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Enhancing Entrepreneurship among Children with Special Needs through the SMART PUBLISH Toolkit

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Abstract

The SMART-PUBLISH Kickstarter Toolkit was developed to promote entrepreneurship education among students with special needs by providing educators with a structured, user-friendly resource for teaching the processes of authoring, illustrating, and publishing children's picture books. This study evaluated the toolkit's usability and impact with 27 special education educators using a modified Nominal Group Technique (NGT). The findings revealed high usability ratings, with more than 90% of educators agreeing that the toolkit effectively supports instructional planning and teaching. The design integrates experiential learning, enabling students to acquire entrepreneurial skills through practical applications such as story creation and self-publishing. Educators also highlighted the toolkit's potential to encourage parental involvement in collaborative entrepreneurship projects at home. These findings underscore the toolkit's value in addressing the employment challenges faced by individuals with disabilities, offering a pathway toward self-reliance and employability. The study concludes that the SMART-PUBLISH Kickstarter Toolkit represents a significant innovation in special education, fostering creativity, entrepreneurship, and community engagement. Future research should investigate the long-term impact and scalability of this approach in diverse educational contexts.

Keywords: Usability, Toolkit, Entrepreneurship, Authoring, Illustrating, Students with Special Needs

1.0 INTRODUCTION

The curriculum for students with special needs in Malaysia, as in many countries, is designed to nurture life skills, academic competencies, communication, and motor development at the primary level, before transitioning towards vocational and work pathways at the secondary level. This bifurcation, as outlined in the Standard-Based Curriculum and Assessment Document and the Vocational Skills Curriculum Document (Bahagian Pembangunan Kurikulum, 2021a). It aims to equip students with employable skills. However, despite these structured provisions, the transition from school to meaningful employment remains one of the most persistent global challenges for individuals with disabilities.

In Malaysia, as in many other contexts, disability employment is often framed as an act of charity rather than as a recognition of human capital (Dzalani Harun, Normah Che Din, Hanif Farhan Mohd Rasdi & Khadijah Shamsuddin, 2020). Such stigma narrows opportunities for people with disabilities. It reinforces structural unemployment, especially among those with learning disabilities, who consistently record the lowest employment rates compared to peers with physical disabilities (Kementerian Sumber Manusia, 2022).

While some graduates pursue higher education, many remain at home, excluded from the labour force (Mohd Hadir Hj Mahat, 2022). Employers often demand versatile workers who can perform multiple tasks, creating a misalignment between expectations and the realistic capacities of students with moderate to severe functional limitations (Hanizan Che Mat & Muhd Khaizer Omar, 2022). This problem is not confined to Malaysia. Internationally, students with disabilities, particularly those with learning difficulties, face systemic barriers in the school-to-work transition. The persistence of negative perceptions, limited vocational adaptations, and inadequate teacher resources restricts the potential of inclusive education to deliver on its promise of equitable participation. Consequently, many young adults with disabilities remain unemployed or underemployed, despite years of targeted schooling (Mohd Syazwan Zainal, Muhammad Sofwan Mahmud & Wan Ahmad Munsif Wan Pa, 2020).

Thus, the exact problem this study addresses is the global lack of practical, hands-on, and teacher-friendly vocational toolkits that can bridge the gap between secondary school preparation and real-world employability for students with learning disabilities (Barshay, 2025). This issue is of worldwide relevance, as it speaks directly to Sustainable Development Goal (SDG) 8 on “Decent Work and Economic Growth” and to the urgent need to create scalable, adaptable models that empower both educators and learners in inclusive settings. By introducing an innovative toolkit designed for international adaptation, this research tackles the critical bottleneck of employment readiness for one of the most marginalised groups worldwide.

2.0 LITERATURE REVIEW

2.1 Entrepreneurship Education in Special Education in Malaysia.

Entrepreneurship education for students with special needs is increasingly recognised in Malaysia as a potent means to build skills such as creativity, self-

reliance, and problem-solving (Asma Zulaikha Hishamuddin, Hariyaty Ab Wahid & Rafiduraida Abd Rahman, 2023; Parthiban Govindasamy, Noraini Binti Abdullah & Rohaizat Binti Ibrahim, 2021). There is a growing recognition that students with special needs can benefit from entrepreneurial education. (Thivya Kalaichelvan & Norasmah Othman, 2024), which can help them develop skills such as problem-solving, creativity, and self-reliance.

The Malaysian government has begun taking steps to integrate entrepreneurship education into special education settings. For example, there are initiatives to embed entrepreneurial elements in the national curriculum for students with learning disabilities (Govindasamy et al., 2022). Concurrently, non-governmental and private organisations have been collaborating to deliver inclusive programmes. For instance, partnerships such as those between the Malaysian Association for the Blind provide visually impaired students with training and resources to develop entrepreneurial skills. Although specific published studies detailing that programme are limited, its existence reflects broader policy and societal trends.

