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Development and initial feasibility of the MALIKA Flannel-QR Board for career awareness in 4th grade of elementary school

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ABSTRACT

This study aims to present research results related to the development of the MALIKA Board media to foster career awareness in 4th grade elementary school students. The media development model used is the ADDIE (analyze, design, develop, implement, and evaluate) model. The subjects of this study were nine fourth-grade elementary school students in the city of Mataram. The instruments in this study are validation questionnaires of media experts, material experts, and user responses. Validation was carried out by two 2 media experts, one material expert, and 1 grade fourth teacher. Limited and small group trials involved nine students, while large-scale trials (effectiveness tests) involved 31 4th grade elementary school students as research subjects. The data collected is the feasibility value of experts and users (quantitative) as well as criticism (qualitative) as input for the MALIKA media. The results of media expert validation showed a score of 83.75 (adequate). The validation results of the material experts and practitioners showed a score of 78.5 (feasible). Effectiveness data collection using pretest and posttest with 15 multiple choice and short answer questions. The results of the media effectiveness test on a limited group showed a score of 80 (sufficient), and for a small group, a score of 80.4 (sufficient). The large-scale test showed that Malika media was effective based on the Wilcoxson test (Z_{count} 4.011> Z_{able} 1.96).The results of the validation and field test show that the MALIKA board is suitable for introducing career concepts to fourth-grade elementary school students.

Keywords: Barcode scan, career counselling, elementary education, flanel board, learning media

1. INTRODUCTION

The introduction of career insights to students from elementary school age is a strategic policy to prepare a better generation of Indonesians. Currently, at the elementary school level, there are formal and legal career guidance programs that must be implemented by classroom teachers (King et al., 2023). This is confirmed in the formal document Guidance and Counseling for Students in Elementary Schools, issued by the Ministry of National Education through the Directorate of Basic Education. There are three main focuses of counseling guidance in elementary schools in this manual, namely: personal-social guidance, study guidance, and career guidance (Howard & Ferrari, 2022; Tria Finishia et al., 2020).

Given the important role of career guidance for elementary school students, class teachers should take it seriously. Research by Irham (2022) career guidance should basically be given to all students and integrated from the early years of their education. Career counseling guidance activities carried out integrated with teaching and learning activities are carried out in the form of how the contents or values of career counseling guidance are integrated in the teaching and learning process together (Cojocariu & Cojocariu, 2015; Hirata & Ozawa, 2023).

Ideally, the supervising teacher in each school is an authorized teacher as a supervising teacher with an educational background in guidance and counseling (Loukia & Ourania, 2020; Thamarasseri, 2014). However, Research by (van Kraayenoord, 1994) stated, if there is no supervising teacher at school as happened in elementary schools, then the classroom teacher can carry out the task of guidance and counseling. Research by Fathoni et al. (2021), this is as stated in the Circular Letter of the Minister of Education and Culture No. 143/MPK/1990 dated July 5, 1990, regarding technical guidelines for implementing credit scores for teachers within the Ministry of National Education, that supervising teachers can be carried out by classroom teachers.

In fact, the assignment of a class teacher to also handle Guidance and Counseling raises concerns about practical challenges and obstacles (Zuković & Slijepčević, 2022). These issues often stem from classroom teachers lacking a scientific background in Counseling Guide's and the insufficient availability of media for carrying out counseling practices in elementary schools (Lee & Kim, 2020). In addition to teacher competence, the implementation of career counseling in elementary schools faces urgent problems that need immediate resolution. Classroom teachers particularly need "tools" to effectively implement Counseling Guide services and carry out career guidance and counseling (Siyez & Baş, 2009). Such tools would help students understand career guidance and enable independent study in schools. One effective solution is to develop professional introduction learning media for elementary school students. Learning media is a crucial factor that can determine the success of both learning and counseling guidance by teachers in the classroom (Laila et al., 2021; Witono et al., 2022).

As the characteristics and advantages of the media to be developed (Bunari et al., 2024; Insani et al., 2023), it is easy to use by students, the language is adapted to the development of students' language, it is integrated with the running theme in fourth grade, namely the *Cita-Citaku* theme. The theme of *Cita-Citaku* is one of the subjects that matter in Elementary School. This material aims to introduce students to common professions and invites them to identify other professions that are not widely known. This subject is taught in fourth-grade elementary schools and will be integrated thematically with other subjects.

