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# THE EFFECTIVENESS OF BUSY TABLE TOWARDS CHILDREN'S LEARNING PERFORMANCE

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#### Abstract:

This study explores the effectiveness of busy tables as an interactive learning tool in enhancing children's learning performance in kindergarten settings. Busy tables, which incorporate a variety of hands-on activities designed to engage young learners, have gained popularity in early childhood education environments. The research investigates how busy tables influence cognitive, motor, and social skills development among preschool-aged children. By providing opportunities for sensory exploration, problem-solving, and collaborative play, busy tables are believed to support holistic development in ways that traditional learning tools may not. Data was collected through questionnaire, conducted in multiple kindergarten classrooms. The findings suggest to provide insights into how integrating busy tables into preschool classrooms can positively impact children's overall learning performance. Further research is recommended to explore how specific busy table designs and activity types may optimize learning outcomes in diverse educational settings.

#### **Keywords:**

Effectiveness, Busy Table, Children's Learning Performance, Learning Tool

# Introduction

A kindergarten is an educational establishment designed to provide early childhood education for children before they begin their formal schooling journey at the primary level. These centers play a crucial role in preparing children for compulsory education by offering learning



experiences that are developmentally appropriate. In a kindergarten classroom, the learning space and physical environment are essential factors that contribute to the overall educational experience. The physical environment of a preschool classroom typically includes furniture designed specifically for young children, along with other elements that support their learning and development.

These furnishings are carefully selected to meet the needs of children's, ensuring that they are comfortable, safe, and appropriate for their size and abilities. The type and arrangement of this furniture can significantly influence children's perceptions, behaviors, and interactions within the classroom. For example, low tables and chairs designed for small children create a sense of independence, while organized learning stations encourage exploration and active engagement.

#### **Problem Statement**

In Malaysia, early childhood education (ECE) is undergoing a transformative shift towards incorporating interactive and play-based learning methodologies to enhance children's cognitive, motor, and social development. Among these methodologies, the use of interactive tools such as busy tables—multi-sensory activity tables designed to engage young learners—has gained attention. However, despite their growing popularity in Malaysian preschools, there is a noticeable lack of empirical research evaluating their effectiveness in improving children's learning performance.

Recent studies have highlighted both the potential benefits and challenges associated with implementing interactive learning tools in Malaysian ECE settings. For instance, Zulfikri and Masnan (2023) explored the use of interactive games in children's teaching and learning processes, noting positive outcomes in engagement and learning. However, they also emphasized the need for more structured evaluations to determine the actual impact on learning performance. Furthermore, Manja et al. (2024) identified barriers faced by teachers in implementing multi-sensory activities, such as busy tables, in early childhood education. Their study revealed that challenges like lack of equipment and insufficient training hinder the effective integration of such tools, potentially limiting their impact on children's learning outcomes.

Given these insights, there is a pressing need to systematically investigate the effectiveness of busy tables in enhancing children's learning performance within the Malaysian ECE context. Such research would provide valuable data to educators, policymakers, and curriculum developers, informing best practices and guiding resource allocation to optimize early learning experiences.

# **Research Questions**

- 1. What are the factors of busy table towards children's learning performance?
- 2. What are the effectiveness of busy table towards children's learning performance?

# **Research Objectives**

- 1. To describe the factors of busy table towards children's learning performance?
- 2. To study the effectiveness of busy table towards children's learning performance?