Nevertheless, despite this momentum, several barriers remain. A recent qualitative study of physically disabled entrepreneurs in Selangor uncovered structural, attitudinal, and financial barriers that limit their effective participation in entrepreneurship. These include difficulties accessing startup capital, limited infrastructure or adaptive facilities, social stigma, and lack of appropriately tailored support and mentorship (Nisrin Ishak, Syafiq Ayob, Norhaninah Gani, Nurisyal Muhammad & Suhaily Mohd Ramly, 2024). In addition, research exploring perceptions among PWDs in Malaysia has shown that internal psychological factors (e.g., confidence, self-efficacy) and external constraints (such as lack of supportive policies, inaccessible environment) shape whether they perceive entrepreneurship as a viable path (Rohana Ngah, Junainah Junid, Mohd Ali Bahari Abdul Kadir, Hasri Abdullah & Natiara Mohamad Hashim, 2024). It highlights the inaccessibility of current training programs and suggests inclusive approaches to tap into the entrepreneurial potential of PWDs (Somrudee Tiasakul, Ramy Abdulzaher & Carlos Bazan, 2024).

2.2 Authoring and Illustrating Children's Story Books as an entrepreneurship activity for students with special needs.

Picture books are an essential source of language, concepts, and lessons for young children (Clinton-Lisell, Strouse & Langowski, 2024; Strouse, Nyhout & Ganes, 2018; Strouse & Ganea, 2021). Many picture books take readers from magical and fantasy-world characters to the land of different animals, or close to home, exploring daily routines with rich illustrations. (Kaithiri Arumugam, Rohaya Md Ali & Phat Awang Deng, 2023). Picture books, with their generic categorisation, entertain a broad spectrum of readers from an early age to adults and beyond (Cassandra Chan, 2025; Hana Hladikova, 2014). It has a unique way of inspiring anyone through the greater power of language visualisation. Over the years, the sales of children's picture books have seen a hike, serving as the latest trend in children's literature (Short, 2018).

Thus, publishing trends are emerging with new technologies that encourage innovative book formats and designs, offering new authors and illustrators to provide a greater range of books for children.

3.0 RESEARCH DESIGN

The usability and suitability evaluation phase of the SMART-PUBLISH Kickstarter Toolkit aimed to gather insights from special education educators. A survey questionnaire, adapted from (Mohd Ridhuan Mohd Jamil, 2017; Syahrizan bin Ariffin, Azli b Ariffin, Abdul Talib Bin Mohamed Hashim, Mohd Ridhuan b Mohd Jamil, Mohd Furdaus b Mustaffa Kamal, 2020) was employed, and data were analysed using the Modified Nominal Group Technique (NGT). NGT is a structured group decision-making method involving face-to-face interactions to generate consensus (Mohd Ikhwan Izzat Zulkefli, Mohd Nuri Al-Amin Endut & Muhammad Ridhuan Tony Lim Abdullah, 2023; Varga-atkins, Mcisaac & Willis, 2015; Ven & Delbecq, 1971). This method ensures equal participation, reducing facilitator bias and influence from dominant voices (Burrows, Findlay, Killen, Dempsey, Hunter & Snodgrass, 2011; Nur Suhaila Ahmad, Aziah Ismail, Muhammad Nidzam Yaakob, Nurul Nadia Ibrahim, Punggothai Chandra Shegaram, 2024). It allows both qualitative idea generation and quantitative evaluation, making it suitable for assessing product usability (Dobbie, Rhodes, Tysinger & Freeman, 2004; O'Neil & Jackson, 1983).

In this study, the Modified NGT was used to assess the overall usability and individual components of the SMART-PUBLISH Toolkit, including its title, content, and manual outlines. The approach ensured systematic participation from all group members, enabling researchers to capture diverse perspectives from experienced special education teachers. The goal was to evaluate not only general usability but also the percentage agreement for each construct and item in the toolkit. Although traditionally used for brainstorming, NGT has been effectively adapted for product evaluation, as demonstrated by Dobbie et al. (2004) in curriculum assessment. The study focused on four research questions:

What is the usability of the SMART-PUBLISH Kickstarter Toolkit for entrepreneurship authoring and illustrating children's picture books, as perceived by educators?

- a) What is the educators' opinion on the suitability of the title of the Kickstarter toolkit?
- b) What is the educators' opinion on the suitability of the contents of the Kickstarter toolkit?
- c) What is the educators' opinion on the suitability of the outlines of the manual book of the Kickstarter toolkit?
- d) What is the educators' opinion on the usability of the SMART-PUBLISH Kickstarter toolkit to teach authoring and illustrating for students with special needs?

Further explanations of the toolkit, a sample of this phase, and the data analysis process are presented in the following sections.

