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Effectiveness of Using Flipbook Media to Improve Life Skills for Students with Special Needs

Efektivitas Penggunaan Media Flipbook untuk Meningkatkan Kecakapan Hidup Peserta Didik Berkebutuhan Khusus

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Abstract: Training students with special needs to learn vocational skills is not as straightforward as training students in general. During instruction, deaf students require particular attention because many instructional media currently in use do not sufficiently accommodate them. This study therefore aims to develop a flipbook learning medium that better accommodates deaf students. This study uses a descriptive qualitative method, employing interviews, documentation studies, and observation. The stages of the research method include conducting interviews, carrying out documentation studies, making observations, compiling a feasibility instrument for the flipbook learning medium, developing a hair-care flipbook framework, validating the medium with learning media experts, conducting a feasibility test of the flipbook, analyzing the feasibility test results, and implementing the learning medium on mobile phones or personal computers for students with special needs. The independent variable used was students at Harmoni Special School. The results indicate that the flipbook learning medium is feasible and can be used with several revisions.

Abstrak: Melatih peserta didik berkebutuhan khusus untuk mempelajari keterampilan vokasional tidak semudah melatih peserta didik pada umumnya. Selama instruksi, peserta didik tunarungu memerlukan perhatian khusus karena banyak media pembelajaran yang digunakan selama ini kurang mengakomodasi kebutuhan mereka. Oleh karena itu, penelitian ini bertujuan untuk mengembangkan media pembelajaran berupa flipbook yang lebih mengakomodasi peserta didik tunarungu. Metode yang digunakan dalam penelitian ini adalah deskriptif kualitatif, dengan menggunakan wawancara, studi dokumentasi, dan observasi. Tahapan metode penelitian meliputi wawancara, studi dokumentasi, observasi, penyusunan instrumen kelayakan media pembelajaran flipbook, penyusunan kerangka flipbook perawatan rambut, validasi oleh ahli media pembelajaran, uji kelayakan flipbook, analisis hasil uji kelayakan, serta penerapan media pembelajaran pada telepon seluler

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atau komputer bagi peserta didik berkebutuhan khusus. Variabel bebas yang digunakan adalah peserta didik di Sekolah Luar Biasa Harmoni. Hasil penelitian menunjukkan bahwa media pembelajaran flipbook dinyatakan layak dan dapat digunakan setelah melalui beberapa kali revisi.

Keywords: flipbook; children with special needs; life skills.
Kata kunci: flipbook; anak berkebutuhan khusus; kecakapan hidup.

1. Introduction

Children with special needs are children whose characteristics differ from those of children in general, not necessarily involving a mental, emotional, or physical disability. The concept covers a broader range than is often assumed: a child is considered to have special needs when something is lacking, or even present in excess, relative to typical development. Special needs include visual impairment, deafness, intellectual disability, physical disability, learning difficulties, behavioral disorders, giftedness, and health problems. Such children need to be treated constructively so that their potential can be developed to the fullest and they can make a positive contribution to their families, their environment, society, and the nation [1].

To empower children with special needs and fulfill their rights, special education management must motivate and develop their potential across all aspects of daily life. Within school programs, developing students' potential is essential to the learning process, equipping students for independent living, self-improvement, the courage to stand up for what is right, and participation in social life. Studies show that very few students with intellectual disabilities find employment after completing secondary school; most graduates instead rely on welfare benefits and social services. Research on why people with intellectual disabilities occupy a marginal position in the labor market remains limited. However, the implicit assumption is that this relates to the labor market structure, which offers few low-skilled jobs, and to employers' reluctance to hire this group [2].

As education providers, schools bear substantial responsibility for preparing students with the life provisions they need after graduation. Life skills themselves can be classified into three main components: academic skills, social skills, and vocational skills. Because students with intellectual disabilities often struggle with the cognitive demands of academic skills, they need to focus on skills that strengthen social functioning. The emphasis on vocational skills is intended to help children with special needs develop their potential and prepare to enter the workforce [3].