In other words, guidance learning media is meant to be an efficient medium for teachers, communicative, easy to use, easy to understand, flexible, and easy to carry everywhere. In addition, the developed media is based on strengthening the character of elementary school students. Similar research by Tu & Chan (2022) where the form of media is in the form of pop-up book media to increase career awareness of elementary school students. As a result, the product developed is effective and also deserves the judgment of media experts and Counseling Guide experts (Kjellgren et al., 2024). The developed media can increase the awareness of elementary school students regarding their careers and aspirations.

Teachers can prioritize technology adaptation in developing learning media (Fang et al., 2024). Utilizing smartphones, laptops, and software can enhance the effectiveness of teaching career concepts to elementary students (Liu & Zhang, 2024; Paetsch et al., 2023). Combining images and audio is an innovative approach for teaching these concepts (Alwashmi et al., 2024; Johnston et al., 2017). This

adaptation aligns with the rapid technological advancements of the 21st century (Insani et al., 2023), increasing student interest and motivation (Bunari et al., 2024; Price & Kadi-Hanifi, 2011). Motivated and interested students have improved material comprehension (Harris et al., 2016).

Based on the conditions and background described, the researchers were inspired and interested in developing a self-understanding learning media as an innovation of character-based guidance media for elementary school students. The learning media developed combines traditional media concepts in the form of flannel boards by adding audio related to career concepts through scanning QR codes with smartphones. Through this media, students can identify several types of professions that they can use as a reference in determining their dream careers.

2. METHOD

2.1 Research design

This Research & Development (R&D) study was used to develop the MAri kenaLI KArir (lletus Get to Know Careers) board, abbreviated as MALIKA board media, as a driving tool for students to find their future profession. It is stated that research and development is a process/method used to validate and develop products products (Creswell & Creswell, 2017). This research and development aim to develop MALIKA board Learning Media as a medium to strengthen the understanding of fourth-grade elementary school students regarding career choice as their ideals.

2.2 Research sample

This research involved two media expert lecturers (V1 and V2), one counseling guidance lecturer (V3), and one class teacher (V4) as material experts for validation. The field test included nine fourth-grade students for the limited and small group trials and 31 students for the large-trial phase. All students came from Mataram, West Nusa Tenggara, Indonesia. The student sample in the field trial was divided into three ability groups: average, medium, and high ability. Average-ability students were those who scored in the range of 0-50. Average-ability students were those who generally scored between 51-75. High-ability students were those who scored between 76-100. The selection of students for field trials 1 and 2 was assisted by teachers who reviewed their track records of scores from various tests and assessments. The researchers conducted the selection with the assistance and recommendations of the teachers. Fourth-grade students were chosen for their ability to communicate effectively and respond to research questionnaires and because they have ample time before their final exams, minimizing any disruption to their studies.

2.3 Data collection and instruments

Questionnaire validation was used to assess the feasibility of the MALIKA board learning media. Experts in counseling and media evaluated the concept, content, appearance, image layout, cover, systematics, and presentation language. The questionnaire included "yes/no" or "agree/disagree" responses, scored as 1 for affirmative answers and 0 for negative answers. In addition to experts, feedback was gathered from classroom teachers and students. The collected data will guide revisions to ensure that the product is valid and acceptable.

The trial was also conducted using a data collection technique called test. The test was intended to determine the effectiveness of the Malika product. Data were collected through pre- and post-tests for the target students. The pre- and post-tests consisted of 15 multiple-choice and short-answer questions. The quality of the questions (validity) was tested by guidance counselors and elementary school teachers to ensure relevance to the material being taught.

2.4 Procedures

The research framework used in this study is the ADDIE model (Allen, 2017; Branch, 2009; Nadiyah & Faaizah, 2015) development design with the following stages: (a) analysis, (b) design, (c) development, (d) implementation, and (e) evaluation. Further explanation is provided in the following sections.