3.1 Instrument

To evaluate the usability and suitability of the elements of the SMART-PUBLISH Kickstarter toolkit, a survey evaluation questionnaire was used. The survey questionnaire for the construct usability is adapted from (Syahrizan bin Ariffin, Azli b Ariffin, Abdul Talib Bin Mohamed Hashim, Mohd Ridhuan b Mohd Jamil, Mohd Furdaus b Mustaffa Kamal, 2020). The adapted instrument was evaluated for both linguistic and content validity by three experts specialised in content and methodology. During this stage, the researchers introduced the developed toolkit to a group of special education educators with at least 5 years of professional experience in special education and who are currently educating students with special needs in national primary and secondary schools. Following the presentation, participants evaluated the 7-point Likert scale questionnaire administered to them.

3.2 Sample of Experts as participants in NGT

In this research, "experts" refer to special education educators with at least 5 years of teaching experience in integrated programmes at primary and secondary national schools. These individuals represent the target users of the SMART-PUBLISH Toolkit and are considered knowledgeable and experienced in delivering differentiated instruction for students with special needs. This aligns with, which emphasises the importance of selecting participants with deep expertise in the study's subject.

The ideal number of NGT participants varies depending on the study aims. While Ven and Delbecq (1971) suggest 5–9 experts, other studies have involved larger samples, such as 14, 36, and even 92. However, 6–12 participants are typically the norm, although larger groups may be justified by the study design. NGT is traditionally used to generate ideas, but it can also evaluate the usability and appropriateness of products, as demonstrated in Dobbie et al. (2004). In this study, 27 special education educators from the Ministry of Education participated, representing the primary user group for the SMART-PUBLISH Toolkit products, as reported by Dobbie et al. (2004).

4.0 ANALYSIS AND DISCUSSION

Many ways have been identified to interpret the data collected from the NGT face-to-face workshop. The NGT's acceptance range for measurement is 70.0% or above (Mohd Ridhuan Mohd Jamil, 2017; Shivaraj Subramaniam, Siti Mistima Maat, Muhammad Sofwan Mahmud, 2023). The range decided is similar to a group of scholars who state that the acceptance percentage of an element is based on the percentage score, where the measuring element for usability shall at least have a percentage of 70.0% based on the opinions of the expert participants in the study. (Deslandes et al., 2010; Dobbie et al., 2004).

4.1 Findings

As outlined in the methodology section, the primary objective of this paper is to evaluate the usability and suitability of the newly developed SMART-Publish Toolkit. Usability can be conceptualised as a systematic approach to assess the extent to which a developed product is user-friendly, achieved by soliciting feedback from the target user population. (Suhaibah Mukhtar, Ahmad Zabidi Abd Razak, Muhammad Hayat Khan, 2024). Additionally, it serves as a means of assessing whether the product has successfully achieved its intended objective or purpose during its development. During product development, it is common practice to conduct usability tests to determine the product's efficacy, efficiency, and user satisfaction. The usability of any new product depends on user satisfaction and opinions. (Don & Gwo, 2012). In the context of this study, the researcher seeks to understand user satisfaction among special education educators teaching students with special needs in national schools.

4.1.1 Findings of educators' opinion on the suitability of the title SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books.

In this section, the first sub-question, which addresses the suitability of the title "SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books," is answered. The suitability evaluation for the title was conducted by seeking opinions from expert participants. The evaluation sought to answer the following sub-questions.

What is the educators' opinion on the suitability of the title of the Kickstarter toolkit?

The title SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books was accepted based on experts' consensus in the Fuzzy Delphi phase earlier. In this section, educators, the user population, were asked to give their opinion on the suitability of the accepted title. The findings obtained are presented in Table 1.

Table 1. Educators' opinions on the suitability of the title SMART-PUBLISH Kickstarter Toolkit for Entrepreneurship Authoring & Illustrating Children's Picture Books.

No	Item	Total Score (n=27)	Percentage (%)	Results
1	SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books	178	94.2	Suitable

The analysis was conducted to gauge educators' opinions on the suitability of the title "SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books." The findings report that the title SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring & Illustrating Children's Picture Books is suitable for representing the authoring and illustrating

toolkit, according to the educator's opinion. The title is accepted based on the usability percentage $\geq 70.0\%$ (Deslandes et al., 2010; Dobbie et al., 2004). The following section will answer the second sub-question.

4.1.2 Findings of educators' opinions on the suitability of the contents in the SMART-PUBLISH Kickstarter Toolkit

In this section, the suitability of the contents in the SMART-PUBLISH Kickstarter toolkit was evaluated by seeking opinions from expert participants. The evaluation was sought to answer the second sub-question.

What is the educators' opinion on the suitability of the contents in the SMART-PUBLISH Kickstarter toolkit?