Schools can teach various vocational skills to develop the potential of students with intellectual disabilities; accordingly, they need to adapt the vocational

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skills offered to a level of difficulty appropriate for these students, both for use in the community and for eventual application in the workplace.

Against this background, educational technology and information and communication technology (ICT) are argued to play an important role in creating an effective and adaptable learning environment, particularly when teaching students with special educational needs in inclusive classrooms. To date, however, the use of ICT in addressing special educational needs has been inadequate: most hardware and software are designed for the mainstream population and do not pay sufficient attention to the wide range of capabilities of people with disabilities [4]. This is relevant to deaf children's capacity to capture information primarily through vision, so that direct, visually grounded practice helps students understand the skills being taught while reducing the possibility of misperception. As a vocational program, hairdressing aims to build competence in hairstyling, including hair care, modern and traditional up-styling, hair coloring, hair straightening, and haircutting, so students can become entrepreneurs or work in beauty-product companies. Therefore, special-school students need a learning medium that offers greater benefits. For deaf children, such a medium supports learning hair-beauty skills by making the material easier to grasp.

Learning media for deaf children do not differ greatly from learning media for students in general; the key difference is the use of clear, simplified text accompanying each image to support the learning process. Therefore, a learning medium is needed that offers greater benefit to special-school students. Video-based learning media accessed through Android devices is one such solution at Harmoni Special School; this medium allows students to engage more interactively in the learning process.

Harmoni Special School, located in Sidoarjo, East Java, Indonesia, serves children with special needs, including those who are blind, deaf, intellectually disabled, or autistic. It is one of the special schools that teaches vocational skills, evidenced by the wide range of vocational subjects offered, from singing, dancing, and culinary arts to beauty, crafts, and painting. These subjects aim to help students become skilled, independent, and less dependent on others; within this range of skills, students at Harmoni must choose one, which encourages them to become confident and successful entrepreneurs.

The Great Dictionary of the Indonesian Language (Kamus Besar Bahasa Indonesia) describes life skills as a way to motivate students by helping them understand themselves and their potential so they can solve life's problems. In 1997, the World Health Organization (WHO) described life skills as abilities that support students' overall development and strengthen their capacity to face life's problems; basic skills for independent living include food preparation,

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personal hygiene, and job-readiness training [5]. Life skills are essential for a successful transition from dependent childhood to independent adulthood [6].

The goal is to determine what to teach to move students toward independence as they grow older; targets should span recreational, academic, vocational, emotional, and social skills. The key challenge is to balance academic instruction and functional life skills so neither is neglected [7]. Life skills training can teach students to make decisions, act assertively, and think critically; when fully learned, these skills have a direct, substantial positive effect on adults, adolescents, and children across many countries, improving well-being and health [5]. Life skills addressed at both the secondary and elementary levels include interpersonal relationship skills, effective communication, self-awareness, decision-making, empathy, problem-solving, critical and creative thinking, and coping with stress and emotions. The learning process requires teachers to manage students' learning activities, a core responsibility: designing and implementing the process so students can achieve the set goals. Teachers' professionalism in spoken communication is a key asset to develop so students can follow the learning process comfortably and enjoyably, with a clear understanding of the material presented.

Teacher education programs today carry a significant responsibility to ensure that new graduates are well prepared to include all students in mainstream classrooms, regardless of individual differences. One way of determining whether pre-service teachers are ready for this challenge is to examine their perceived efficacy in implementing inclusive practices [7]. Educators who plan, lead, and direct teaching typically describe three components of instructional delivery strategy: (a) the learning medium, (b) students' interaction with the medium, and (c) the form the teaching and learning process takes [8].

Using instructional media in teaching and learning can generate new enthusiasm and interest, raise motivation and engagement in learning activities, and even produce beneficial psychological effects on students [9]. Many types of media can be used in learning; instruction tends to be more effective when students can visualize the objects and events being taught, although the medium does not always need to replicate real-world conditions exactly. Visual media is suitable for deaf children because it can facilitate understanding and strengthen memory; it can also foster interest and help children relate the material to the real world [10].

