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Development of KARIN (Indonesian Youth Work) Application on Student Creativity

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Abstract: *This study aims to form a creative dimension in students by using the KARIN application (Indonesian Youth Work). This application is expected to be able to form a creative dimension in students. The KARIN application (Indonesian Youth Work) is an android application that functions to channel students' ideas by writing simple articles. This application has 4 screens, namely the Main Screen which contains instructions for using and starting the application. The second screen is the main screen which displays two options, namely the copyright of the work and the collection of works. The third screen, when students select copyrighted works, they will be transferred to select copyrighted works, namely students write what they want to write. The last screen contains a collection of works, students can see the results from one friend to another. This study uses the R&D method using the 4D approach which is condensed into 3D. The tests carried out in this study were media tests and application effectiveness tests. The media test gets a score of 81 with a very valid category. The effectiveness test got a score of 67.52, this value is included in the good category.*

Keywords: *Creativity, Independent Curriculum, Kodular.*

Abstrak: *Penelitian ini bertujuan untuk membentuk dimensi kreatif pada mahasiswa dengan menggunakan aplikasi KARIN (Karya Remaja Indonesia). Aplikasi ini diharapkan mampu membentuk dimensi kreatif pada mahasiswa. Aplikasi KARIN (Karya Remaja Indonesia) merupakan aplikasi android yang berfungsi untuk menyalurkan ide mahasiswa dengan cara menulis artikel sederhana. Aplikasi ini memiliki 4 layar, yaitu Layar Utama yang berisi petunjuk penggunaan dan memulai aplikasi. Layar kedua adalah layar utama yang menampilkan dua pilihan, yaitu hak cipta karya dan kumpulan karya. Layar ketiga, ketika mahasiswa memilih hak cipta karya, maka akan dialihkan untuk memilih karya yang berhak cipta, yaitu mahasiswa menulis apa yang ingin ditulis. Layar terakhir berisi kumpulan karya, siswa dapat melihat hasil karya dari satu teman ke teman lainnya. Penelitian ini menggunakan metode R&D dengan menggunakan pendekatan 4D yang dipadatkan menjadi 3D. Pengujian yang dilakukan pada penelitian ini adalah uji media dan uji efektivitas aplikasi. Uji media mendapatkan skor 81 dengan kategori sangat valid. Uji efektivitas mendapatkan nilai 67,52, nilai ini termasuk dalam kategori baik.*

Keywords: *Kreativitas, Kurikulum Independen, Kodular*

INTRODUCTION

Education is the process of conveying knowledge, skills, values, and cultural norms from the older generation to the younger generation. It is a systematic effort to develop individual potential and shape character, preparing them to play an active role in society and face life's various challenges. Education is the effort of an individual to learn various fields of knowledge as a preparation to shape one's human resources into excellent individuals (Maritsa, 2021).

Education is an effort made as a form of knowledge transfer from one generation to another (Rahman et al., 2022). Education is highly important for the progress of a nation. In Indonesia, education is mandatory for all Indonesian citizens, as written in Law Number 20 of 2003: "Education is one of the conscious and planned efforts to create a learning atmosphere and learning processes so that students actively develop their potential to have spiritual strength, control, personality, intelligence, noble character, and skills needed by themselves, society, the nation, and the state."

Education is a crucial foundation for individual development and the advancement of a nation. By understanding the importance of education, society can work together to create a quality and inclusive education system, providing equal opportunities for all individuals to develop their potential and achieve progress and innovation for a better world (Pristiwanti et al., 2022). Indonesia constantly makes improvements in the field of education to produce outstanding generations. One of the ways the government prepares an excellent generation is by changing the education

curriculum.

The curriculum in the field of education is crucial in developing outstanding generations (Putri, 2019). The curriculum can be updated to emphasize the development of critical, creative, communicative, and collaborative competencies for students. This aims to prepare students to face real-world challenges and enter the workforce.