There are five items in this section. Educators, the user population, were asked for their opinions on the suitability of the content. Findings obtained are presented in Table 2.

Table 2. Educators' opinion on the suitability of the contents in the SMART-PUBLISH Kickstarter Toolkit.

No	Item	Total Score (n=27)	Percentage (%)	Results
1	The toolkit is in the form of a gift box	181	95.8	Suitable
2	The toolkit contains a manual for authoring and self-publishing children's books.	173	91.5	Suitable
3	The toolkit contains a video clip on designing the book.	176	93.1	Suitable
4	The toolkit contains a free self-published children's storybook	172	91.0	Suitable
5	The toolkit is in electronic form.	172	91.0	Suitable

Findings from the data analysis report indicate that all 5 items proposed as the toolkit's contents are considered suitable by educators. The items are accepted based on a suitability percentage of $\geq 70.0\%$ (Deslandes et al., 2010; Dobbie et al., 2004). The accepted items for suitability are a toolkit in the form of a gift box containing a manual on authoring and self-publishing children's books, a video clip on book design, a free self-published children's story book, and a toolkit in electronic form. All these items also received expert consensus in the fuzzy Delphi phase. Similarly, educators who are users have also agreed that the content features designed for the SMART-PUBLISH Kickstarter Toolkit are suitable. The following section will answer the third sub-question.

4.1.3 Findings of educators' opinions on the suitable outlines in the content of the manual book of the SMART-PUBLISH Kickstarter toolkit. In this section, the suitability of the outlines for the contents of the SMART-PUBLISH Kickstarter toolkit manual book was evaluated, with opinions from expert participants sought. The evaluation was conducted to answer the following sub-question. This sub-question has four outlines measured.

What is the educators' opinion on the suitability of the outlines of the manual book of the Kickstarter toolkit?

There are four outlines of the manual book in this section. Educators, the target user population, were asked to provide their opinions on the suitability of the outlines in the manual.

- i. Outline 1: Contents of the manual book of the SMART-PUBLISH Kickstarter Toolkit.

The first outline is the contents of the manual book. There are 7 items proposed under this outline. Findings obtained are presented in Table 3

Table 3. Contents of the manual book of the SMART-PUBLISH Kickstarter toolkit

NO	Item	Total Score (n=27)	Percentage (%)	Results
1	Cover page	189	100	Suitable
2	Title page	156	82.5	Suitable
3	Copyright page	164	86.8	Suitable
4	Table of contents page	171	90.5	Suitable
5	Topic 1: Steps to prepare the story	175	92.6	Suitable
6	Topic 2: Steps to prepare illustrations	175	92.6	Suitable
7	Topic 3: Steps to self-publish and marketing	172	91.0	Suitable

The findings from the data analysis report indicate that all 7 items proposed in the initial outline of the toolkit's manual are suitable according to educators' views. The items are accepted based on a suitability percentage $\geq 70.0\%$ (Deslandes et al., 2010; Dobbie et al., 2004). The accepted items for suitability are the covering page, title page, copyright page, table of contents page, topic 1, topic 2, and topic 3. This first outline serves as the frame for the manual. The following section will be the second outline of the manual book, which is the suitability of the content of topic 1.

- ii. Outline 2: Suitability of the content of Topic 1: Steps to prepare the story.

The second outline is the content of topic 1 in the manual book, covering the steps to prepare the story. Six items are proposed in this outline. Findings obtained are presented in Table 4.

Table 4. Content of Topic 1: Steps to prepare the story in the Manual Book of Kickstarter Toolkit

NO	Item	Total Score (n=27)	Percentage (%)	Results
1	Identifying the theme	184	97.4	Suitable
2	Planning the story structure;	159	84.1	Suitable
3	Beginning- Middle -Ending Identifying the characters.	166	87.8	Suitable
4	Identifying the climax	173	91.5	Suitable
5	Identifying the setting, such as a sunny day, happy feel- ings, or being in the park or classroom.	175	92.6	Suitable
6	Writing the script	177	93.7	Suitable

Findings from the data analysis report indicate that all 6 items proposed in the second outline of the toolkit's manual are suitable from the educators' perspective. The items are accepted based on a suitability percentage $\geq 70.0\%$ (Deslandes et al., 2010; Dobbie et al., 2004). The accepted items for suitability are: identifying the theme; planning the story structure (beginning-middle-ending); identifying the characters; identifying the climax; identifying the setting (e.g., sunny day, happy feelings, in the park, in the classroom); and writing the script. These are the contents of topic 1 in the manual book. The following section will be the third outline of the manual book, which is the suitability of the content of topic 2.

- iii. Outline 3: Suitability of the content of Topic 2: Steps to prepare the illustrations.

The third outline is the content of topic 2, which outlines the steps to prepare the illustrations in the manual book. 5 items are proposed in this outline. Findings obtained are presented in Table 5.