Analysis

The first stage is a needs analysis of the use of learning media as a medium for implementing Guidance and Counseling in elementary schools. Researchers identify problems by reviewing curriculum documents, learning tools, and learning media used and compiled by teachers in the field (class), observing during the implementation of learning, and conducting theoretical studies related to learning media in elementary schools.

Design

The second stage involved designing a blueprint for professional smart board learning media to be applied in schools based on the results of the needs analysis in the first stage.

Development

The third stage involved developing MALIKA board media products based on the initial design created in the second stage. During this stage, procedures, and resources, including validation instruments for experts and user assessment instruments, are prepared for expert and user validation tests, as well as field trials. Expert validation is conducted by testing the developed smart board media with media and material experts. The results of these expert tests are then revised and tested with teachers and students in the field.

Implementation

The fourth stage is to carry out user assessments and apply MALIKA board learning media products as an effort to foster an understanding of the ideals of fourth grade elementary school students that have been developed in direct school learning. User testing is done by testing the developed product to teachers and students as users. Based on the results of the previous trial, user responses will be obtained for the professional smart board media product developed.

Limited trials and small group trials were conducted with media implementation in 1 learning session (2 x 35 minutes). The limited trial used 1 MALIKA media for 3 students with the help of 1 smartphone. The small group trial used 2 media and 2 smartphones as aids. For large-scale trials, the class was divided into six heterogeneous groups (equally divided by gender and ability). Each group consisted of five to six students, each with one media device and one smartphone per group.

Learning was carried out by: (1) conveying learning objectives; (2) students in groups received the media and smartphones (Students also completed pretests for large-scale trials.); (3) students collectively analyzed each provided material, accessed each material and the QR-code feature provided, and concluded the results of the material together; (4) students presented the results of their work; (5) the teacher reinforced and clarified the concepts understood by students; and (6) students filled out a questionnaire regarding the suitability of the MALIKA media (Students completed postests for large-scale trials.).

Evaluation

The fifth stage is an evaluation of all stages of research on the development of learning media that have been carried out, the achievement of product development goals, and for the need for improvement of professional smart board learning media products as an effort to foster an understanding of the ideals of fourth grade elementary school students that are developed.

2.5 Data Analysis

Expert assessment data obtained from questionnaires in the form of quantitative data. While the data obtained through a questionnaire. The two data were then analyzed with a combined system (mixed analysis) as suggested by Sugiyono (2022). Furthermore, it is explained that the mix method is a research

method by combining two research methods at once, qualitative, and quantitative in a research activity, so that more comprehensive, valid, reliable, and objective data will be obtained.

Data analysis of the field test results was carried out using several tests: (1) prerequisite tests using normality tests (Shapiro-Wilk test); and (2) hypothesis tests using nonparametric tests using the Wilcoxson formula. The analysis was assisted by the SPSS 27 for Windows application.

3. RESULT

3.1 Field Situation Analysis

At this stage, the research team conducted a preliminary study and analysis of media needs in the field. Preliminary studies are carried out with literature review or document analysis. The documents in question are guidelines for the implementation of Guidance and Counseling, as well as KI-KD at the fourth-grade level of elementary school. The results of the literature review are in the form of the KI-KD formulation and the Independent Competency Standards (SKK) of Students in Elementary Schools according to (Indonesian Counseling Guidance Association, 2007). The focus studied is related to the introduction of careers/jobs based on the aspirations of fourth grade students. So that both KI-KD and SKK that are studied are focused on introduction and knowledge related to the profession/job that students aspire to. The following is a slice between KI-KD and SKK for fourth grade elementary school students can be seen in the Table 1.

Table 1. The Relationship between fourth-grade Social Science Competencies in Elementary Schools and Elementary Counseling Guidance Competencies

Basic Competencies of Social Science fourth grade	Elementary School Student Counseling Guidance Competency Standards
Identify economic activities and their relationship to various fields of work, as well as social and cultural life in the surrounding environment to the province.	Career Insights and readiness
Presenting the results of the identification of economic activities and their relationship to various fields of work, as well as social and cultural life in the surrounding environment to the province.	Introduction: Knowing the variety of work and activities of people in the environment.
	Accommodation: Appreciating the variety of people's work and activities as interdependent
	Action: Expresses the variety of work and activities of people in the environment.

