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Koditako Media (Digital Comics of Economic Activities) in IPAS for Fourth-Grade Students

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ABSTRAK

Penggunaan media pembelajaran yang kurang bervariasi dan menarik mengakibatkan siswa kurang tertarik pada pembelajaran sehingga membuat hasil belajar siswa menjadi rendah. Penelitian ini bertujuan menganalisis pengembangan, kelayakan, dan keefektifan media Koditako dalam meningkatkan hasil belajar siswa pada materi kegiatan ekonomi mata pelajaran IPAS. Penelitian ini adalah Research and Development (RnD) yang mengacu model ADDIE. Subjek penelitian ini terdiri dari ahli materi, ahli materi, ahli bahasa, guru kelas IV dan siswa kelas IV yang berjumlah 19 siswa. Data dikumpulkan dengan melakukan observasi, wawancara, kuesioner, dan tes. Analisis data menggunakan analisis deskriptif kualitatif dan kuantitatif. Hasil uji validasi para ahli serta respon guru dan respon siswa mendapatkan kriteria sangat layak. Uji T-test mengindikasikan bahwa antara nilai rata-rata pretest dan postest terdapat perbedaan yang siginifikan. Uji N-Gain dengan kriteria sedang menunjukkan adanya peningkatan hasil belajar siswa sesudah memakai media Koditako. Disimpulan media Koditako sangat layak dan efektif dalam meningkatkan hasil belajar IPAS materi kegiatan ekonomi. Implikasi dari penelitian ini yaitu mempermudah siswa dalam memahami materi pembelajaran IPAS tentang kegiatan ekonomi sehingga hasil belajar siswa dapat meningkat.

ABSTRACT

The use of learning media that is less varied and exciting results in students being less interested in learning, resulting in low student learning outcomes. This research aims to analyze the development, feasibility and effectiveness of Koditako media in improving student learning outcomes in the economic activities material in the science and science subject. This research is Research and Development (RnD), which refers to the ADDIE model. The subjects of this research consisted of material experts, material experts, language experts, class IV teachers and class IV students totalling 19 students. Data was collected by conducting observations, interviews, questionnaires and tests. Data analysis uses qualitative and quantitative descriptive analysis. The results of expert validation tests and teacher and student responses obtained very appropriate criteria. The T-test indicated a significant difference between the pretest and post-test average scores. The N-Gain test with moderate criteria shows increased student learning outcomes after using Koditako media. It was concluded that Koditako media is feasible and effective in improving learning outcomes for "IPAS" material on economic activities. The implication of this research is to make it easier for students to understand science learning material about economic activities so that student learning outcomes can improve.

1. INTRODUCTION

Education is the key to improving the standard of human life so that it can survive amid an increasingly developing life. Education can change a person's mindset to always make improvements and innovations in all aspects of life to improve self-quality (Kopnina, 2020; Shaturaev, 2021b; Umami, 2019). The advancement of the Indonesian nation hinges on education, as it plays a pivotal role in shaping a competent generation poised for a prosperous future, thereby enhancing the overall quality of life. The quality of a nation can be measured by its education quality. The nation will be more advanced if the quality of education is high (Pristiwanti et al., 2022; Shaturaev, 2021a). Without education, the Indonesian nation will be left behind by other countries (Budiharso & Tarman, 2020; Sudarmono et al., 2021). The quality of

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education can be improved through several aspects such as curriculum changes. The curriculum has a dynamic nature that is always changing and developing following the development and challenges of the times (Beerkens, 2018; Y. Rahayu, 2023). At this time, Indonesian education is using the Merdeka Curriculum.