Table 5. Content of Topic 2: Steps to Prepare the illustrations in the Manual Book of Kickstarter Toolkit

NO	Item	Total Score (n=27)	Percentage (%)	Results
1	Creating character	182	96.3	Suitable
2	Designing Book Cover illustration	162	85.7	Suitable
3	Prepare a storyboard based on the text	165	87.3	Suitable
4	Check the illustration and story compatibility.	174	92.1	Suitable
5	Deciding the suitable art medium for the illustration: e.g. digital, water colours, pencil colours, crayon, etc.	174	92.1	Suitable

Findings obtained from the data analysis report that all 5 items proposed in the third outline of the manual book of the toolkit are suitable based on the educators' view. The items are accepted based on a suitability percentage of 70.0% or higher (Deslandes et al., 2010; Dobbie et al., 2004). The accepted items for suitability include creating character designs, designing book cover illustrations, preparing storyboards based on the text, checking the compatibility of illustrations and stories, and deciding on the suitable art medium for the illustrations: e.g., digital, watercolours, pencil colours, crayon, etc. These are the contents of topic 2 in the manual book. The following section will outline the fourth part of the manual book, which addresses the suitability of the content for topic 3.

iv. Outline 4: Content of Topic 4: Steps to self-publish and marketing.

The fourth outline is the content of topic 3 on steps to self-publish and marketing in the manual book. There are 5 items proposed in this outline. The findings obtained are presented in Table 6.

Table 6. Content of Topic 3: Steps to Self-Publish and Marketing in the Manual Book of Kickstarter Toolkit

N O	Item	Total Score (n=27)	Percentage (%)	Results
1	Designing the book, e.g., size, book layout, margin, and pagination.	177	93.7	Suitable
2	Procedures for applying for an ISBN	162	85.7	Suitable
3	Self-Printing the book	167	88.4	Suitable
4	Deciding book price	169	89.4	Suitable
5	Framing the marketing plan	174	92.1	Suitable

Findings obtained from the data analysis report that all 5 items proposed in the fourth outline of the manual book of the toolkit are suitable based on the educator's view. The items are accepted based on a suitability percentage $\geq 70.0\%$ (Deslandes et al., 2010; Dobbie et al., 2004). The accepted items for suitability are designing the book, e.g. size, book layout, margin and pagination, procedures of applying for ISBN, self-printing the book, deciding book price and framing the marketing plan. These are the contents of topic 3 in the manual book. The following section will answer the fourth sub-question.

4.1.4 Findings of educators' opinion on the overall usability of the SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring and Illustrating Children's Picture Books.

In this section, the suitability evaluation was carried out to determine the overall usability of the SMART-PUBLISH Kickstarter toolkit by seeking opinions from the expert participants. The evaluation was sought to answer the fourth sub-question.

What is the educators' opinion on the usability of the SMART-PUBLISH Kickstarter toolkit for teaching authoring and illustrating to students with special needs? Upon evaluating the suitability of the constructs and items of SMART-PUBLISH Kickstarter Toolkit, it was also necessary to know the opinion of the participants representing the user population on the usability of SMART-PUBLISH Kickstarter Toolkit in teaching students with special needs to author, illustrate and self-publish children's picture books. There are 5 usability items in this section, each with a 7-point Likert scale of agreement, ranging from 'totally disagreed' to 'agreed'. Table 7 presents the percentage of agreement of the participants on the usability of SMART-PUBLISH as a whole.

Table 7. Educators' opinion on the overall usability of the SMART-PUBLISH Kickstarter Toolkit of Entrepreneurship Authoring and Illustrating Children's Picture Books.

NO	Item	Total Score (n=27)	Percentage (%)	Results
1	The Toolkit can help special education educators plan, develop, and create activities tailored to the needs of special education students.	176	93.1	Suitable
2	The Toolkit can help special education educators to promote authoring and publishing activities to a greater extent in other schools and the community.	165	87.3	Suitable
3	This Toolkit can help students to initiate publishing activities independently with their parents.	168	88.9	Suitable
4	The toolkit encourages parents to participate in entrepreneurship activities at home with their children.	175	92.6	Suitable
5	The toolkit can help promote the best practices of children's picture book publishing in the broader population	173	91.5	Suitable

Data analysis shows that all five proposed toolkit components were rated suitable by educators, with usability scores exceeding the 70% threshold (Deslandes et al., 2010; Dobbie et al., 2004). Overall, 93.1% of educators agreed that the SMART-PUBLISH Toolkit effectively supports teaching authoring and illustrating to special needs students. Additionally, 87.3% believe it can be adopted across schools and communities, 88.9% feel it encourages student independence, and over 92% agree it promotes parent engagement and best practices in children's publishing. The toolkit's high acceptance rates affirm its alignment with educator needs. Key components, including manuals, videos, and book samples, received over 90% approval, reflecting their relevance and practicality. Its structured approach to story and illustration development, including clear steps and adaptable art methods, supports diverse learners and fosters creativity. This experiential, hands-on model aligns with effective entrepreneurship education practices. (Bell & Bell, 2020), helping students build skills critical to employability (Dzalani Harun et al., 2020).