Table 1 describes the relationship between nationally standardized fourth-grade social science competencies and teacher competence in providing student assistance and counseling. Fourth-grade social science competencies focus on understanding social culture and environment, and how economic activities relate to various professions. This ties into the teacher's role in counseling, which involves guiding students to recognize job opportunities and professions. The document analysis was followed by a needs assessment for media to introduce professions to elementary students. Observations revealed a lack of diverse learning media, with teachers mainly using notebooks and simple pictures, often ineffectively. Interviews confirmed the limited availability and use of career-related media in fourth-grade classrooms, with teachers relying on basic explanations due to their limited knowledge of career development.

Post Covid-19, the use of technology in learning has increased, and both teachers and students are now more adept at using devices. This technological proficiency can enhance learning media. Field studies suggest developing simple yet effective learning media to introduce careers to fourth-grade students, integrating technology to make the material more accessible. A proposed solution is to modify flannel board media with QR-code-based audio integration. Flannel boards are chosen for their ease of use and adaptability, while the addition of audio explanations through QR codes will enhance understanding and engagement.

3.2 Development Stage's

At this stage, a blueprint for the MALIKA board media was designed according to the results of the literature review and needs analysis in the field. The media description that will be made is a flannel board that contains simple information about the profession. The design of learning objectives based on Social Studies Competencies in Fourth Grade and Counseling Guidance in Elementary formulated in this study in Table 2.

Table 2. MALIKA Media Development Indicators

Competency Standards for Counseling Guidance in Elementary Schools	Indicator
Introduction: Recognizing the variety of work and activities of people in the environment.	1. Get to know the various kinds of professions that you aspire to. 2. Mention the workplace of each aspired profession. 3. Understand the description of the main tasks of each desired career. 4. Explain the amount of income for each profession that is aspired to. 5. Detailing the level of education that must be taken to achieve the aspired profession. 6. Detailing the advantages of the aspired profession. 7. Detailing the possible risks of each aspired profession.
Basic Competencies of Social Science Fourth Grade	
Identifying economic activities and their relationship to various fields of work, as well as social and cultural life in the surrounding environment to the province.	
Presenting the results of the identification of economic activities and their relationship to various fields of work, as well as social and cultural life in the surrounding environment to the province	

Based on the Table 2 formulation, it can be concluded what subject matter should appear in the material. The materials are: (1) a description of various kinds of aspired professions; (2) a place to work for each aspired profession; (3) a description of the main tasks of each aspired career; (4) the amount of income for each profession that is aspired to; (5) the level of education that must be taken to achieve the aspired profession; (6) the advantages of the aspired profession; and (7) the possible risks of each aspired profession.

The next stage involved selecting the professions that students aspire to. Based on Table 2, six professions will be featured on profession cards: teachers, police officers, soldiers, doctors, firefighters, and pilots. The material for these cards is sourced from various journals, books, and internet pages. The final step was designing the flannel board-based professional smart board media. The materials used include heart sponge, glue, sticker paper, and doll glue. The specifications for each section of the MALIKA board are detailed in Table 3.

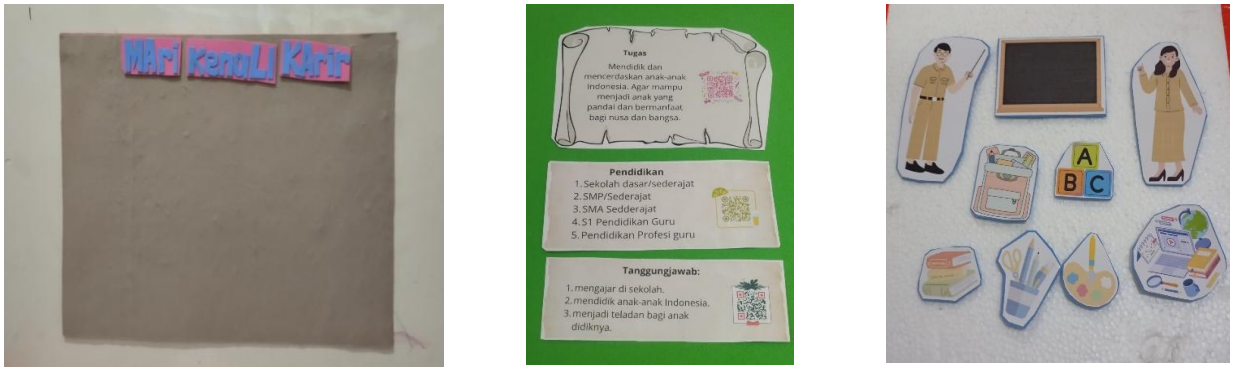
Table 3. MALIKA Board Media Initial Design Details

