

Digital Entrepreneurship Education Model for B40 Group Kindergarten

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Abstract:

The objectives of this study are to (i) Analyze the needs in the construction of the Digital Entrepreneurship Education Model for B40 Group Kindergarten Children based on teachers' perceptions, (ii) Design the Digital Entrepreneurship Education Model for B40 Group Kindergarten Children based on expert consensus, (iii) Validate the usability of the Digital Entrepreneurship Education Model for B40 Group Kindergarten Children based on teachers' views. This model will be developed based on three phases of Design and Develop Research (DDR). The first phase, which is the analysis of the content needs of the model to be built, involves 80 kindergarten teachers using a questionnaire. The second phase is to design the model using the Interpretive Structural Modelling (ISM) method based on the decisions of 10 expert panellists. The third phase is to validate the usability of the model using the fuzzy Delphi method involving 40 kindergarten teachers. The results of this study can assist educators and entrepreneurs in delivering entrepreneurship knowledge based on the development of the Digital Entrepreneurship Education Model for Kindergarten Children in a more engaging and effective manner. In addition, the implementation of this module can raise awareness among parents, the community, and stakeholders about the needs of this generation in ensuring balanced economic well-being based on the National Transformation 2050 concept.

1 INTRODUCTION

Based on the Covid-19 pandemic situation, UNESCO launched the Sustainable Development Goal 4 program in 2020 through Education 2030, focusing on educational development starting from early childhood, especially for the poor, towards the need for survival. Although Malaysia has the Shared Prosperity Vision aimed at balancing living standards and community development, education and the cultivation of basic entrepreneurship among B40 children have been found to be less emphasized.

Education systems around the world have been shown to be impacted in a number of ways by the unstable economic expansion brought on by the Covid-19 pandemic and the contemporary explosion of digital technology. The United Nations Educational, Scientific, and Cultural Organization (UNESCO), in partnership with UNICEF, the World Bank, and other international organizations, introduced the Incheon Declaration Education 2030 to reaffirm their commitment to supporting education systems, including economic factors, in severely affected countries due to the uncertain state of global educational development (UNESCO, 2020).

Furthermore, by implementing youth entrepreneurship programs, the government plays a critical role in supporting family institutions, according to the United Nations, through its Sustainable Development Goals (SDGs) program—more especially, the youth entrepreneurship initiative known as "Exploring Youth Entrepreneurship" (UN-DESA). These initiatives serve young people's educational needs by assisting them in managing their funds (United Nations, 2020).

2 RESEARCH METHOD

2.1 Cultivating Foundational Entrepreneurship in Kindergartens

The National Preschool Standard Curriculum (KSPK) includes Science and Technology as one of its six core pillars, which incorporates objectives for financial literacy education (Ministry of Education Malaysia, 2017). This pillar integrates early mathematics and emphasizes money-related concepts in children's learning. One of its key activities involves introducing basic financial principles to help children understand money management and daily expenses.

However, modern education must also focus on future career readiness. Research indicates that early entrepreneurship education for children aligns with this need, as it fosters social engagement and skill-specific development (Sarikaya & Coşkun, 2015).

2.2 Digital Education and Accessibility for the B40 Group

Under Budget 2021, the Malaysian government allocated RM50 million to upgrade the Malaysian Research & Education Network (MYREN), improving internet connectivity for educational purposes (Ministry of Finance Malaysia, 2020). While digital education access remains largely limited to urban areas, there is hope that free internet access will eventually reach all communities, particularly the B40 group. Nevertheless, urban underprivileged children still face gaps in accessing free WiFi and digital learning resources, highlighting the need for more inclusive infrastructure.

2.3 Early Entrepreneurial Exposure and Long-Term Success

Cheng et al. (2020) studied business education from an early age, focusing on immigrant families from China in the 1960s. Their findings revealed that successful entrepreneurs in the study attributed their achievements to proactive family upbringing, where children were involved in business activities from a young age. This highlights the importance of instilling entrepreneurial fundamentals—such as money management and age-appropriate business activities—in B40 children to foster financial independence and decision-making skills for adulthood (Inanna et al., 2020).