The toolkit not only empowers students but also creates collaborative links between educators, students, and families (Thivya Kalaichelvan & Norasmah Othman, 2024).

The toolkit's usability ratings ($\geq 91\%$) align with the global benchmark for practical educational tools (Kolb & Kolb, 2009). Reinforcing its applicability in special education settings worldwide. Furthermore, the integration of experiential learning aligns with Bell & Bell's (2020) entrepreneurship education model, indicating not only high usability but also pedagogical robustness. Future research should assess long-term impacts and scalability across varied educational contexts, while enhancing digital accessibility through user-informed refinements.

The novelty of this research lies in the development and empirical usability testing of the SMART-PUBLISH Kickstarter Toolkit, a pioneering resource that integrates authorship, illustration, and self-publishing into entrepreneurship education for students with special needs. Unlike conventional vocational training, which typically emphasises manual or service-based skills, this toolkit introduces learners to the creative economy, offering an innovative pathway to self-employment and community engagement. Its teacher-centred design, validated through systematic usability testing with experienced educators, ensures practicality, adaptability, and immediate classroom application. This is the first documented toolkit that empowers students with disabilities to become creators rather than consumers of knowledge products, positioning them as authors and illustrators with entrepreneurial potential. The toolkit also extends learning beyond the classroom by involving parents, thereby fostering collaborative entrepreneurship at home. Its structured, experiential approach not only enhances teaching and learning practices but also holds promise for cross-cultural adaptation, making it relevant to diverse educational systems worldwide (Somrudee Tiasakul et al., 2024).

5.0 CONCLUSION

The SMART-PUBLISH Kickstarter Toolkit represents a significant innovation in bridging the gap between special education and employment readiness. By combining creativity with entrepreneurship, it equips students with practical skills that are transferable to the real world, while simultaneously empowering teachers with a structured, user-friendly resource. The usability analysis, which showed over 90% approval, highlights its strong potential for adoption in schools and communities. Beyond immediate usability, the toolkit demonstrates broader educational, social, and policy implications. It provides a sustainable model for preparing students with learning disabilities for participation in the creative economy, an area often overlooked in traditional vocational education. It also strengthens home-school partnerships by encouraging parental involvement in entrepreneurial activities. At a systemic level, the toolkit offers policymakers an adaptable framework that can be integrated into national curricula to address post-school unemployment among students with disabilities. Future research should examine the long-term impacts of the toolkit on student outcomes, its adaptability across cultural and linguistic contexts, and its potential for digital transformation

(Habib, 2024). By reframing entrepreneurship education for students with special needs through authorship and creative expression, this study offers a pioneering model with global applicability, contributing to more inclusive, equitable, and sustainable futures.

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REFERENCES

- Asma Zulaikha Hishamuddin, Hariyaty Ab Wahid, & Rafiduraida Abd Rahman. (2023). Social Entrepreneurship Approach Towards Leveraging Persons with Disabilities (PwD) in Malaysia. *International Business Education Journal*, 16(1), 85–97. <https://doi.org/10.37134/ibej.vol16.1.7.2023>
- Bahagian Pembangunan Kurikulum. (2021a). *Bahagian Pembangunan Kurikulum*. <http://Bpk.Moe.Gov.My/Index.Php/Terbitan-Bpk/Pendidikan-Khas/Category/383-Kefungsian-Rendah>.
- Bahagian Pembangunan Kurikulum. (2021b). *Kurikulum Sekolah Menengah*. Kementerian Pendidikan Malaysia. <http://bpk.moe.gov.my/index.php/terbitan-bpk/pendidikan-khas>
- Barshay. (2025). *The Hechinger Report: Top scholar says evidence for special education inclusion is 'fundamentally flawed'*. <https://hechingerreport.org/proof-points-special-education-inclusion-research-flawed/>
- Bell, R., & Bell, H. (2020). Applying educational theory to develop a framework to support the delivery of experiential entrepreneurship education. *Journal of Small Business and Enterprise Development*, 27(6), 987–1004. <https://doi.org/10.1108/JSBED-01-2020-0012>
- Burrows, T., Findlay, N., Killen, C., Dempsey, S. E., Hunter, S., & Snodgrass, S. (2011). Using Nominal Group Technique to Develop a Consensus Derived Model for Peer Review of Teaching Across a Multi-school Faculty. *Journal of University Teaching & Learning Practice*, 8(2).
- Cassandra Chan. (2025). *Clement Hurd and the Artistic Integrity of Illustrated Children's Books*. Chapman University.
- Clinton-Lisell, V., Strouse, G., & Langowski, A. M. (2024). Children's engagement during shared reading of ebooks and paper books: A systematic review. *International Journal of Child-Computer Interaction*, 39. <https://doi.org/10.1016/j.ijcci.2023.100632>
- Deslandes, S. F., Mendes, C. H. F., Pires, T. de O., & Campos, D. de S. (2010). *Use of the Nominal Group Technique and the Delphi Method to draw up evaluation indicators for strategies to deal with violence against children and adolescents in Brazil*. 10, 29–37.
- Dobbie, A., Rhodes, M., Tysinger, J. W., & Freeman, J. (2004). Using a modified

