while teachers with other degrees were more likely to optimise the design of the tool through theoretical guidance, while teachers with other degrees were more likely to optimise the design of the tool through theoretical guidance. educated teachers need intensive strategy training to enhance their teaching effectiveness.

6.0 LIMITATION

There are some limitations to this study. The sample was geographically limited to Selangor, making it difficult to represent the educational environments, cultural backgrounds, and teacher characteristics of other regions, limiting generalisability. The effects of long-term use of picture flash cards were not tracked to determine their sustained impact on vocabulary learning and multiple intelligence development of young children. Only quantitative questionnaires were used, without qualitative data support, making it difficult to explore the teaching context, motivation and children's feedback. No comparison with other vocabulary teaching methods was made to identify its strengths and weaknesses.

7.0 RECOMMENDATION

Future research can be expanded to other parts of Malaysia and cross-country comparisons to include more early childhood teachers and young children of different ethnic and cultural backgrounds, and to increase the sample size especially for subgroups such as high school educated and ethnic minority teachers. Introduce qualitative methods such as interviews and classroom observations to gain insights into teaching decisions and young children's learning experiences. Conduct a long-term follow-up study to assess the long-term effects of picture flash cards on young children's vocabulary and cognitive abilities, and compare them with other vocabulary teaching methods, such as game-based instruction, to inform the choice of teaching tools.

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