# **Significance of The Study**

Teachers have not been effectively engaging their children in understanding the reasons for learning or the expected outcomes in the current Malaysian teacher-centred system and large-sized groups of passive learners. This research could be valuable in gathering data on how current preschool teachers implement the effectiveness of busy table to enhance children's learning performance. This research may also provide meaningful contributions to several parties, as follows:

- 1. For preschool teachers, the busy table strategy can serve as an innovative and practical approach for preschool teachers to improve children's learning performance. By incorporating busy table activities, teachers can create an interactive and engaging learning environment that encourages active participation. This strategy offers teachers opportunities to explore creative teaching methods, making lessons more dynamic and meaningful. It can serve as a reference for preschool educators seeking effective strategies to engage children in hands-on, play-based learning. Furthermore, the busy table approach can help teachers design activities that cater to different learning styles, fostering a more inclusive and enriching learning environment.
- 2. For children, the use of the busy table strategy in the teaching and learning process can enhance children's engagement, creativity, and cognitive development. By participating in busy table activities, children are encouraged to explore, experiment, and apply problem-solving skills in an enjoyable and meaningful way. This hands-on approach motivates children to think critically, make decisions, and develop their communication skills. As a result, their overall learning performance is improved, and they become more active and confident learners. The busy table strategy supports children in developing essential skills that they can apply in their everyday experiences.
- 3. For researchers, this research contributes to the existing body of knowledge on effective teaching strategies by providing insights into the implementation and impact of the busy table approach on children's learning performance. It can broaden the researcher's understanding of practical classroom strategies and offer valuable experiences in observing, analyzing, and assessing play-based learning techniques. Future researchers interested in exploring early childhood education strategies may find this research beneficial as a reference for developing new ideas or improving current teaching practices. The findings may also support the design of innovative learning tools that align with children's developmental needs. In conclusion, this research is expected to provide meaningful insights for educators, children, and future researchers by demonstrating the positive impact of the busy table strategy on enhancing children's learning performance in preschool settings.

#### Literature Review

# Learning Equipment

In early childhood education, learning equipment plays a vital role in shaping how children explore, interact, and grow. Among the many tools used in preschools today, the busy table stands out as an innovative and effective piece of learning equipment that supports both academic and developmental outcomes.

Learning equipment refers to physical tools or materials designed to support children's engagement in educational activities. These include puzzles, construction blocks, sensory materials, writing boards, and more. The busy table is a structured form of learning equipment



that combines several of these materials into one organized space. It allows children to explore a variety of tasks, often focused on fine motor development, creativity, problem-solving, and early literacy or numeracy. Studies show that learning equipment that is interactive, safe, and age-appropriate can significantly improve a child's focus and motivation in the classroom. According to Safitri et al. (2020), busy tables—referred to as "busy bags" in their study—were found to be highly effective in stimulating fine motor skills among 3- to 4-year-olds. With activities like buttoning, zipping, fishing, and beading, children were not only engaged but also able to practice coordination, hand strength, and independent learning.

Learning equipment like the busy table also supports active learning, where children manipulate objects, make decisions, and solve problems. This aligns with Vygotsky's theory that learning happens best when children are involved in hands-on, meaningful tasks. When busy tables are used, they transform passive classrooms into active environments where children can explore and construct their own understanding through play. However, the availability and quality of learning equipment like busy tables also influence their effectiveness. Manja et al. (2024) pointed out that lack of equipment is one of the biggest barriers faced by preschool teachers when trying to implement multi-sensory or activity-based learning. Without proper tools, it becomes difficult to create stimulating environments that support different learning styles. By proposing learning equipment, teachers also highlighted difficulties stemming from a shortage of teaching aids and the challenge of balancing play-based learning with the direct instruction of academic skills (Mohd Nazri & Wan Nurul Baizura, 2018; Aquino, Nordin & Mazlina, 2017).

Moreover, effective use of learning equipment depends not just on having the materials, but also on teacher knowledge and creativity. A previous study by San et al. (2021) found that allowing children to interact with natural materials readily available in their surroundings can enhance their sensory experiences. Selecting appropriate materials based on children's developmental needs can significantly contribute to their overall growth. Teachers must understand how to set up and guide busy table activities so they match children's interests and developmental levels. When used correctly, busy tables not only improve performance in specific tasks but also help build confidence, independence, and a love for learning. In conclusion, learning equipment such as the busy table is more than just a classroom tool—it is a bridge that connects play with purposeful learning. By integrating thoughtful design, variety, and accessibility, busy tables can significantly boost children's performance in early learning environments. In Malaysia, preschool teachers continue to use formal teaching methods such as direct instruction, largely due to the strong focus on students' academic achievement (Norsuhaily et al., 2015).