No	Component Name's	Measure	Material
1	**Baseboard**	120 cm x 60 cm	**Heart sponge, glue, flannel, crutches**
2	**Profession description field + QR-code scanning-based audio**	10 cm x 15 cm	**Heart sponge, glue, doll glue, sticker paper**
3	**Profession pictures**	20 cm x 8 cm	**Heart sponge, glue, doll glue, sticker paper**
4	**Media usage manual**	**A4**	**A4 paper, printer, binding tool**

The third stage, namely product development, has several activities, namely, collecting material tools, making media sections, expert testing (validation), and finalizing the prototype of the MALIKA board. Two main activities carried out at the development stage are: (1) product manufacture; and (2) expert validation.

3.3 Product Manufacture

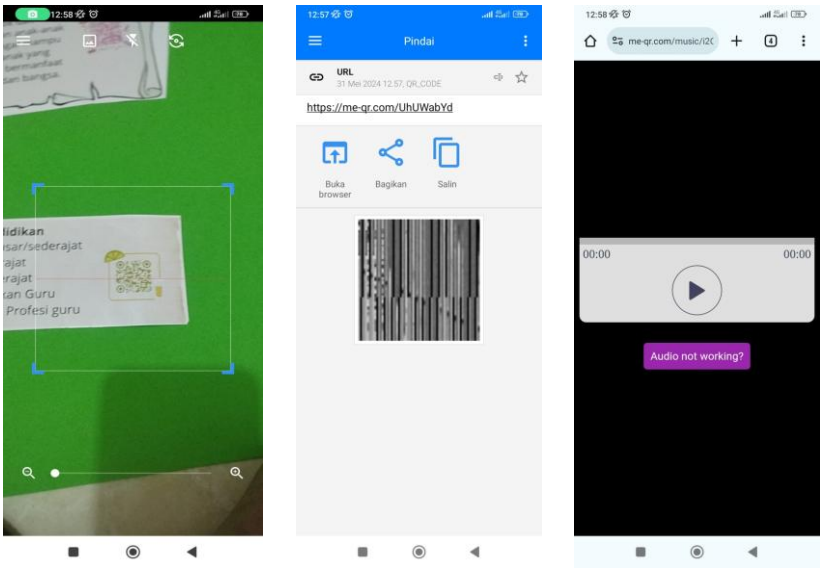
This stage aimed to realize the form of the media. The first part that is made is the flannel baseboard. The picture for this board is shown in Figure 1 (a, b, and c).



(a) (b) (c)

Figure 1. MALIKA Flannelboard (a), Profession Description (b), and Profession pointer accessories (c)

The first part is a flannel-based smart board, measuring 120 cm x 80 cm, with various colors chosen based on students' preferences. It displays information and descriptions of different professions. The second part is a 20 cm x 15 cm description board containing information about each profession. It includes the main text material and audio accessible via QR code. Students can scan the QR codes with their smartphones to hear the audio explanations (Figure 2a, 2b, and 2c). This board is made of heart sponge covered with sticker paper.



(a) (b) (c)

Figure 2. Students scan the QR-code on the MALIKA board (a), Students open the scanned audio link (b), Students play the sound (c)

The last part is the complementary accessories. It contains pictures related to the profession. For example, in the teaching profession, the accessories are books, blackboards, and stationery. This board is made of heart sponge and pasted with sticker paper.