The Merdeka Curriculum is intracurricular learning that optimizes content so that knowledge and skills can be learned in a sufficient amount of time (Aji, 2023; Sartini & Mulyono, 2022). Under the Merdeka Curriculum, students are granted the liberty to delve into their passions and capabilities. The curriculum aims to empower students to nurture and cultivate their potential (Kharimah et al., 2023; R. Rahayu et al., 2022). One of the changes and developments in the Merdeka Curriculum is the existence of Natural and Social Sciences (IPAS) learning. Natural and Social Sciences is a combination of science and social studies that used to be separated. Natural and Social Sciences consists of science and social studies concurrently. Natural and Social Sciences examines the interaction of living and nonliving things in the universe and human life as individual social beings interacting with their environment (Nababan et al., 2021; Suhelayanti et al., 2023). Natural and Social Sciences aims to give students an understanding of the role of science in overcoming social and environmental problems to answer future challenges (Alexander, 2020; Westbroek et al., 2020). Natural and Social Sciences learning aims to foster students' curiosity and sensitivity to everything in the environment, both natural and social events, around them so students' understanding of the events that happen in nature will be formed. Therefore, they can solve various problems that occur around them (Alexander, 2020; Suhelayanti et al., 2023). The importance of Natural and Social Sciences subject in elementary schools requires teachers to design effective and efficient learning to achieve the learning objectives optimally (Gede et al., 2020; Prasetya et al., 2020; Wuarlela, 2020).

Utilizing media in education enhances the effectiveness and efficiency of learning processes (Inayah, 2023; Qureshi et al., 2021). Learning media aids educators in engagingly delivering learning content, thereby stimulating student interest and facilitating a comprehensive understanding of the lessons (Wahyuningtyas & Sulasmo, 2020). The objectives of learning can be achieved by learning media used by teachers (Alenezi, 2020; Pamungkas & Koeswanti, 2022)**.** The way for students to be interested and understand the contents of the media, the media must be adjusted to the learning materials and student characteristics (Abdulrahaman et al., 2020; Budiyono, 2020). In fact, many teachers have not fully utilized learning media optimally. This can be known from observations and interviews with fourth-grade teacher of SD Negeri Proketen Bantul Regency. The results presented in this research showed that the learning media used by teacher in learning were less varied. The teacher mentioned that it was difficult if they had to make a particular learning media because it took time and money. Teachers also said that the lesson rarely used interesting learning media, they only used PowerPoint, pictures, videos, and books. The lack of variation and interesting learning media caused the students to be less interested in learning (Marwa et al., 2020; Udiani & Kristiantari, 2021) Students lacking interest in learning may struggle to grasp educational materials, leading to lower academic performance. Stimulating student interest in learning fosters active participation and ultimately improves learning outcomes. Decreased interest in learning correlates with diminished achievement in academic outcomes (Darmayanti et al., 2022; Wiradarma et al., 2021). The problems that researchers found had an impact on student learning outcomes and low student learning outcomes. Many of the students have not reached the criteria for achieving learning objectives (KKTP). Based on student learning outcomes in the Natural and Social Sciences subject content assessment states that of the total number of grade IV students at SDN Proketen, namely 19 students, there are 9 out of 19 students, or as many as 47% get scores above the criteria for achieving learning objectives (KKTP). Meanwhile, 10 other students or 53% have not yet reached the criteria for achieving learning objectives (KKTP).

The low student learning outcomes in IPAS subjects caused by the lack of use of interesting and varied learning media is the background of this research. Based on this situation, an interesting learning media is needed so that students are interested in learning so that student learning outcomes can improve. Therefore, the researcher developed varied and interesting learning media through technological enhancements. The learning media is Koditako media (digital comics of economic activities). The material developed in comic media is economic activity material. Comics are reading stories equipped with pictures and text conversations between the characters (Putra & Milenia, 2021; Rahmatullah et al., 2020). Comics, originally only in printed form, are currently being used in digital form so that digital comics appear. Digital comics are illustrated stories accompanied by certain characters and storylines that contain messages or information and are presented through electronic media digital comics can be accessed anywhere and anytime using electronic devices because the presentation is practically packaged, so students can use them easily (Juneli et al., 2022a; Rahmi et al., 2022). Comics are easily understood by students because comics convey messages or information clearly and simply. Moreover, elementary school students prefer to learn

material conveyed through images and short text (Dessiane & Hardjono, 2020; Hasanah et al., 2023). Therefore, comics can help students to understand learning material easily.