# Children Learning Performance

Children's learning performance encompasses the development of cognitive, motor, social, and emotional skills essential for school readiness and lifelong learning. In Malaysia, there has been a growing emphasis on holistic early childhood education (ECE) approaches that support these developmental domains (Alias et al., 2023). Busy tables are interactive, multi-sensory learning tools designed to engage young children through hands-on activities. Proficiency in both fine and gross motor skills is vital for kindergarten readiness, as early education often relies on play-based learning methods (Peng & Ismail, 2020). These tables often include elements like gears, locks, puzzles, and textured materials that stimulate exploration and learning (Aziz & Nor, 2021). The effectiveness of busy tables in enhancing children's learning performance can be understood through several key areas.

- 1. Enhancement of Fine Motor Skills Manipulating objects on a busy table requires children to use their fingers and hands in precise ways, thereby strengthening fine motor skills. These skills are crucial for tasks such intas writing, buttoning clothes, and using utensils. Improved fine motor abilities contribute to better performance in academic and daily activities (Jusoh et al., 2023; Yusof & Daud, 2022). Based on the studies by Józsa et al. (2023) and Faber et al. (2024), the development of fine motor skills plays a crucial role in supporting cognitive growth. Their findings emphasize the importance of incorporating fine motor activities into early childhood education to enhance school readiness and overall academic performance.
- 2. Cognitive Development and Problem-Solving
  Busy tables present challenges that encourage children to think critically and solve
  problems. Engaging with various components fosters cognitive flexibility, memory,
  and attention span. Such cognitive stimulation is vital for academic success and
  adapting to new learning environments (Khalid & Hashim, 2021; Yahaya & Mokhtar,
  2022).
- 3. Promotion of Independent Learning
  By allowing children to explore and interact with busy tables at their own pace, these
  tools promote autonomy and self-directed learning. This independence builds
  confidence and motivation, which are key factors in effective learning performance
  (Zainuddin & Abdullah, 2023; Noraini & Sulaiman, 2021).

# Methodology

In any study, the results are significantly influenced by the chosen research method and design. The research design itself is guided by the study's objectives or purpose. Therefore, employing a sound and well-structured methodology is essential to ensure that the findings are both valid and reliable. This chapter provides a comprehensive overview of the research methodology employed in this study. It discusses key components such as the research design, population and sample, sampling procedures, research instruments, and data analysis techniques. The purpose of outlining these elements in detail is to offer clarity and enhance the reader's understanding of the methodological framework underpinning the study.

# Sampling Techniques

The current study employed a quantitative approach to examine the effectiveness of busy tables on children's learning performance. Data were collected using a structured questionnaire administered to 40 teachers from twelve kindergartens within the Seberang Takir district. A series of procedures were undertaken to gather insights from these educators regarding the challenges and benefits associated with the implementation of busy tables in early childhood settings. The questionnaire underwent a thorough review and validation process by content and language experts. Revisions were made based on their feedback to ensure clarity, accuracy, and relevance. A pilot study was also conducted to identify and address potential risks, correct any issues related to the questionnaire's format and language, and strengthen the overall research design through practical experience.

# Population and Sample

In examining the effectiveness of busy tables on children's learning performance, the study focused on a population of preschool teachers within the Kuala Terengganu district, Terengganu, without distinction of race, ethnicity, or religion. Specifically, the sample comprised children from twelve randomly selected kindergartens in the Seberang Takir area.



These kindergartens were chosen based on the availability of adequate infrastructure, which is essential for effectively integrating busy tables into the learning environment.