3.4 Expert validation

Expert validation was conducted to obtain feedback on the feasibility of the developed MALIKA board learning media product. Product validation was carried out by two experts, namely, material and media experts. Validation tests have been carried out in February 2023. The results of the validation of media experts are described in Table 4.

Table 4. Media Expert Feasibility Test Results

Instrument Type	Eligibility Indicator Compliance with Media Concept	Score		Average	Category
		V1	V2		
Learning Media Expert Validation	Writing text, word or language, design. coloring, graphics, material, adaptating technologies	85	82.5	83.75	Good

Based on the assessment of the two media experts, the final score was 83.75. This figure shows that the developed media products are in the appropriate category from the perspective of the feasibility of learning media. The assessment of the feasibility of the MALIKA board learning media by material experts is assessed based on five aspects, namely aspects of the suitability of the media with the curriculum, material content, learning, language, and efficiency. Data on the results of the assessment by two material experts can be seen in the following Table 5.

Table 5. Feasibility Test Results of Material Experts and Practitioners

Instrument Type	Eligibility Indicator Compliance with curriculum	Score		Average	Category
		V3	V4		
Elementary Material Expert Validation	Conformity with curriculum, content, learning, language, and efficiency	75	82	78,5	Good

Based on the assessment of the two material experts above, a final score of 78.5 was obtained. This figure shows that the developed media product is in the feasible category in terms of material feasibility.

3.5 Implementation Stage's

The fourth stage is implementation. This involves conducting a field trial of the MALIKA board media based on validation results in grade IV elementary school writing lessons. The field trials test the developed products in the classroom to gauge user response. The implementation stage consists of two trials: limited trials and small group trials. The first trial, a limited trial, was conducted with three students of varying abilities. These students are fourth graders at an elementary school in Mataram City, and the trial took place on Saturday, April 13, 2024. The limited trial aimed to gather student responses to the MALIKA board media product. The results of this trial are shown in Table 6.

Table 6. Limited Trial Results

Assessment aspects Media Display Aspect	Assessment			Average	Category
	Student A	Student B	Student C		
Content Aspect	75	80	85	80	Good
Assessment aspects	80	85	90	85	Good

Based on the students' responses from the first trial, the final scores were 80 for the display aspect and 85 for the content aspect. These scores indicate that the developed media product is considered very feasible in terms of appearance and material. The second trial, a small group trial, was conducted with six

students of varying abilities. These fourth graders from an elementary school in Mataram City participated on Saturday, May 4, 2024. This trial aimed to gather student responses to the revised MALIKA board media product, based on feedback from the limited trial. The results of the small group trial are shown in Table 7.

Table 7. Small Group Trial Results

Assessment aspects Media Display Aspect	Assessment						Average	Category
	Student A	Student B	Student C	Student D	Student E	Student F		
Content Aspect	75	80	75	78	82	85	80,4	Good
Assessment aspects	82	84	84	82	80	90	84,4	Good

Based on the student responses above, the final score was 80,4 on the aspect of appearance, and the value of 80,4 on the aspect of the content of the material. This value indicates that the developed media product is in the very feasible category in terms of appearance and material.

After the results of limited field testing and small-group trials, an effectiveness test was conducted. This test is also known as a large-scale trial. The Malika product was tested on a larger group of 31 fourth-grade elementary school students. The results of the trial are shown in Table 8.

Table 8. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pretes	31	35	90	64.03	20.017
Postes	31	45	95	72.58	14.016

The pretest data shows that the lowest score obtained by students is 35 and the highest score is 90. The average obtained is 64.03. The standard deviation of the pretest data is 20.017. The postest data shows that the lowest score obtained by students is 45 and the highest score is 95. The average obtained is 72.58. The standard deviation of the pretest data is 14.016.

Before conducting a hypothesis test, a prerequisite test, namely a normality test, is required. The normality test was conducted using the Sapphiro-Wilk test because the sample size was <50. The results of the normality test are shown in Table 9.

Table 9. Tests of Normality

	Shapiro-Wilk		
	Statistic	**df**	**Sig.**
Pretes	.897	31	.006
Postes	.951	31	.171

The results of the normality test indicate that the pretest scores are not normally distributed (0.006 <0.05). Meanwhile, the posttest scores are normally distributed (0.171>0.05). The results of the normality test indicate that the hypothesis test cannot be continued through parametric testing. Therefore, the test was carried out through a nonparametric test with the Wilcoxson test. The results are in Table 10.