This development aligns with research showing that digital comic media was feasible for social studies learning in elementary schools because it could improve students' learning motivation and learning outcomes (Mirosunnaily & Pramudiani, 2021; Mulia & Kristin, 2023). Another study revealed that digital comics could foster the understanding of science concepts and students' learning motivation (Candrayani & Sujana, 2023; A. Rahayu et al., 2023). Further research stated that comic media effectively stimulates student learning motivation and improves learning outcomes in science subjects (Ferania & Wardani, 2022; Haryanto et al., 2023). In summary, digital comic media proves to be a viable option for integration into the educational journey, particularly in elementary school. This is attributed to its capacity to enhance student engagement, motivation, and ultimately, academic achievements. Based on these considerations, the researchers are interested in developing Koditako media (digital comics of economic activities). The difference between this research and previous research is that this research focuses on solving problems regarding the need for the use of more interesting and varied learning media, namely through the development of digital comics in Natural Sciences and Social Sciences subjects on the material of economic activities in class IV. This media can facilitate teachers in delivering learning materials effectively and students can understand the material on economic activities well, thus the learning outcomes of students can increase. The novelty of this research is that there has been no research that develops Koditako media (digital comics of economic activities) by combining image and story content based on the life of economic activities found in the environment around grade IV students of SDN Proketen, namely economic activities in tofu factories so that Koditako media can be utilized as an innovative learning media. The development, feasibility, and effectiveness of Koditako media (digital comics of economic activities) in improving student learning outcomes on economic activity material in Natural and Social Sciences subjects is the goal of this development research.

2. METHOD

This research is a type of Research and Development (R&D) research, which will result in products that have proven their validity and effectiveness (Adomako et al., 2021; Schlander et al., 2021). The ADDIE model was used to develop Koditako media which included 5 stages as follows: (1) The analysis stage, which conducts a needs analysis, student analysis, and curriculum analysis to identify potential and research problems; (2) The design stage involves designing products, learning module, and product assessment questionnaire instruments; (3) In the development stage, the product is developed according to the design at the previous stage, then the product validation process is conducted by experts, teacher, and students; (4) The implementation stage is to test the product and distribute response questionnaires to teacher and students; (5) The evaluation stage is to evaluate and improve media product that has been created.The ADDIE model was chosen as the development model because it is easy to understand and is considered suitable for developing Koditako media (digital comics of economic activities). The research subjects were as follows: (1) experts of material, media, and linguist; (2) fourth-grade teacher of SDN Proketen; and (3) 19 fourth-grade students of SDN Proketen. The material experts in this study were lecturers who are experts in the field of Natural and Social Sciences studies at the elementary school level, then media experts were carried out by lecturers who have the ability and knowledge of educational technology, and linguists were carried out by lecturers who are experts in the field of language at Semarang State University. In addition, the product was tested on one fourth-grade teacher of SD Negeri Proketen and 6 fourth-grade students with low, medium, and high achievement abilities.

The data was gathered using observation, interviews, questionnaires, and tests. The researcher conducted observations and interviews with teacher and fourth-grade students of SDN Proketen. This research used student and teacher needs, student and teacher responses, and expert validation questionnaires. Researchers observed the learning process carried out by teachers and grade IV students in the classroom to find out how the learning process took place. In addition to observations, researchers also conducted interviews with fourth-grade teachers to obtain information related to the learning process carried out every day and the problems experienced by students and teachers in the learning process. This study also used a student and teacher needs questionnaire, a student and teacher response questionnaire, and an expert validation questionnaire. The purpose is to find out the needs and responses of students and teachers to media products, the results of the assessment of media products by experts, and as a consideration in improving the developed media products. Then, the tests used are pretests and posttests to determine student learning outcomes before and after using the developed learning media.

The qualitative and quantitative descriptive analysis techniques are used in the data analysis of this research. The qualitative descriptive analysis processes information from qualitative data through

interview results, observations, and suggestions or responses obtained from questionnaires, while the quantitative descriptive analysis was conducted to calculate scores data from questionnaires and pretest and posttest learning outcomes. The questionnaire assessment includes validation of the experts of material, media, and linguists; and responses of teacher and students. The grids of assessment instruments used in Koditako media development are available in Table 1, Table 2, Table 3, Table 4, and Table 5. After that the questionnaire will disclose the answers of each respondent, and the results will be calculated to ensure the feasibility of Koditako media. The criteria in Table 6 can be used to decide the feasibility of Koditako media.