The curriculum should reflect the needs and demands of current society and the job market. By updating the curriculum content, students can acquire knowledge and skills relevant to the times. Changes in the education curriculum must adapt to the future needs of students (Herlin, 2022). In the efforts to improve education in Indonesia, the curriculum has changed from 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004, 2006, to 2013 (Nabila et al., 2023). The change from the 2013 curriculum to the Merdeka (independent) curriculum is a government effort to prepare an excellent generation in the future (Angga, Cucu Suryana, Ima Nurwahidah, Asep Herry Hernawan, 2021). In 2022, the 2013 curriculum officially transitioned to the Merdeka curriculum. This change is made in an effort to shape an excellent generation. Within the Merdeka curriculum, there is a character profile expected to be applied to students, known as the Pancasila Student Profile. With the existence of the Pancasila Student Profile, it is hoped that students can prepare themselves for the digitization era (Firmansyah, 2023).

The Pancasila Student Profile in the Merdeka curriculum aims to create outstanding generations. The Profile comprises 6 dimensions expected in students: 1) Faithful and devoted to the

One Almighty God, 2) Independent, 3) Mutual cooperation, 4) Global diversity, 5) Critical thinking, and 6) Creativity (Rosmana et al., 2023). In the era of Industry 4.0, creativity is highly important for students in facing the era of digitization (Mery et al., 2022). Creativity plays a key role in creating innovation.

Creative students can generate new ideas and creative solutions to overcome various challenges faced by the nation. In the context of Pancasila, innovation is necessary to create positive changes in various development areas, such as the economy, technology, education, health, and more. In this dimension, children are expected to have a creative character. The current Merdeka curriculum applied in Indonesia already involves technology in its learning processes. In shaping creative dimensions, teachers can utilize technology as a medium to further develop students' creativity.

The Education world is now entering the era of 4.0. In this era, perspectives and learning activities utilize technology (Prasetyo & Trisyanti, 2018). Indonesia is currently in the midst of the 4.0 revolution, where technology is widely applied in various fields, from the economy to education. The Industrial Revolution 4.0 is characterized by several aspects: vertical integration in value chains and smart production systems, horizontal integration along value chains with supply chain partners, and accelerating technology-based business processes (Sutrisno, 2018).

The role of technology in the learning process is an effort to shape excellent human resources (Simanjuntak et al., 2020). Technology in the field of education significantly influences the learning process (Suminar, 2019). Technological advancements in education

can help improve the quality of education in Indonesia (Purnasari & Sadewo, 2020). One technological advancement is the emergence of web-based applications that teachers can utilize for the learning process, such as Kodular.

Kodular is a website with various features for easily creating applications (Djuredje et al., 2022). Kodular is a web-based application development platform that allows users to create mobile (Android) applications without traditional programming. Applications created on Kodular can aid in shaping creative dimensions in students in the current technology-dominated era.

RESEARCH METHODOLOGY

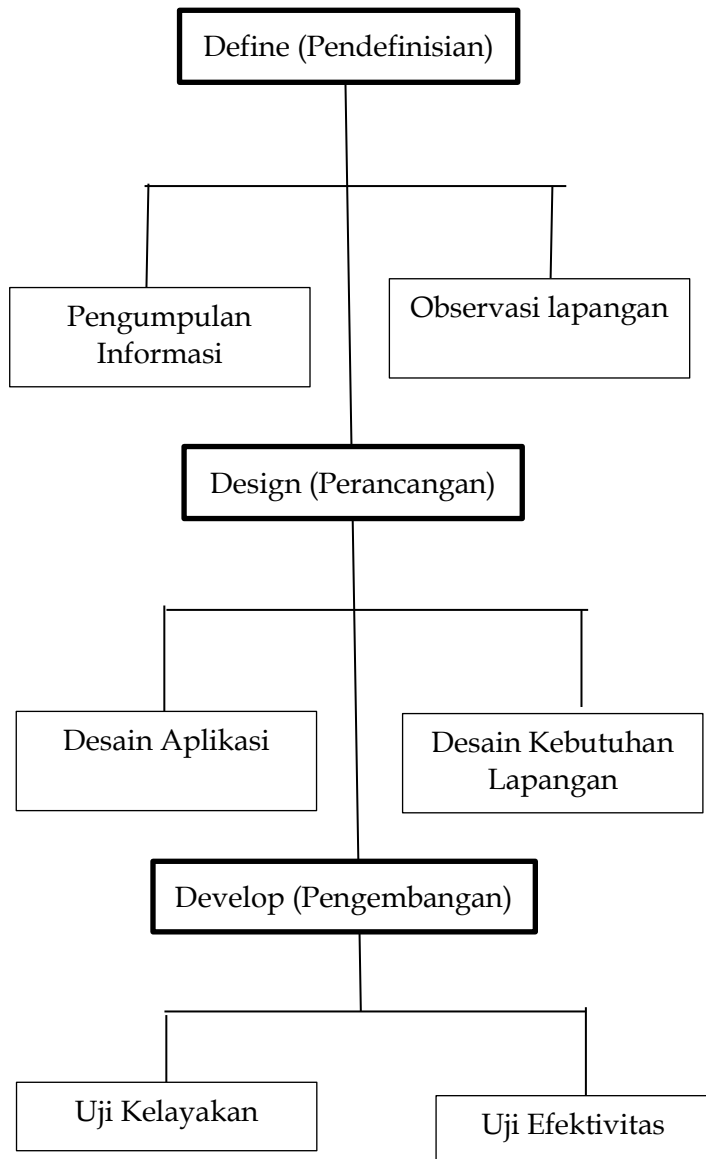
This research uses the R&D method, aiming to develop existing knowledge (Hanafi, 2017). R&D is a systematic process aimed at seeking, producing, and developing new knowledge, technology, or innovation that can contribute positively to improving the quality, efficiency, or effectiveness of a product, service, or process.