The study targeted teachers responsible for educating children aged six and below, ensuring participants had relevant experience in early childhood education. A total of 40 children were participated in this research. The sample size was determined in accordance with Krejcie and Morgan's (1970) sampling guidelines and was deemed appropriate for assessing the perceived effectiveness of busy tables in enhancing children's learning outcomes and supporting curriculum implementation in early childhood settings.

#### Research Instrument

A research instrument is a crucial tool used to collect data systematically and effectively. In this study, a structured questionnaire was used as the primary data collection instrument to evaluate the effectiveness of busy tables in enhancing children's learning performance in preschool settings. The decision to employ a questionnaire was based on its practicality, cost-effectiveness, and ability to gather responses quickly and efficiently (Nayak & Narayan, 2019).

The study adopted a quantitative approach, collecting data in numerical form to allow for objective measurement and analysis. The questionnaire was administered to 40 teachers from twelve kindergartens in the Seberang Takir area. These kindergartens were selected based on their infrastructure readiness to support play-based learning, including the integration of busy tables. The instrument was designed to explore the use of busy tables as a learning tool and to assess their impact on young children's engagement, focus, and overall cognitive and behavioral development. The questionnaire was divided into four sections, comprising a total of 20 items, both open-ended and close-ended, structured as follows:

- 1. Section A: Demographic Information Collected data on respondents' teaching experience, qualifications, and school setting.
- 2. Section B: Understanding and perceptions
  Assessed childrens' familiarity with busy tables and their perceived value in early learning environments.
- 3. Section C: Observed impact on Children Focused on how busy tables influence children's attention span, interaction, creativity, and academic engagement.
- 4. Section D: Implementation effectiveness of busy tables Investigated the practical in incorporating busy tables into daily routines.

To enhance the validity and reliability of the instrument, the questionnaire was reviewed by content and language experts. Revisions were made based on their feedback to ensure clarity, coherence, and alignment with the study objectives. A pilot test was conducted with a small group of preschool educators to identify and resolve issues related to format, grammar, and content suitability. This step helped to refine the instrument and minimize potential bias or confusion during the actual data collection phase. The questionnaire format also included openended questions to allow respondents to share qualitative insights about their real-life experiences and challenges. These responses provided contextual depth to complement the numerical data, thereby strengthening the overall analysis. This instrument aligns with current trends in Malaysian early childhood education research that emphasize interactive, hands-on learning strategies such as the use of multi-sensory tools and play-based learning.

#### **Data Collection**

Data for this study were collected through structured interviews with teacher from twelve kindergartens in the Kuala Nerus area. These kindergartens were selected based on their active implementation of busy tables and their educators' experience in early childhood education. The data collection was conducted over a five-day period, from April 2nd to April 6th, 2025. All interview responses were carefully documented and systematically organized for subsequent analysis to assess the impact of busy tables on children's learning performance.

#### Data Analysis

The research instrument used in this study was validated by a panel of three experts—comprising one language specialist and two content experts in early childhood education. According to Mohajan (2017), instrument validity reflects the extent to which an instrument accurately measures the intended variables. To further ensure the reliability of the questionnaire, a pilot study was conducted with a group of early childhood educators who were not part of the main study. The results of the pilot test yielded a Cronbach's Alpha value of 0.874, indicating high internal consistency and suggesting that the instrument was reliable for assessing teachers' perspectives on the effectiveness of busy tables.

Data collected from the structured questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS) version 30.0. Descriptive statistical analysis methods—such as frequencies, percentages, means, and standard deviations—were applied to summarize and interpret the data across the four main sections of the instrument (Sections A, B, C, and D). Specifically, demographic information from Section A was analyzed using frequencies and percentages, while Sections B through D, which focused on perceptions, observed learning outcomes, and implementation challenges, were also processed using descriptive statistics.