2. Material and methods

This research used a descriptive qualitative method, employing interviews, documentation studies, and observation. The stages of the research method were as follows: conducting interviews, carrying out documentation studies, making observations, compiling a feasibility instrument for the flipbook learning medium, developing a hair-care flipbook framework within the

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cosmetology education study program, validating the medium with learning media experts, conducting a feasibility test of the flipbook, analyzing the feasibility test results, and implementing the learning medium on mobile phones or personal computers for students with special needs at Harmoni Special School.

The independent variable used was students with special needs in the cosmetology study program at Universitas Negeri Surabaya, while the dependent variable was the flipbook learning medium.

This research instrument assessed the feasibility of the flipbook learning medium. Respondents indicated their assessment by placing a checkmark (√) on each item using a five-point scale: 1 (very poor), 2 (poor), 3 (fairly good), 4 (good), and 5 (very good).

Data were collected through interviews, observation, and documentation.

The quality assessment results were analyzed based on observers' ratings. The analysis calculated the average score observers gave for each component of the developed medium. The average score was calculated using the following formula, where $\bar{X}$ denotes the average score, X the total score, and N the number of raters:

$$\bar{X} = \frac{\sum X}{N}$$

To interpret the results of the five observers' assessments of the quality of the flipbook learning medium, the following criteria were used: not good (1.00-1.99), fairly good (2.00-2.99), good (3.00-3.49), and very good (3.50-4.00). The flipbook learning medium is considered feasible if every aspect receives a good (3) or very good (4) rating. The average score of the flipbook learning medium was interpreted as follows: $1.00 \leq MPF \leq 1.50$, not feasible and not yet usable; $1.51 \leq MPF \leq 2.50$, not feasible and not yet usable; $2.51 \leq MPF \leq 3.50$, feasible and usable with slight revisions; and $3.51 \leq MPF \leq 4.00$, feasible and usable without revision (MPF = Flipbook Learning Medium). Data from all components were then tabulated for each observer.

3. Results and discussion

Five observers assessed the feasibility of the flipbook learning medium across 29 statement items grouped into four aspects: content feasibility, language, design, and ease of operation. Each item was rated on a five-point scale ranging from very eligible (SL) to very inappropriate (STL). The complete distribution of responses is presented in Table 1.

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Table 1. Distribution of Respondent Assessment Results

No	Aspect	Item	SL	L	CL	TL	STL
1	Content feasibility aspect	P1	2	2	1	-	-
		P2	3	1	1	-	-
		P3	4	1	-	-	-
		P4	2	3	-	-	-
		P5	4	-	1	-	-
		P6	2	3	1	-	-
		P7	2	2	1	-	-
		P8	3	2	-	-	-
		P9	1	4	-	-	-
2	Language aspect	P10	2	2	1	-	-
		P11	2	2	1	-	-
		P12	2	2	1	-	-
		P13	2	2	1	-	-
		P14	3	2	-	-	-
		P15	3	2	-	-	-
		P16	2	3	-	-	-
3	Design aspect	P17	3	2	-	-	-
		P18	3	2	-	-	-
		P19	3	1	1	-	-
		P20	3	2	-	-	-
		P21	1	3	1	-	-
		P22	1	3	1	-	-
		P23	2	3	-	-	-
		P24	2	2	1	-	-
		P25	3	2	-	-	-
4	Aspect of convenience of operation	P26	3	2	-	-	-
		P27	3	2	-	-	-
		P28	2	2	1	-	-
		P29	3	1	1	-	-
		TOTAL	71	60	15	-	-

Note: SL = very eligible (score 5); L = eligible (score 4); CL = fairly eligible (score 3); TL = not eligible (score 2); STL = very inappropriate (score 1).

After obtaining the weighted score for each response category, we calculated the average score for each aspect using the formula presented in the Method section. Table 2 summarizes the weighted totals and the resulting index value for each of the four aspects.