The approach in this research employs the 4D Approach, created by Thiagarajan. There are 4 stages in the 4D approach: Define, Design, Development, and Disseminate (Winaryati, 2021). In this research, the 4D approach is simplified into 3D: define (definition), design (designing), and develop (development). In the initial Define stage, the researcher analyzes and seeks information for appropriate development conducted at SMA Muhammadiyah 1 Surakarta, the research site.

The second stage is Design, where the researcher begins designing the KARIN (Youth Creations Indonesia) application as a medium for shaping the creative

dimension in students.

The final stage is Develop, in which the KARIN (Youth Creations Indonesia) application is produced and tested by media experts. The research process is conducted until the effectiveness of the application created by the researcher is evaluated.



Gambar 1. Desain Penelitian

The object of this research is the 10th-grade students of SMA Muhammadiyah 1 Surakarta. The research involves media experts to validate the application that will be used. The data collection method uses questionnaires regarding creative dimension

indicators and validity questionnaires by

Interval skor	Kriteria
81,25 < skor ≤ 100	Sangat Baik
62,50 < skor ≤ 81,25	Baik
43,75 < skor ≤ 62,50	Cukup Baik
25 < skor ≤ 43,75	Tidak Baik

media experts, and then the results are quantitatively calculated. The calculation of the student questionnaire is computed using the following formula:

$$\text{Nilai} = \frac{\text{Skor maksimal}}{\text{Skor yang di peroleh}} \times 100$$

Tabel 1. Kriteria Angket Dimensi Kreatif

The KARIN (Youth Creations Indonesia) application based on Kodular is considered effective if, in the questionnaire analysis, it attains a minimum score of 62.50, categorized as good.

FINDING AND DISCUSSION

The research findings conducted using the simplified 3D approach, with stages of define, design, and develop, are as follows:

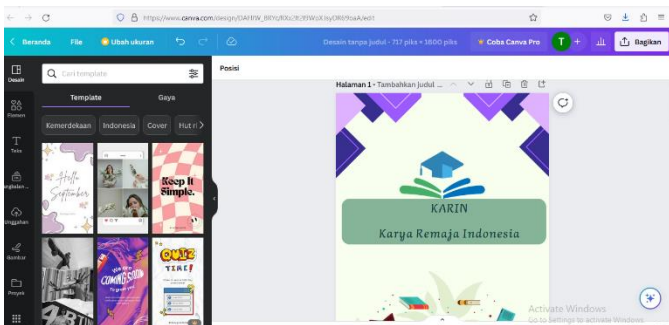
3.1 Define (Definition)

In this phase, the researcher analyzed the media used in learning that supports the formation of the creative dimension in the school. The researcher conducted a literature review to gather information and knowledge related to the issues or opportunities being researched. The literature review helped understand existing knowledge and identify gaps that need further investigation. The media used in the school to shape the creative dimension involves the use of the Canva application. It is anticipated that through the use of the Canva application, students can develop their creative dimension. Additionally, the teachers teaching the 10th grade already use media to shape the creative dimension. Apart from using Canva as a tool to produce work, teachers also provide videos to students to enhance their understanding of the taught material.