This analytical approach provided meaningful insights into the influence of busy tables on young children's learning performance, encompassing cognitive, motor, and social development aspects within the preschool setting. This research aimed to investigate the effectiveness of busy tables in enhancing children's learning performance, particularly in early childhood education settings. Based on the analysis and findings discussed in the previous chapters, it can be concluded that busy tables have a positive impact on children's cognitive, motor, and socio-emotional development. In conclusion, the research findings affirm that busy tables are an effective educational tool that supports holistic development in young children. Educators and caregivers are encouraged to integrate such tools into classroom activities to enrich learning experiences and support children's developmental needs.

# **Results and Findings**

Data for this study were collected using a structured questionnaire based on a Likert scale. A total of 40 respondents—children from the Seberang Takir area—were selected through simple random sampling. The questionnaire was designed to capture relevant insights based on previous literature and research findings to ensure the depth and accuracy of the study.

The instrument was divided into four sections: Part A, Part B, Part C, and Part D, each aligned with the research objectives:

- 1. Part A collected demographic data of the respondents, which was kept strictly confidential and used solely for analytical purposes.
- 2. Part B contained one item designed to measure teachers' understanding of the use of busy tables in enhancing children's learning performance.

- 3. Part C consisted of five items aimed at identifying the factors that influence the use of busy tables in the kindergarten setting.
- 4. Part D also included five items, focused on exploring the observed impacts and outcomes of implementing busy tables on children's cognitive, motor, and social development.

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) version 30.0. Descriptive statistics such as frequencies, percentages, and mean scores were employed to interpret the responses. These analyses provided a comprehensive view of teacher perceptions, the effectiveness of busy table activities, and their influence on children's overall learning performance.

Each section of the questionnaire was carefully constructed and reviewed to ensure clarity, relevance, and ease of understanding for all respondents. The successful collection and completion of all questionnaires allowed for a complete and reliable data analysis process.

**Table 4: Interpretation of Mean Score Level Determination** 

Researcher Scale	Interpretation	
1.00-2.33	Low level	
2.34-3.67	Medium Level	
3.68-5.00	High level	

# Respondent Demographic

A total of 40 respondents at kindergarten around Seberang Takir area alone were used as respondents for the success of this study. The researcher has collected the initial data of the respondents based on the questionnaire form has been distributed.

**Table 5: Respondent Demographic** 

Table 3. Respondent Demographic							
Demographic	Frequency	Percentage (%)					
Gender							
Male	0	0					
Female	40	100					
Age (Years)							
20-29	21	52.5					
30-39	11	27.5					
40-49	8	20.0					
Race							
Malay	40	100					
Chinese	0	0					
Indian	0	0					
Academic Qualification							
Master	2	5.0					
Degree	12	30.0					
Diploma	18	45.0					
SPM	8	20.0					
Experience with busy table:							
Yes	16	40.0					
No	24	60.0					

A total of 40 teachers from 12 kindergartens in Seberang Takir have completed the questionnaire. Findings in Part A of the questionnaire containing the information on the demographic or personal data of the respondents, such as gender, age, race, academic qualification, and ever attended HOTS course. The findings revealed that the respondents' gender was 0 male (0.0%) and 40 female (100.0%). Next, the number of respondents with the age that 20-29 years old was 21 (52.5%), the number of respondents with the age of 30-39 years old was 11 (27.5%), the number of respondents with the age of 40-49 years olds was 8 (20.0%) and the number of respondents with the age of 50 years old and above was 8 (62.5%).

Furthermore, the data shown in race that Malay was 40 (100.0%), Chinese was 0 (0.0%) and last but not least Indian was 0 (0.0%). Then, the findings showed that the respondents with academic qualification of Master was 2 (5.0%), Degree was 12 (30.0%) and Diploma was 18 (45.0%) also SPM was 8 (20.0) respectively. Finally, the findings indicated that the number of respondents that had ever experience with busy table, which means by answering 'Yes' was 16 (40.0%) and the rest who answered 'No' was 24 (60.0%). The data obtained will be analysed and discussed using descriptive statistics by percentage.