Table 10. Wilcoxson Test

	Postes - Pretes
Z	-4.011[b]
Asymp. Sig. (2-tailed)	.000

The results of the Wilcoxson test show that the calculated Z value is 4.011 with a Z table value of 1.96 (α = 0.05). This means that the calculated Z value> Z table (4.011> 1.96). In addition, the significance level obtained is 0.000 and less than 0.05. The test results state that there is a significant influence between the application of MALIKA media and the knowledge of fourth grade students about careers and professions. In other words, students' awareness of careers has increased with the implementation of MALIKA media in classroom learning.

4. DISCUSSION

This study aimed to develop the MALIKA board learning media for fourth grade elementary school students. The form of media is a flannel board equipped with material related to the profession according to the aspirations of students. The development model used is the ADDIE (Analyze, Design, Develop, Implement, and Evaluation) model, with the experimental subjects being two learning media experts, one counseling guidance material expert in elementary schools, and one fourth grade elementary school teacher. The initial stage was to develop 1 set of MALIKA board media boards with 6 packages of professional material cards and a prototype equipped with a manual for using the learning media.

Learning media are devices used to assist teachers in learning. The media is used by the teacher to clarify the material being taught (Vebrianto & Osman, 2011). Media helps teachers to understand the material and concrete students' understanding of the material (Sangsawang, 2015). Based on the results of the assessment by media experts, the MALIKA board received an average score of 83.75. These results indicate that the MALIKA board media is feasible for learning. This is because, based on the assessment of material experts, MALIKA board media met the criteria of good media. The criteria in the selection of learning media by (Smaldino et al., 2014) are: (1) functional or suitable with learning objectives and supporting their achievement; (2) available means that the media is there and available when needed/easy to make or find; and (3) cheap means that it does not require too much money to procure or use it; and (4) attractiveness is the ability of a medium to attract students' interest and motivation to learn. This media also meets the eligibility criteria for learning media that adapts technology in the form of QR-Code scan based audio which helps students better understand the material through strengthening professional explanations through audio (Insani et al., 2023; Razak, 2013).

The expert assessment stated that the MALIKA board media was in accordance with the applicable curriculum. In this case, the learning media is in accordance with the competencies, and the learning objectives for fourth-grade elementary school are related to professional understanding. So that MALIKA board learning media can be used to explain material about the profession in accordance with the demands of the curriculum (Seel & Dijkstra, 2004; Zuković & Slijepčević, 2022).

Other aspects that support writing text, words, language, and color selection can motivate students. According to expert judgment, the media is appropriate in terms of color selection and text selection. Text and color are important aspects because they affect students' motivation to participate in learning. The text determines students' absorption and understanding of the material being studied. Color provides its own charm, because color will affect students' willingness to use media as learning aids (Kesehatan Gigi et al., 2022; Kumi et al., 2013; Yang et al., 2014).

The last is the ease and affordability of costs in media procurement. Cheap and expensive materials in the procurement of media also determine the quality of learning media. In a sense, it's not that the more expensive the material, the better the media. But more on the affordability of the provider in this case the teacher in making media. If the media is cheap and easy to obtain and use, the possibility for teachers to reproduce the media is also higher. So that the implication is that in class, students get convenience in using the media so that understanding of the material also increases (Kelchner et al., 2019; Smaldino et al., 2014).

This MALIKA media has also adapted technological developments in its use. Learners can access a voice version of each explanation of the material through their smartphone. This convenience allows students to be more attractive and motivated to learn every material provided. This technology adaptation is also an effort so that students can use their gadgets in a more positive direction, namely supporting their learning activities in the classroom (Bunari et al., 2024; Insani et al., 2023; Smaldino et al., 2014).

Malika can be implemented both online and offline. If MALIKA is implemented in areas with poor network quality, namely: (1) using a government-provided smartboard as a means of playing audio and video; (2) using an LCD projector to display video and supporting audio; or (3) sending images, audio, and video to student devices if possible.