- nominal group technique as a curriculum evaluation tool. *Family Medicine*, 36(6), 402–406.
- Don J.F.J, & Gwo H. T. (2012). Social influence on the use of Clinical Decision Support Systems : Revisiting the Unified Theory of Acceptance and Use of Technology by the fuzzy DEMATEL technique. *Computers & Industrial Engineering*, 62(3), 819–828. <https://doi.org/10.1016/j.cie.2011.12.016>
- Dzalani Harun, Normah Che Din, Hanif Farhan Mohd Rasdi, & Khadijah Shamsuddin. (2020). Employment experiences among young malaysian adults with learning disabilities. *International Journal of Environmental Research and Public Health*, 17(1). <https://doi.org/10.3390/ijerph17010115>
- Govindasamy, P., Abdullah, N., Social, R. I.-J. of C., & 2022, U. (2022). Entrepreneurship skills for students with learning disabilities: A review from Malaysian National Curriculum ent. *Journal of Contemporary Social Sciences and Educational Studies*, 2(1). <http://jocss.com/index.php/multidiscipline/article/view/88>
- Habib, A. (2024). *Entrepreneurship Training for People With Disabilities : a Path To Emancipation*. 28(5), 1–18.
- Hana Hladikova. (2014). Children’s Book Illustrations: Visual Language of Picture Books. *CRIS - Bulletin of the Centre for Research and Interdisciplinary Study*, 2014(1), 19–31. <https://doi.org/10.2478/cris-2014-0002>
- Hanizan Che Mat, & Muhd Khaizer Omar. (2022). Is There a Suitable Job for Special Educational Need Children in Skill based Employment? *International Journal of Academic Research in Progressive Education and Development*, 11(4). <https://doi.org/10.6007/ijarped/v11-i4/14798>
- Kaithiri Arumugam, Rohaya Md Ali, & Phat Awang Deng. (2023). Interaksi Antara Muka Surat Verso dan Muka Surat Recto Dalam Buku Cerita Bergambar Kanak-Kanak. *Rumpun Jurnal ...*, 11(1), 1–11. <http://rumpunjurnal.com/jurnal/index.php/rumpun/article/view/169%0Ahttps://rumpunjurnal.com/jurnal/index.php/rumpun/article/download/169/145>
- Kementerian Sumber Manusia. (2022). *Statistik Pekerjaan dan Perburuhan Siri 32 Bil. 2/2022 Jun*. 124.
- Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. *The SAGE Handbook of Management Learning, Education and Development*, April 2011, 42–68. <https://doi.org/10.4135/9780857021038.n3>
- Mohd Hadir Hj Mahat. (2022). Meningkatkan Kemahiran Menternak Lebah Kelulut Dengan Menggunakan “ Kaedah 1 .. 2 .. 3 ..” Bagi Murid Berkeperluan Pendidikan Khas Berkefungsian Rendah. *SEAMEO SEN*, 1, 420–429.
- Mohd Ikhwan Izzat Zulkefli, Mohd Nuri Al-Amin Endut, & Muhammad Ridhuan Tony Lim Abdullah. (2023). Application of the Nominal Group Technique (NGT) in Identifying the Components of the Islamic Affairs Index Instrument. *International Conference on Environmental, Social and Governance*, 2023, 349–361. <https://doi.org/10.18502/kss.v8i20.14614>