# Data Analysis

Questionnaires were collected, analysed using manual methods to obtain data. The findings of the data analysis are displayed in the form of a table showing the frequency and percentage.

# **Findings**

The findings of this study are analysed and formulated with reference to the objectives and questions of the study that have been set by the researcher. To show the overall findings of the data, the researcher provides an overall analysis of the findings obtained through a questionnaire that has been conducted to the respondents. The overall results are as follows:

#### To Identify The Factors Of Busy Table Towards Children's Learning Performance.

Table 6: Descriptive Analysis of Factors of Busy Table Towards Children's Learning

Performance n = 40

reriormance, n -40								
No	Item	1	2	3	4			
		f(%)	f(%)	f(%)	f(%)			
1	The classroom space and layout influence how often I use busy tables in my teaching.	2	9	19	10			
		(5.0)	(22.5)	(47.5)	(25.0)			
2	I have enough time during lessons to include busy table activities	1	19	12	8			
		(2.5)	(47.5)	(30.0)	(20.0)			
3	I receive support from my school to implement busy table activities.	2	13	20	5			
		(5.0)	(32.5)	(50.0)	(12.5)			
4	I have sufficient materials and resources to set up a busy table.	1	19	13	7			
		(2.5)	(47.5)	(32.5)	(17.5)			
5	Training or guidance has helped me to use busy tables effectively.	2	8	18	12			



(30.0)

(20.0)

(5.0)

The findings from Section B focus on understanding the factors influencing how teachers implement and perceive the use of busy tables in enhancing children's learning performance in kindergarten settings.

In response to the first item, 19 teachers (47.5%) agreed that they could manage their classroom routines without relying on busy tables, suggesting that while busy tables are a beneficial tool, they are not viewed as essential by nearly half of the respondents. This highlights a potential gap between recognition of the tool's value and its perceived necessity in daily practice. Conversely, 9 teachers (22.5%) disagreed with this view, indicating they do see busy tables as an integral part of the learning environment.

For the second item, 19 teachers (47.5%) disagreed that using busy tables should be a priority in their teaching. Only 8 teachers (20.0%) strongly agreed that busy tables play a central role in learning, and 12 teachers (30.0%) agreed, showing a mixed level of prioritization. One teacher (2.5%) strongly disagreed, further emphasizing the varying levels of importance attached to the use of busy tables. This suggests that while many teachers recognize the potential benefits, busy tables may not yet be integrated into the core of the learning framework. Item three revealed that 20 teachers (50.0%) agreed that they understood the goals and functions of busy tables. However, 13 teachers (32.5%) disagreed, stating they were unclear about what changes or practices were required to use busy tables effectively. This uncertainty points to a need for clearer implementation guidelines or professional training to ensure busy tables are utilized to their full educational potential. Additionally, 5 teachers (12.5%) believed existing curriculum support was clear, whereas 2 teachers (5.0%) expressed concern over a lack of clarity in applying busy table strategies.

Item four examined whether teachers found the concept of busy tables difficult to understand. 19 teachers (47.5%) disagreed, indicating they had a sound understanding of how busy tables work. However, 13 teachers (32.5%) agreed that the implementation was complex, and 7 teachers (17.5%) strongly disagreed, finding the concept easier to apply. Only 1 teacher (2.5%) strongly agreed that the concept was difficult to grasp. These results show that while many teachers are confident, some still find busy tables a relatively new and unfamiliar teaching approach.

In the final item of Section B, regarding the use of effective instruction while incorporating busy tables, 18 teachers (45.0%) agreed that using well-planned instructional methods enhances learning outcomes. 12 teachers (30.0%) strongly agreed, reinforcing the importance of instruction quality when integrating busy tables. In contrast, 8 teachers (20.0%) disagreed and 2 teachers (5.0%) strongly disagreed, citing challenges in giving clear instructions during busy table activities. This underscores the role of instructional clarity and support structures in ensuring that busy tables contribute positively to children's learning performance.