Table 1. The Material Expert Instrument Grid

Aspect	Indicator
Competence	Suitability of Natural and Social Sciences content material with learning outcomes
Compatibility	Suitability of Natural and Social Sciences content material with Koditako media
	Suitability of Natural and Social Sciences with learning evaluation
Feasibility	Feasibility of Koditako media
Language	Clarity of language on Koditako media

Table 2. The Media Expert Instrument Grid

Aspect	Indicator
Compatibility	Suitability of media with learning materials
Display	Visual display design
	Clarity of media components
Usage	Ease of use of media
Advantages	Ease of understanding the material using the media

Table 3. The Linguist Expert Instrument Grid

Aspect	Indicator
Compatibility	Appropriateness to the KBI
	Suitability to the development of students' thinking
Advantages	Language is easy for students to understand
	Communicative and informative language

Table 4. The Teacher Response Questionnaire Instrument Grid

Aspect	Indicator
Material	Suitability of material on Koditako media
	Clarity of material on Koditako media
Media	Visual display of Koditako media
	Media materials used
Language	The ease with which students understand the language used

Table 5. The Student Response Questionnaire Grid

Aspect	Indicator
Material	The ease with which students understand the material in the media
	Clarity and visual display of Koditako media
Media	The ease with which students understand the language used

Table 6. Koditako Media Feasibility Criteria

Percentage	Criteria
81 - 100%	Very Feasible
61% - 80%	Feasible
41 - 60%	Enough Feasible
21% - 40%	Less Feasible
0 - 20%	Not Feasible

The efficacy of the media can be assessed by testing pretests and posttests scores. These tests are utilized to measure the impact of Koditako media on enhancing student learning outcomes by using t-test analysis and N-Gain test on pretest and posttest scores. Before that, a normality test with the Saphiro-Wilk Test must be performed to decide the data belongs to a normal distribution or not.

3. RESULT AND DISCUSSION

Result

The ADDIE model is used for Koditako media development, where there are 5 stages. The analysis is the first stage, which aims to collect information that will be used as a basis for product development. The activities carried out at this stage consist of, (1) Needs analysis, researchers conducted interviews and observations with students and teachers of class IV SDN Proketen so that the obstacles found in the learning process were known. The analysis's results were less varied and interesting in terms of the learning media used in the Natural and Social Sciences subject, so students' interest in learning was low, which caused low student learning outcomes; (2) Student analysis, revealed that students easily get bored when learning science and technology because teachers use less interesting learning media. Students were more excited to learn if it used visual learning media and technology; (3) curriculum analysis, information is obtained that SDN Proketen uses the Merdeka Curriculum, so that the learning outcomes, learning objectives, and materials used in the media to be developed can be known. The material contained in the Koditako media is the Natural and Social Sciences subject in Chapter 7. How do we get all our needs? on Topic C. Buying and selling activities as one of the fulfillment of needs.

The design is the second stage. The Koditako media (digital comics of economic activities) are designed according to the results in the previous stage. The design involved the design of media product, media product assessment instruments, and learning modules. The design learning module includes learning steps, teaching materials, learning media namely Koditako, student worksheets, and assessment instruments. After that, the design of product assessment instruments includes media expert, material expert, and linguist assessment instruments, as well as student and teacher response questionnaires. Then, product design will be done by outlining the media content, including storyboards and storyline scripts.

The third stage is the development. At this stage, Koditako media is made by the design that has been determined at the design stage. Koditako media is made using various applications, including Smart Apps Creator, Procreate, ibisPaint X, and Canva. The first step was the creation of image illustrations and characters by sketching and coloring using Procreate and ibisPaint X applications. Image and character illustrations were adjusted to the compiled storyline scripts. The results are then converted and entered into the Smart Apps Creator application to add narration text, conversation text, and word balloons. The second step was the creation of other comic parts, such as covers, menus, and so on using the Canva application. The results of making Canva are also converted and entered into the Smart Apps Creator application, combined with the results of Procreate and ibisPaint X. The third step was adding features to Koditako media that make Koditako media interactive and interesting using the Smart Apps Creator application. The fourth step was to convert Koditako media into applications that students can access using electronic devices such as smartphones or laptops. The Koditako media display are displayed in Figure 1.