This multifaceted approach cultivates leadership, competitiveness, financial acumen, and discipline—key traits for future success (Mohamad Fazli & Nurhayatul Nira, 2018). Educators play a critical role in creating a supportive environment for B40 children to thrive in entrepreneurial learning.


Abdul Halim & April Ann (2016) advocate for "young entrepreneur" programs rooted in real-life experiential learning. Aligning with Malaysia's Education Development Plan (Ministry of Education, 2018) and Shared Prosperity Vision 2030 (Ministry of Economic Affairs, 2019), early entrepreneurship education prepares children for an increasingly competitive workforce. Financial literacy is a core component, ensuring children grow into savvy financial managers (Inanna et al., 2020; Nurul 'Alyaa Adilla, 2015).


3 RESEARCH METHOD

Creating a Digital Entrepreneurship Education Model for Kindergarten Students from the B40 Group is the main goal of this study. Ritchey and Klein (2007) introduced the Design and Development Research (DDR) Approach, which is the research approach used in this study. This approach was used in order to support current ideas and confirm the applicability of related models (Richey & Klein, 2007).

The study makes use of the Design and Development Research (DDR) technique, a modern framework for research that facilitates the identification and development of models through crucial stages:

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Phase of Needs Analysis
 Phase of Design and Development
 Phase of Evaluation

3.1 Phase of Needs Analysis

For this phase, a questionnaire instrument was developed and distributed to collect pilot study data. The sample for this pilot study comprised National Preschool teachers under the Selangor State Education Department, Federal Territory of Putrajaya, and Federal Territory of Kuala Lumpur. The pilot study involved 120 preschool teachers, with subsequent distribution to 500 kindergarten teachers (actual sample). The collected data will be analyzed using SPSS software, categorized into three levels: low, moderate, and high.

3.2 Phase of Design and Development

Interpretive Structural Modelling (ISM) and the Nominal Group Technique (NGT) were used to collect data and reach expert consensus. Using NGT sampling, particular specialists who could supply the data needed for this investigation were chosen. Ten interdisciplinary experts participated in a workshop to identify the essential components for creating the Digital Entrepreneurship Education Model for B40 Kindergarten Students.

3.3 Phase 3: Assessment of Usability

A systematic questionnaire was created as the research tool for this assessment stage. This survey, which has been approved by experts, evaluates the Digital Entrepreneurship Education Model for Kindergarten Students among kindergarteners in B40 construct validity by measuring:

- Level of knowledge
- Level of comprehension
- The ability to use

To assess the model's usability, 40 preschool instructors were given the questionnaire after it had been validated by experts.

4 RESULTS AND DISCUSSION

4.1 RESULTS

4.1.1 Phase 1 - Needs Analysis

The pilot study involved 120 preschool teachers, with subsequent distribution to 500 kindergarten teachers (actual sample). The Phase 1 framework was developed after analyzing all research data.

Key Findings:

The needs analysis for developing a digital entrepreneurship education model for B40 kindergarten children revealed:

"Children understand the benefits of saving money" received the highest agreement:

- o Agree: 61.9%
- o Strongly agree: 18.8%
- o Mean score: 3.93 (indicating high importance)

4.1.2 Phase 2 - Usability Evaluation

Data collection and expert consensus were conducted using:

1. Nominal Group Technique (NGT) – Structured expert discussions
2. Interpretive Structural Modelling (ISM) – Hierarchical element prioritization