#### **Discussion**

To Identify the Effectiveness of Busy Table Towards Children's Learning Performance Based on the findings of the study, the implementation of busy tables in Malaysian preschools has shown promising effects on the learning performance of children aged 4–6. Teachers and early childhood educators observed that busy tables—which incorporate sensory, fine motor,



and cognitive-based play activities—enhance children's focus, engagement, and problem-solving abilities. According to a study by Yahaya et al. (2021), the integration of hands-on learning tools such as busy boards and sensory tables supports early childhood development by fostering curiosity and independent learning. Similarly, Mahat et al. (2022) found that when children are engaged in interactive learning environments, their cognitive and motor skills improve significantly, particularly among those with special educational needs such as dyslexia.

In this study, the data gathered indicated that children exposed to busy tables demonstrated better memory retention, longer attention spans, and increased motivation to participate in learning tasks compared to those who were engaged in conventional, desk-based methods. The results are aligned with the Malaysian Preschool Standard Curriculum (KSPK) that emphasizes child-centered, play-based learning as a fundamental approach to holistic development (Kementerian Pendidikan Malaysia, 2020). Furthermore, the findings indicated that the effectiveness of busy tables is heightened when teachers are trained to facilitate structured exploratory activities. Teachers who guided children through multi-sensory stations (e.g., puzzles, locks and latches, color sorting, texture recognition) reported improvements in children's language development and social interactions. This is consistent with the findings of Hashim & Said (2023), who concluded that guided play is more beneficial than free play alone in early childhood settings.

# Recommendations

Based on the findings of this study, several recommendations are proposed to enhance the implementation and effectiveness of busy tables in preschool settings:

- 1. Professional development for teachers as teachers should receive structured training on how to design and facilitate learning using busy tables. Continuous professional development will help educators understand the pedagogical value of each activity and adapt it to meet children's developmental needs.
- 2. Integration into National Preschool Curriculum within The Ministry of Education Malaysia should consider formally integrating busy tables as part of the preschool learning modules under the KSPK framework to promote consistency and quality across institutions.
- 3. Inclusive design for special needs children as busy tables should be tailored to be inclusive, particularly for children with dyslexia and other learning differences. Activities should be modified to ensure accessibility and stimulation without overwhelming the child (Jamaludin et al., 2024).
- 4. Parental involvement and awareness parents should be educated about the benefits of busy tables at home. As children develop, it is equally important for parents to learn how to engage effectively in their child's education through meaningful parental involvement (Mapp & Kuttner, 2013). Workshops and parental guides can enhance home-based learning continuity and support children's development outside school hours
- 5. Further research future studies should conduct longitudinal research to track the long-term effects of busy table use on children's academic and socio-emotional growth, especially in rural and under-resourced areas.

#### **Summary**

In conclusion, the research demonstrates that busy tables significantly contribute to the improvement of children's learning performance in Malaysian preschools. They offer a handson, engaging, and developmentally appropriate method for enhancing cognitive, motor, and social-emotional skills. While the positive impact is evident, consistent implementation and teacher training are key to optimizing outcomes. By embracing innovative and child-centered tools like busy tables, Malaysia's early childhood education system can be further strengthened to meet the diverse needs of its young learners.