3.2 Design

In the Design phase, the KARIN (Youth Creations Indonesia) application, based on an

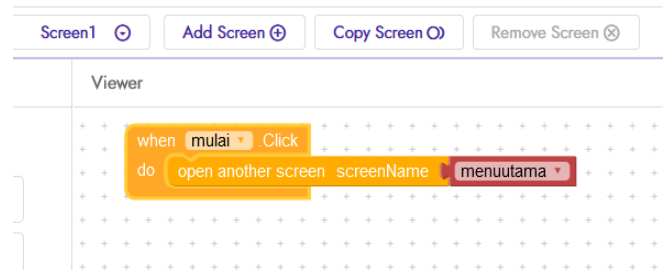
application, was designed as a tool to shape the creative dimension by producing original works. The application was designed to be lightweight and not take up much storage space on the students' mobile phones. This application aids students in expressing their ideas in written form. The initial phase of the design involved preparing the images that would appear on the initial menu, created through Canva. The second phase involved preparing what would be included in the application. The application consists of 4 screens. The first screen is the main menu, where upon opening the application, students are presented with the main menu to begin using the application, and instructions on how to use it. Following the main menu, the second screen contains details about the main menu. Within the main menu, there are two options: one for writing and another for viewing previously written work within the application. The third screen, for students choosing this menu, leads them to write their ideas within the application. The final screen contains a collection of creative works produced by the students.



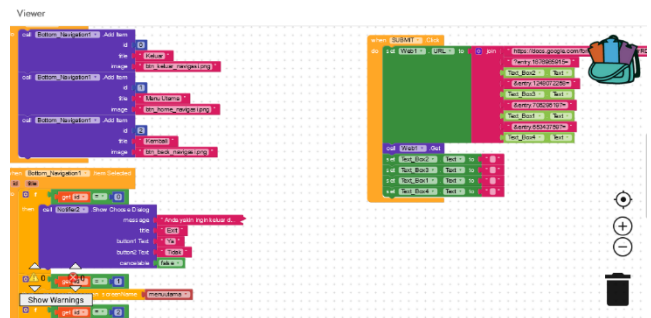
Gambar 2. Desain Cover Aplikasi



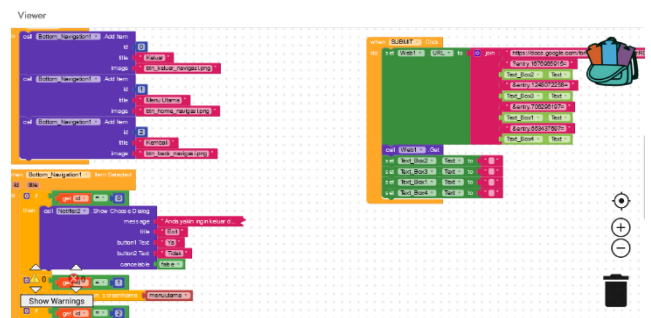
Gambar 3. Desain Aplikasi



Gambar 4. Blok Menu Awal



Gambar 5. Blok Menu Awal



Gambar 6. Blok dan Tampilan Karya Cipta



Gambar 7. Tampilan Aplikasi Utama

the analysis diagram of the questionnaire items.

3.3 Develop (Pengembangan)

In this phase, the completed application was developed and evaluated by 2 media reviewers, namely Prof. Harsono, MS, and Aprilia Saraswati, S.Kom. The media review consists of 20 questions/items with a scoring scale from 1 to 5. Below is the table of the media expert assessment criteria.

Table 1. Kriteria Penilaian

Interval Skor	Kriteria
80 < Skor ≤ 100	Sangat Valid
60 < Skor ≤ 80	Valid
40 < Skor ≤ 60	Cukup Valid
20 < Skor ≤ 40	Tidak Valid