Table 2. Index Calculation per Aspect

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No	Aspect	SL x 5	L x 4	CL x 3	Total Score	N	Index
1	Content feasibility aspect	23 x 5 = 115	18 x 4 = 72	5 x 3 = 15	202	5	40.4
2	Language aspect	16 x 5 = 80	15 x 4 = 60	4 x 3 = 12	152	5	30.4
3	Design aspect	21 x 5 = 105	20 x 4 = 80	4 x 3 = 12	197	5	39.4
4	Aspect of convenience of operation	11 x 5 = 55	7 x 4 = 28	2 x 3 = 6	89	5	17.8
	Total	-	-	-	-	-	SL=71, L=60, CL=15

Based on the feasibility criteria described in the Method section, the flipbook learning medium is considered feasible if every aspect receives a good (3) or very good (4) rating. Using the calculated average score of 3.2 and the feasibility categories above, the flipbook learning medium is feasible and can be used with minor revisions.

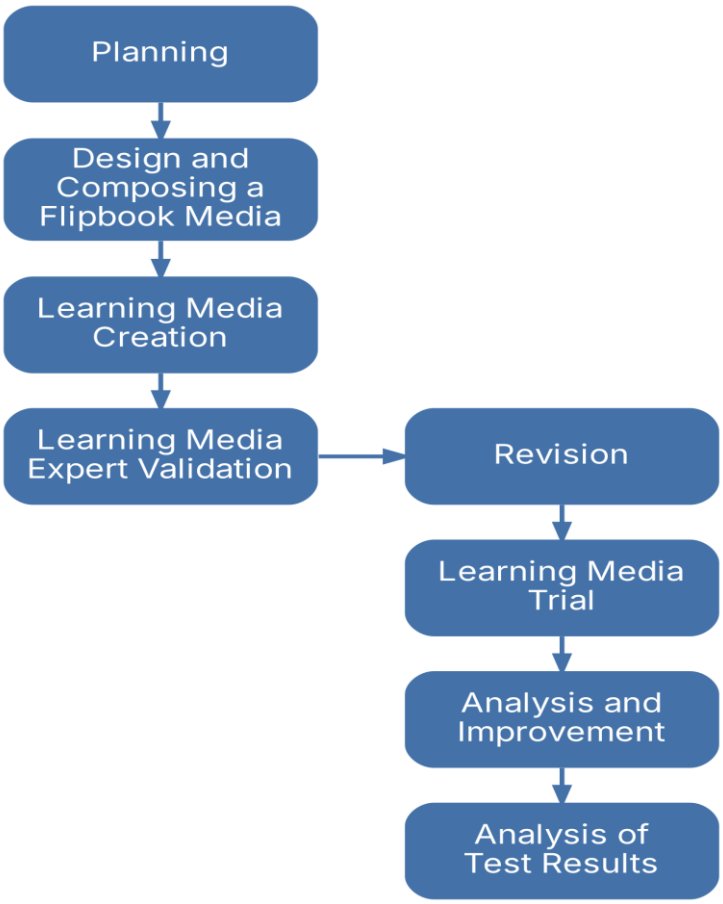


Figure 1. Flipbook Media Development Procedure.

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The learning medium was originally intended to be applied following the procedure shown in Figure 1.

4. Conclusion

Based on the results and discussion above, the following conclusion can be drawn: the flipbook learning medium is feasible and can be used, with minor revisions, to improve the life skills of students with special needs, particularly in hair-beauty skills.

Author's declaration

Author contribution

NTA: conceptualization, data collection, and manuscript preparation. OKP: supervision, instrument validation, and critical review of the manuscript. Both authors read and approved the final version of the article.

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Competing interests

The authors declare no competing interests.

Ethical clearance

This study involved observers assessing the flipbook learning medium.

AI statement

This article is the authors' original work. Grammarly corrected grammatical errors, and Claude helped adapt the manuscript to the journal template.

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