The material expert's assessment also showed similar results. The material expert gave a score of 78.5 at the appropriate level. This shows that the material in the media is in accordance with the curriculum and allows the media to improve students' understanding (Mar'atussolichah et al., 2024). This is in accordance with the benefits of the media. Research by (Bunari et al., 2024; Kusuma et al., 2022; Shin & Lee, 2021) state that there are at least four benefits in using instructional media, namely: (1) learning becomes more and more interesting so that students are more motivated; (2) clarifying the content of teaching materials so that the contents of learning can be understood by students more quickly; (3) teaching methods will be more varied; and (4) students are more directly involved in learning.

This is also supported by the results of field trials. In limited trials and small group trials, scores of 80 were obtained in the visual aspect and 84 in the material aspect. This shows that according to students the media is interesting and the material is easy to understand (Ni 'matuzahroh et al., 2020; Tran-Duong, 2021). The more attractive the appearance of the media, the more students' motivation in learning the material in it will increase (Kusuma et al., 2022). Attractiveness will focus students' attention so that learning objectives are achieved optimally. When students' attention is focused, it is possible for students to study and read all the material. This allows students' understanding of the material to also increase (Mar'atussolichah et al., 2024; Vebrianto & Osman, 2011).

The MALIKA media product developed has also been statistically proven to strengthen students' knowledge and insight about careers. The Wilcoxson test results show that the calculated Z value of 4.011 is greater than the Z table of 1.96. This means that the MALIKA media is effective in helping students recognize various careers or professions they can aspire to. Attractive media, its appearance, and technological assistance enable students to understand the material presented more effectively (Latifah & Susanti, 2023). Technology allows students to access information more quickly and easily so they can easily strengthen their understanding and knowledge.

In addition to the theoretical aspect of the media, the results of the material expert's assessment also illustrate that MALIKA board learning media can be used as a medium to guide elementary school students. The media in question is to raise student awareness regarding the importance of the profession, description of responsibilities, educational paths that must be taken, risks and responsibilities, and the amount of income that can be earned. This is important considering the profession is an important thing (Jeon et al., 2022; Lai et al., 2024). If students are guided from an early age, it is possible that students will be able to make the right choice of profession (Agoes Salim et al., 2023; Cojocariu & Cojocariu, 2015). This requires the attention of all parties, especially teachers. Therefore, MALIKA board is present as an alternative media to foster students' understanding of the profession, as well as complement the duties and roles of teachers as counselors in elementary schools (Bukoye, 2019).

5. CONCLUSION

The expert feasibility test results, involving two learning media experts, one elementary counseling guidance material expert, and one practitioner, indicated that the MALIKA board media is highly feasible according to media, material, and practitioner evaluation. This is evidenced by the high percentage of ratings in the very feasible category. The media was also tested on nine fourth-grade students who responded positively to its appearance and content. The results of the effectiveness test on 31 students also showed that MALIKA media was statistically proven to strengthen students' awareness of career understanding. Thus, the MALIKA board is deemed very feasible for teaching fourth-grade students about professions. However, the study had limitations, including specific material constraints on the "Cita-Citaku" theme and the scope of testing, which was limited to small-group trials. Future research should involve larger groups to further assess the effectiveness of MALIKA board media.

Ethical Approval
This research involved students and technology; therefore, ethical approval was obtained from the principal and school committee. Approval was granted through a letter of permission from the principal and head of the school committee. Approval included permission to involve students as research subjects and to use smartphones for learning. Student consent was obtained through a letter of parental consent from the class teacher.
Cell phone use was limited to less than 20 minutes, thus meeting the screen time threshold. Photos, documentation, and videos from the research were used only as supporting data and therefore not widely published (limited documentation).

Informed Consent Statement
This research did not require informed consent

Authors' Contributions
HS and AKH contributed to the conceptualization of the study. HS, AF, and IE collaborated on the methodology. HS, AKH, and HHS performed the validation and formal analysis. HS, AKH, and AF wrote the original draft and reviewed and edited the manuscript.

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No potential conflict of interest was reported by the author(s).

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The data presented in this study are available on request from the corresponding author due to privacy reasons.

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