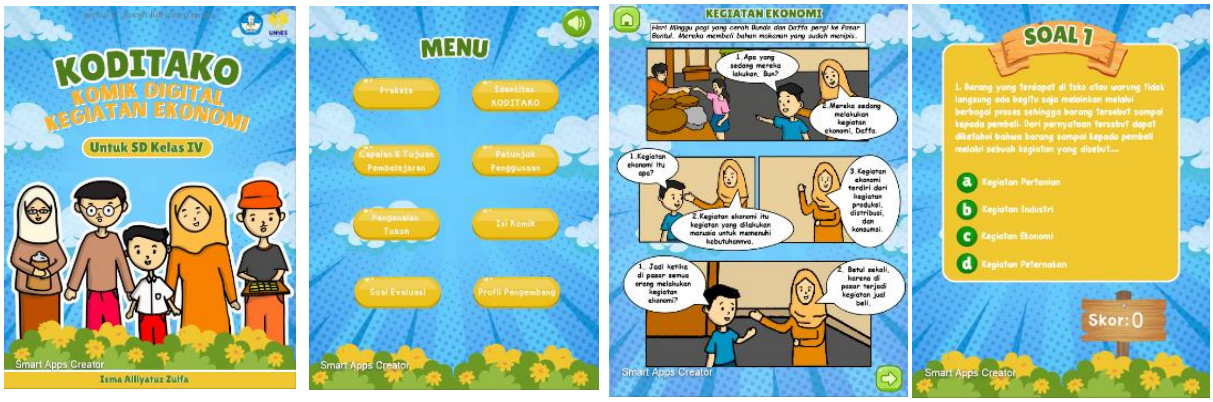

Figure 1. Koditako Media Display

Based on Figure 1, the developed Koditako media consists of a cover, comic identity, preface, menu, learning outcomes, learning objectives, use instructions, character introduction, comic content, and evaluation questions. The comic content section contains material on economic activities, namely

production, distribution, and consumption activities presented through illustrated storylines. At the end of each economic activity's story, conclusions related to the material discussed are presented. After the Koditako media was developed, the next step was to conduct validation tests by experts and responses of teacher and students. The feasibility of Koditako media will be known through the validation test. Table 7 and Table 8 present the detailed results of expert validation and teacher and student responses.

Table 7. Results of Koditako Media Validation Test by Experts

Expert	Percentage (%)
Material	86%
Media	93%
Language	92%
Average	**90.33%**
Criteria	**Very valid**

Table 8. Results of Koditako Media Responses by Teacher and Students

Test Subject	Percentage (%)
Small Group Trial	91%
Large Group Trial	90%
Teacher	92%
Average	**91%**
Criteria	**Very feasible**

Based on Table 7 and Table 8, the average product validation test by experts was 90.33% and the average response by teacher and students was 91%, which is in the range of 81% - 100% with very feasible criteria. Thus, Koditako media is suitable to be applied in Natural and Social Sciences on economic activities material. The fourth stage is the implementation. The developed product was tested on grade IV students of SDN Proketen with details of 6 students in the small group trial and 19 students in the large group trial. At this stage, students work on pretest and posttest. These results identify the effectiveness of Koditako media. The Koditako media was integrated into learning activities through a specially designed learning module. Before learning began, students were asked to answer pretest questions. This was done to determine student learning outcomes on economic activity material before using Koditako media in learning. After students finished the pretest questions, they learned using Koditako media. After the lesson was complete, students worked on posttest questions to determine student learning outcomes on economic activities material taught using Koditako media. Table 9 shows the results of both the pretest and posttest students.