- Mohd Ridhuan Mohd Jamil. (2017). *Pembangunan Model Kurikulum Latihan SkiVes Bagi Program Pengajian Kejuruteraan Pembelajaran Berasaskan Kerja*. University Of Malaya.
- Mohd Syazwan Zainal, Muhammad Sofwan Mahmud, & Wan Ahmad Munsif Wan Pa. (2020). Job Marketable for Student with Disability: What We Should Know for Career Transition Programme. *Journal of University of Shanghai for Science and Technology*, 22(12), 1326–1333. <https://doi.org/10.51201/jusst12507>
- Nisrin Ishak, Syafiq Ayob, Norhaninah A. Gani, Nurisyal Muhammad, & Suhaily Mohd Ramly. (2024). Overcoming Barriers : A Qualitative Study of Physically Disabled Entrepreneurs. *Library Progress International*, 44(6), 14–20.
- Nur Suhaila Ahmad, Aziah Ismail, Muhammad Nidzam Yaakob, Nurul Nadia Ibrahim, Punggothai Chandra Shegaram. (2024). ITThe Power of Values: A Comprehensive Training Model For Middle Leaders in Education. *International Journal of Education, Pcyhology and Counseling.*, 9(55), 516–531. <https://doi.org/10.35631/IJEP.955034>
- O’Neil, M. J., & Jackson, L. (1983). Nominal Group Technique: A process for initiating curriculum development in higher education. *Studies in Higher Education*, 8(2), 129–138. <https://doi.org/10.1080/03075078312331378994>
- Parthiban Govindasamy, Noraini Binti Abdullah, & Rohaizat Binti Ibbrahim. (2021). 635) SEAMEO Regional Centre for Special Educational Needs Importance Of Entrepreneurship Skills Among Student With Learning Disabilities. *International Conference on Special Education*, 4(619), 619. <https://zenodo.org/record/6910029Publishedbyhttps://publication.seameosen.edu.my/index.php/icse/issue/view/4>
- Rohana Ngah, Junainah Junid, Mohd Ali Bahari Abdul Kadir, Hasri Abdullah, & Natiara Mohamad Hashim. (2024). Factors influencing persons with disabilities perception in entrepreneurship: The mediating effect of entrepreneurial motivation. *Journal of Infrastructure, Policy and Development*, 8(10), 1–17. <https://doi.org/10.24294/jipd.v8i10.6678>
- Shivaraj Subramaniam, Siti Mistima Maat, Muhammad Sofwan Mahmud. (2023). Designing Problem-Solving Module Based on Computational Thinking in Mathematics Education : Nominal Group Technique Approach Designing Problem-Solving Module Based on Computational Thinking in Mathematics Education : Nominal Group Technique Approach. *International Journal of Academic*, 1(2), 1381–1396. <https://doi.org/10.6007/IJARPED/v12-i2/17262>
- Short, K. (2018). What’s Trending in Children’s Literature and Why It Matters. *Language Arts*, 95(5), 287.
- Somrudee Tiasakul, Ramy Abdulzaher, & Carlos Bazan. (2024). Accessibility of Entrepreneurship Training Programs for Individuals with Disabilities: A Literature Review. *Administrative Sciences*, 14(8). <https://doi.org/10.3390/admsci14080187>
- Strouse, G. A., & Ganea, P. A. (2021). The effect of object similarity and alignment of examples on children’s learning and transfer from picture books. *Journal of Experimental Child Psychology*, 203.

- <https://doi.org/10.1016/j.jecp.2020.105041>
- Strouse, G. A., Nyhout, A., & Ganea, P. A. (2018). The role of book features in young children's transfer of information from picture books to real-world contexts. *Frontiers in Psychology*, 9(FEB), 1–14. <https://doi.org/10.3389/fpsyg.2018.00050>
- Suhaibah Mukhtar, Ahmad Zabidi Abd Razak, Muhammad Hayat Khan. (2024). Enhancing School Performance through Instructional Leadership : Insights from the Nominal Group Technique in the Malaysian Context. *Asian Journal of Environment- Behaviour Studies.*, 15–27. <https://doi.org/10.21834/aje-bs.v9i27.445>
- Syahrizan bin Ariffin, Azli b Ariffin, Abdul Talib Bin Mohamed Hashim, Mohd Ridhuan b Mohd Jamil, Mohd Furdaus b Mustaffa Kamal. (2020). Aplikasi Teknik Nominal Group Technique (Ngt) Terhadap Pembangunan Elemen Model Kurikulum Projek Tahun Akhir Kolej Vokasional Berasaskan Industri Pembinaan. *Jurnal Penyelidikan Dedikasi*, 18(1), 104–118.
- Thivya Kalaichelvan, & Norasmah Othman. (2024). Teachers ' Readiness in Developing Special Needs Students Entrepreneurial Mindset. *International Journal of Advanced Research in Education and Society*, 6(2), 783–793.
- Varga-atkins, T., Mcisaac, J., & Willis, I. (2015). Focus Group meets Nominal Group Technique : an effective combination for student evaluation ? *Innovations in Education and Teaching International*, July, 1–12. <https://doi.org/10.1080/14703297.2015.1058721>
- Ven, A. Van De, & Delbecq, A. L. (1971). Nominal Versus Interacting Group Processes for Committee Decision-Making Effectiveness. *Academy of Management Journal*, 14(2), 203–212. <https://doi.org/https://psycnet.apa.org/doi/10.2307/255307>