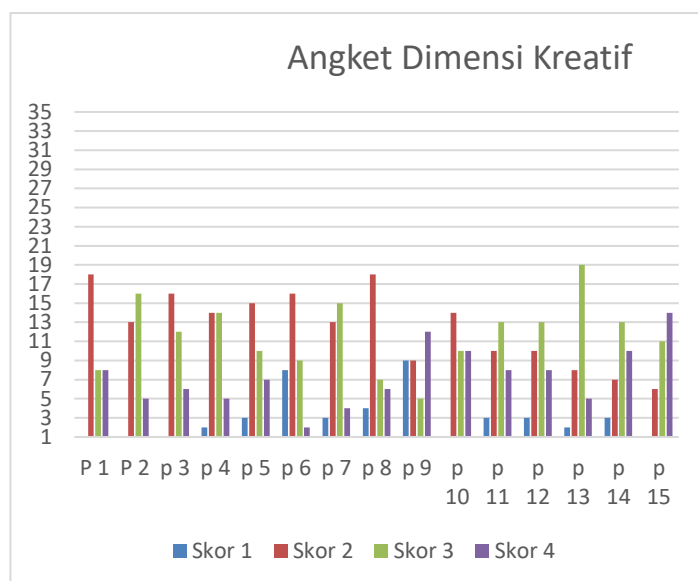
The application that has been tested by media experts obtained a total score of 81. This result falls within the category of "very valid." Based on the evaluation by media experts, the application can be used by students. Here is the validation result from the validator.

Table 2. Hasil Validator

Validator	Jumlah Skor	Kriteria
1	83	Sangat Valid
2	80	Sangat Valid
Rata-Rata	81	Sangat Valid

The application, which has been evaluated by media experts, was applied to 10th-grade students at SMA Muhammadiyah 1 Surakarta, with a sample size of 35 students. The questionnaire consisted of 15 items rated on a scale of 1-5. The questionnaire distributed to the students at SMA Muhammadiyah Surakarta revealed that, on average, students responded that the Kartuin application helped in shaping the creative dimension of the students. Here is

Diagram 1. Analisis angket



In the questionnaire analysis conducted, the average score obtained concerning the effectiveness of the Karin application in shaping the creative dimension of the students is 67.52. The questionnaire distributed among the students consisted of indicators for the creative dimension. Based on the distributed questionnaire results, it is concluded that the use of the KARIN (Youth Creations Indonesia) application can shape the creative dimension at SMA Muhammadiyah 1 Surakarta.

The discussion reveals a series of research studies focused on the formation of students' creativity and the various methodologies, approaches, and tools used to enhance their creative abilities in educational settings.

Research conducted by Du et al. (2019) found that intrinsic motivation mediated the positive relationship between Creative Fit to Task Behavior (CFTB) and students' creative achievement in science activities. Moreover, they highlighted that openness to experience moderated this relationship, indicating that the mediating effect of intrinsic motivation was

significant for students with high openness to experience.

Chen et al. (2022) discussed the efficacy of project-based learning in promoting students' creative thinking, particularly in fluency and flexibility. They emphasized the significance of suitable creative thinking tools in significantly enhancing students' creativity, suggesting the necessity of providing diverse creative thinking tools to foster habits of creative thinking.

Zulhandayani (2023) mentioned the utilization of the Canva application by teachers to enhance student creativity through Project-Based Learning. The study indicated that the implementation of Project-Based Learning, supported by the Canva application, effectively enhanced students' creativity.

Another study by Rasyidah & Kusmarni, M.Pd (2020), revealed that the application of creating storyboards via storyboardthat.com enhanced students' creativity in history lessons. Their research evidenced a substantial increase from 17% to 91% in the third cycle, indicating that the application significantly contributed to enhancing student creativity.

Mahfud (2017) asserted that children's creativity is shaped through organized and well-planned thinking processes, resulting in new ideas or objects. Creativity is the ability to combine various information in new ways to find solutions, make new discoveries, or create art. Thinking can be done by anyone, anytime, and anywhere.

Wardana & Nurfuadi (2023) conducted research indicating that students' creativity can be developed through role-playing methods at SD Alam Perwira, Purbalingga. The application of this method resulted in students enhancing various forms of creativity, including imaginative, linguistic, mathematical, and

artistic creativity.

Furthermore, research conducted by Ratih & Yanuartuti (2021) showed that giving students the freedom to determine the format of their assignments leads to the development of their creativity. By allowing students autonomy in determining the form of task submissions, the research revealed the enhancement of students' creativity.

CONCLUSION

The formation of the creative dimension in students can utilize the Kartuin application (Children's Writings of Indonesia), as evidenced by the questionnaire distributed to the students. The questionnaire, consisting of creative dimension indicators, obtained an average score of 67.52. This score falls within the category of "good," indicating that the Kartuin application can be utilized by teachers to shape the creative dimension in students.

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