Table 9. Student Pretest and Posttest Results

Test Subject	Pretest	Posttest
Small Group Trial	52.5	80.83
Large Group Trial	49.47	82.36

Based on Table 9, the pretest and posttest on small group trials obtained scores of 52.5 and 80.83, while in the large group trial, the scores of the pretest and posttest were 49.47 and 82.36. The fifth stage is the evaluation. This stage is useful to evaluate the learning media developed based on the suggestions given by the expert team to researchers. At this stage, the effectiveness of Koditako media is known with the analysis results of the T-test and N-Gain test. However, before both tests, data must be known whether it is normally distributed using a normality test with The Saphiro-Wilk Test assisted by SPSS version 24. Table 10 provides details of the normality test results.

Table 10. Normality Test Results

	Shapiro-Wilk	df	Sig
Pretest	0.928	19	0.157
Posttest	0.891	19	0.33

Based on Table 10, it can be revealed that in the small group trial, the Sig. value is 0.389 for the pretest and 0.804 for the posttest. The data is normally distributed because both values are higher than

0,05. After the data is recognized as normally distributed, the following testing step is the t-test was calculated with the paired sample t-test, assisted by SPSS version 24, as detailed in Table 11.

Table 11. Paired Sample T-Test Results

Pretest-Posttest	Mean	t	df	Sig (2-tailed)
Large Group Trial	-32.895	-9.003	18	0.000

Table 11 shows that the Sig. value is (2-tailed) 0.000 < 0.05, meaning that the average posttest and pretest scores of students are significantly different. Furthermore, the N-gain test was tested assisted by SPSS version 24 to find the improvement of students' pretest and posttest. Table 12 provides details on the N-Gain Test's results.

Table 12. N-Gain Test Results

Class	Average		N-Gain	Criteria
	Pretest	Posttest		
Large Group Trial	49.47	82.86	0.683	Medium

Based on Table 12, it is presented that the N-Gain value is 0.683 within the medium range. This indicates a medium improvement in the study scores of grade IV students of SDN Proketen following the utilization of Koditako media in the Natural and Social Sciences subject, specifically in economic activities material.

Discussion

This development research develops a learning media namely Koditako media (digital comics of economic activities) for grade IV students of Natural and Social Sciences subject material on economic activities. This media was developed to help students understand the material on economic activities so that student learning outcomes increase. Koditako media was developed using the ADDIE model. This development research provides results that Koditako media is effective and very feasible to utilize in Natural and Social Sciences subject on economic activities material. There are several aspects that determine Koditako media is effective and very feasible to use in Natural and Social Sciences subject on economic activities. The first aspect, Koditako media is suitable for use in Natural and Social Sciences subject to economic activity material. This is supported by the assessment of material experts who obtained an assessment of 86% with very feasible criteria. The Koditako media was developed according to the learning outcomes, learning objectives, and materials determined. The story presented in the Koditako media was developed using learning material economic activities. The evaluation questions used are by the predetermined question indicators and are from HOTS questions. In addition, the content of Koditako media stories from the environment around students so the Koditako media content is easily understood by students because it raises stories that are in the lives of students (Rachmavita, 2020; Suryana et al., 2021). This is the purpose of Natural and Social Sciences in elementary schools, such as to foster students' curiosity and sensitivity to everything in their surroundings, both natural and social events, so the understanding and knowledge of the concept of Natural and Social Sciences will be formed and applied in everyday life (Suhelayanti et al., 2023; Winarni et al., 2020). Therefore, Koditako media developed by learning outcomes, objectives, and materials and involving the lives around students, will help students understand the material on economic activities.

The second aspect is that Koditako media has an attractive appearance. This is supported by the assessment of media experts who get an assessment of 93% with very feasible criteria. The image illustrations used by Koditako media are very interesting, so students are more motivated to learn the contents of the comics. Students tend to like colorful picture books visualized in realistic or cartoon (Farsa et al., 2022; Rusmaini, 2023). Comics media is presented with illustrations of images that will attract students' attention and help students remember learning material for a longer time (Paramita et al., 2022; Senen et al., 2021). Image illustrations are adjusted to the story contained in the Koditako media so that students know the intended concrete form of material. Digital comics are concrete learning media because they present a concrete picture of the story with pictures and interesting stories that can be used anywhere and anytime (Wibowo & Koeswanti, 2021; Wicaksono et al., 2021). Comics can help students understand learning material because comics turn abstract material into concrete. (Febriyandani & Kowiyah, 2021; Radeswandri et al., 2021). The Koditako media will help students understand the material on economic activities by presenting an illustrated storyline and turning abstract material into concrete. The concrete