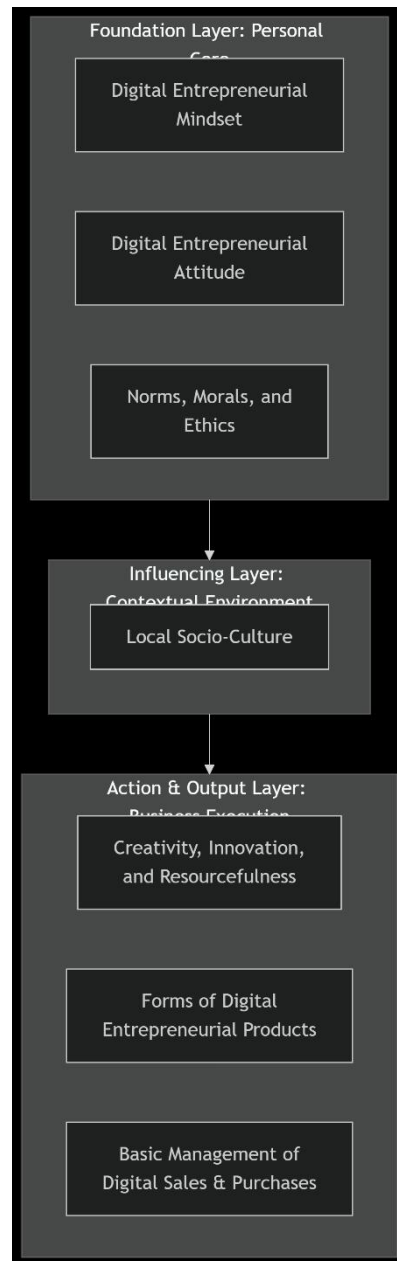
Process:

A workshop was held with researchers and Graduate Research Assistants (GRA) to facilitate element voting. A preliminary Digital Entrepreneurship Education Model was formulated.

Visual Output:

Figure 1 illustrates the prioritized needs processed through NGT and ISM:

Figure 1: Digital Entrepreneurship Education Model for B40 Kindergarten Children



4.1.3 Phase 3 - Usability Evaluation

In this phase, the Digital Entrepreneurship Education Model for B40 Kindergarten Children was evaluated using a structured questionnaire. The results demonstrate the model's practicality and effectiveness based on teacher feedback.

Key Findings:

Table 1 presents the mean scores and standard deviations (SD) for the Overall Usability Perception of the model:

No.	Questionnaire Statement	Mean	SD
1	<i>The model is practical for teachers to train and implement digital entrepreneurship elements in children</i>	4.17	0.98
2	<i>The model clearly guides teachers in detailing each element to be applied to children</i>	3.98	0.89

No.	Questionnaire Statement	Mean	SD
3	<i>The model effectively assists teachers in planning training and implementing digital entrepreneurship elements for children</i>	3.95	0.93
Overall Usability Score		4.57	3.51

5 DISCUSSION

The basic digital entrepreneurship model for kindergarten children is very important for the purpose of formulating best practices and implementing appropriate improvements. The exposure to basic entrepreneurship for the B40 group is closely related to financial information and can have a positive impact on long-term practices (Syahrin et al. 2020). This national-level strategy also supports collaboration in the field of research and guides future policy formulation initiatives to raise public awareness about the importance of financial literacy (Financial Education Network, 2019).

In addition, this program can help parents, the community, and relevant parties by benefiting from the National Transformation 2050 initiative in shaping the well-being of children through a balanced Malaysian economy. Since the target of the National Financial Literacy Strategy 2019-2023 also includes preschool children from the B40 group, this study will add basic entrepreneurship elements to the National Preschool Standard Curriculum in terms of activities, strategies, and implementation. The financial literacy of children through digital entrepreneurship education from an early age can enhance the country's economic status based on the National Transformation 2050 concept.

This study makes a significant contribution to the elements of entrepreneurship, especially the need to develop a Digital Entrepreneurship Education Module for Kindergarten Children of the B40 group based on teachers' perceptions. This is because the study of entrepreneurship in kindergarten is still not carried out much. This study also provides evidence and explanation for the need to develop a model of digital entrepreneurship education for B40 children in kindergarten. It also helps to increase the importance of entrepreneurial knowledge for students' readiness to apply entrepreneurial elements.

6 CONCLUSIONS

A new medium in forming a basic model of entrepreneurship in digital form for kindergarten children is very important for the purpose of devising best practices and implementing appropriate improvements. Disclosure of the B40 group's entrepreneurial fundamentals is closely related to financial information and can have a positive impact on long-term practices (Syahrin et al. 2020). This national-level strategy also supports research collaboration and guides policy-making initiatives in the future to increase public awareness of the importance of financial literacy (Financial Education Network, 2019). In addition, this programme can help parents, the community, and related parties by receiving benefits based on the idea of National Transformation 2050 in shaping the well-being of children through a balanced Malaysian economy.

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