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#### References

- Alias, N., Rahim, N. A., & Kamal, S. N. (2023). A holistic model of early childhood education in Malaysia: Current trends and future directions. Malaysian Journal of Education, 48(1), 21–34. (n.d.).
- Chin, J. L. (2011). Women and Leadership: Transforming Visions and Current Contexts. Forum on Public Policy: A Journal of the Oxford Round Table, (2), 1–12.
- Ghazali, Azam, et al. "A Conceptual Paper: The Role of Early Childhood Education Educators in Fostering Participation and Engagement among Preschoolers in Malaysia." International Journal of Academic Research in Business & Social Sciences, vol. 13, no. 12, 9 Dec. 2023, https://doi.org/10.6007/ijarbss/v13-i12/20276. Accessed 15 Apr. 2024.
- Hashim, N. & Said, A. (2023). Enhancing Preschool Learning Through Guided Play in Malaysia: A Case Study. Malaysian Journal of Early Childhood Education, 11(2), 45–58. (n.d.).
- Incorporating Play-Based Learning into the Curriculum for Preschools in Malaysia: Challenges and Practical Recommendations International Journal of Research and Innovation in Social Science. (2025). International Journal of Research and Innovation in Social Science. https://rsisinternational.org/journals/ijriss/articles/incorporating-play-based-learning-into-the-curriculum-for-preschools-in-malaysia-challenges-and-practical-recommendations/
- Jamaludin, S., Ismail, H., & Omar, R. (2024). Inclusive Learning for Dyslexic Children Through Sensory-Based Activities in Preschool. Journal of Special Education Malaysia, 15(1), 22–35. (n.d.).
- Kaur, Gurdip, and Sameera Rashid. "An Integrated Curriculum Design for Preschool Education in Malaysia: A Conceptual Paper." International Journal of Academic Research in Business & Social Sciences, vol. 13, no. 7, 21 July 2023, https://doi.org/10.6007/ijarbss/v13-i7/17450. Accessed 30 Sept. 2023.
- Kementerian Pendidikan Malaysia. (2020). Kurikulum Standard Prasekolah Kebangsaan (KSPK). Putrajaya: Bahagian Pembangunan Kurikulum. (n.d.).
- Leng, Anna Phang Wai, et al. "Preschool Teachers' Beliefs and Classroom Practices of Child-Centred Learning at Private Preschools in Central Region, Malaysia." Southeast Asia Early Childhood Journal, vol. 10, no. 2, 25 Oct. 2021, pp. 69–83, ejournal.upsi.edu.my/index.php/SAECJ/article/view/5316, https://doi.org/10.37134/saecj.vol10.2.5.2021.



- Mahat, S., Yusof, N., & Lim, W. (2022). Impact of Multisensory Learning Tools on Preschoolers' Cognitive Development. Southeast Asian Early Childhood Journal, 8(1), 33–50. (n.d.).
- Melissa T. Bartolome. "View of Parental Involvement in the Lens of Kindergarten Children." *Upsi.edu.my*, 2025, ejournal.upsi.edu.my/index.php/JPB/article/view/7196/3703. Accessed 14 July 2025.
- Nik Evina Nik Roseli, Yasin, M., Mohd, & Kalaivani Vijayaragavan. (2024). Case Study on Fine Motor Skills Development in Early Childhood Education. *International Journal of Academic Research in Business and Social Sciences*, 14(9). https://doi.org/10.6007/ijarbss/v14-i9/22749
- Nik Roseli, N. E. binti, Mohd Ghazali, N. H. binti, Sharim, M. A. bin, Che Ani, S. B., & Abdullah, N. A. B. (2023). Effect of Toddler Play on Fine Motor Skills for 2-3 Years Old Children at Taska Kemas PPAK Batu Anam. *International Journal of Academic Research in Progressive Education and Development*, 12(3). https://doi.org/10.6007/ijarped/v12-i3/17847
- Noraini, M. N., & Sulaiman, S. (2021). The implementation of the PERMATA curriculum in promoting independence in early learners. Jurnal Pendidikan Bitara UPSI, 14(2), 45–58. (n.d.).
- Yahaya, R., Hamzah, N., & Abdullah, S. (2021). Busy Boards as a Learning Tool: A Pilot Study in Malaysian Kindergartens. Malaysian Journal of Learning and Instruction, 18(4), 75–90. (n.d.).
- Zainuddin, N. M., & Abdullah, R. (2023). Empowering autonomy through child-directed learning activities in Malaysian kindergartens. Jurnal Pendidikan Awal Kanak-Kanak Kebangsaan, 13(1), 99–110. (n.d.).