operational stage is the stage experienced by elementary school students which is characterized by students being unable to imagine something abstract because students still learn through concrete objects (Andriyani & Kusmariyatni, 2019; Hutasuhut & Armanto, 2022)**.** In addition, Koditako media is interactive, students can operate the media themselves so that there is a two-way interaction between students and Koditako media. This certainly provides students with a new learning experience so the material will be easier to remember (Daniel T. Willingham, 2021; Suharti et al., 2023).

The third aspect is the language contained in the Koditako media in according with elementary school students' language development. This is evidenced by the assessment of linguists who get an assessment of 92% with very feasible criteria. Koditako media uses language compatible with elementary school students' language skills. The language contained in the text and dialogue of Koditako media uses simple language and is commonly used in everyday life so that the content of the media can be understood by students easily (Aprilla, 2020; Zakiyah et al., 2022). Additionally, the language used is also communicative so that the contents of the comic can be received by students well (Puspitasari & Rodiyana, 2022; Sanjayanti et al., 2020). The fourth aspect is that Koditako media effectively make student learning outcomes improve in Natural and Social Sciences subject, especially on economic activity material. This is supported by the T-Test, which received a Sig. (2-tailed) 0.000, meaning that the average posttest and pretest scores of students are significantly different. Additionally, the N-gain test resulted in 0.683 with medium criteria, indicating an improvement in student learning outcomes after using Koditako media, so it was concluded that Koditako media effectively improves the learning outcomes of fourth-grade students on economic activities material in Natural and Social Sciences subject. The results obtained in this study are in accordance with the results of previous studies, which state that digital comics are effective in improving student learning outcomes in Natural and Social Sciences learning. Other research also states that contextual-based digital comic media effectively improves students' cognitive learning outcomes in science subjects (Rina et al., 2020; Umairoh & Amaliyah, 2022).

Based on several previous studies, it can be concluded that the development of digital comic media has good results and is suitable for use in learning. This is supported by previous research, which states that digital comics have high qualities and are appropriate for learning (Narestuti et al., 2021; Supartayasa & Wibawa, 2022). Further study indicates that factual-based digital comic media is feasible and can increase student learning results (Sebayang et al., 2023; Wulansari et al., 2022). Other research has found that developing digital comic media is practical and beneficial in scientific learning because it improves students' conceptual knowledge (Juneli et al., 2022b; Priyangga et al., 2022). This development research gives implications for the production of Koditako media, which are hoped to be utilized by teacher and students in learning activities. For example, Koditako media can be used in Natural and Social Sciences class IV on economic activity material, which can help students understand learning materials, thus student learning outcomes increase. The novelty of this research is that it has Koditako media content that raises economic activities that exist in the lives of fourth-grade students of SDN Proketen, making learning materials easily accepted and remembered by students. The Koditako media that are accessed using technology provide a new learning nuance in learning activities because they use more varied and interesting learning media. There needs to be further development of Koditako media so that Koditako media becomes better, more interesting, and more informative. Therefore, Koditako media can be an interesting learning media that can help students understand the material on economic activities to increase student learning outcomes.

4. CONCLUSION

Based on the results of the development research, Koditako media (digital comics of economic activities) is very feasible and effective for grade IV students of SDN Proketen in the subjects of Natural Sciences and Social Sciences on the material of economic activities. This statement is supported by the validation test by experts on Koditako media, which received very feasible criteria. Then, the effectiveness of Koditako media in improving student learning outcomes is proven by the T-test. In addition, there was an increase in student learning outcomes in moderate criteria. The conclusion that can be drawn is that Koditako media is very feasible and effective for improving the learning outcomes of grade IV students in Natural Sciences and Social Sciences subjects on the material of economic activities.

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