

CONTEXTUAL TEACHING AND LEARNING-BASED TEACHING MATERIALS TO IMPROVE FINANCIAL LITERACY AMONG ELEMENTARY SCHOOL STUDENTS

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ABSTRACT

This study was motivated by the fact that fourth-grade elementary school students often have difficulty understanding the concepts of needs and wants, as well as the value of currency and its functions. The purpose of this study was to develop teaching materials based on Contextual Teaching and Learning (CTL) for fourth-grade elementary school students. The methodology used in this development is the Design and Development (D&D) model with the ADDIE approach, which includes: (1) Analyze, analyzing students' needs, learning outcomes, financial literacy indicators, materials, and the CTL approach; (2) Design, designing the initial teaching materials and creating a validation questionnaire; (3) Development, developing the design into a complete teaching material, conducting validation, and revising the teaching material; (4) Implementation, testing the teaching material on students; and (5) Evaluation, reflecting on the success of the teaching material. Data collection techniques in this study used questionnaires and tests. The data analysis techniques used were qualitative and quantitative. The teaching materials were organised into two parts: needs and desires (KEKIN), and understanding the value of currency and its functions (UANG PINTAR). The research results indicate that the instructional materials received a validation rating in the "Highly Suitable" category. Students' financial literacy improved significantly based on post-test results. This study concludes that the "KEUKEU" instructional materials are highly suitable for fourth-grade elementary school students and can enhance their financial literacy.

Keywords: Contextual Teaching and Learning, Financial Literacy

INTRODUCTION

Financial literacy is a skill that every individual needs to master in the 21st century. Financial literacy is the knowledge and understanding of financial concepts and risks, as well as the skills, motivation, and confidence to apply that knowledge and experience to make effective decisions in various financial contexts, to improve individual and societal financial well-being, and to enable participation in economic life (OECD, 2020, p. 43). This is supported by the OECD PISA study in 2005, which stated that the need for financial literacy can begin as early as elementary school. This is the stage where spending and saving patterns start to form, which can have a significant impact on their future lives. Financial literacy education is necessary for elementary school-aged children because most daily activities involve economic aspects (Riza et al., 2022). Financial literacy skills from elementary school age can impact how children understand the value of money, make wiser financial decisions, and grow into more financially

independent individuals when they become adults. Some benefits for students after acquiring financial literacy include the ability to control spending impulses and the development of a savings mindset from an early age (NN Pratama et al., 2024).

The reality is that many students do not yet understand the basics of money management, such as the concepts of savings, spending, and budgeting, which can hinder their ability to make wise financial decisions in the future (Khoiriah et al., 2024). Financial literacy should be conveyed through more meaningful learning experiences because it relates to everyday life. Based on observations at one school in West Bandung Regency, many students today still do not fully understand financial literacy. They only know how to use their pocket money to buy desired items without understanding important concepts such as saving, creating a simple budget, or distinguishing between needs and wants. One educational approach to develop financial literacy is the Contextual Teaching and Learning (CTL) approach. CTL is an educational method that actively involves students, connects lesson materials to real-life situations, and helps students explore their own understanding, establish connections between the knowledge they possess and its application in daily life (Hasibuan, 2014).

In addition to the right approach, the use of teaching materials will also influence students' understanding of financial literacy. This is because the delivery of material on finance is relatively rare, and teachers often use lecture methods that result in students having a poor understanding of financial literacy. However, the use of CTL-based teaching materials can foster active student engagement in the learning process. The core concept of CTL is to conduct the learning process by linking instructional materials to students' direct experiences (Nababan et al., 2023). Based on the problems outlined above, there is a need for teaching materials to make learning more interesting. Teaching materials are all materials needed by educators in planning and evaluating learning activities (Wahyudi, 2022, pp. 51-52). With the right teaching materials, whether in the form of books, modules, videos, or other teaching aids, learning becomes more structured and easier to understand. Therefore, the researcher aims to develop teaching materials using the CTL approach to improve financial literacy in the IPS subject at the B phase of elementary school. In addition to using the appropriate approach, teaching materials play a crucial role in the learning process regarding financial literacy. Currently, CTL-based teaching materials are rarely found, and teachers often use the lecture method to deliver material on financial literacy.

METODOLOGY

The type of research used is Design and Development (DnD). Richey & Klein (in Paramecwari et al, 2024) State that D&D research involves several processes, namely design, development, and evaluation, to create or improve models by establishing an empirical basis for the creation of products and tools in the learning environment. Richey & Klein also argue that Design and Development (D&D) research focuses on aspects of analysis, planning, production, and/or evaluation. In this study, the researcher will use the ADDIE model, which consists of five steps: 1) analysis, 2) design, 3) development, 4) implementation, and 5) evaluation, as stated by Haryati (In Mufliva, 2022, p. 212). The ADDIE model research procedure can be seen visually in Figure 1.



Figure 1. Model ADDIE

(Sumber: Branch, 2009, hlm. 2)

The stages of the ADDIE model in this study are as follows: 1) Analysis (Analyze) carried out at this stage includes analyzing student needs, analyzing learning outcomes, analyzing financial literacy indicators, analyzing existing materials in phase B learning outcomes, and analyzing the CTL approach; 2) Design: This stage involves creating a design for instructional materials consisting of the necessary components, developing evaluation questionnaires for subject matter experts, design experts, and learning experts; 3) Development: At this stage, the following activities are carried out: realizing the design into reality in the form of teaching materials, improving the validated product according to the validation results; 4) Implementation: At this stage, the following activities are carried out: conducting a trial of the developed product with students, conducting pre-tests and post-tests related to the material to assess students' understanding of financial literacy; 5) Evaluation: At this stage, the researcher evaluates the developed product based on suggestions and input from experts and student responses provided during the learning process.

The data collection technique used in this development study was a questionnaire. This questionnaire included instruments to assess the opinions of experts or validators on the suitability of the developed “KEUKEU” teaching materials. The instruments used in this development research are (1) the expert material assessment validation instrument sheet, (2) the

expert design assessment validation instrument sheet, and (3) the learning practitioner validation instrument sheet. This data analysis measures the feasibility of the “KEUKEU” teaching materials to determine the value of each aspect.

The criteria for assessing the feasibility of the developed teaching materials, using a Likert scale as described by Arikunto (in Oktaviara et al., 2019), are presented in Table 1.

Table 1. Criteria for Teaching Material Suitability

No	Score in per cent (%)	Eligibility Category
1	< 21%	Very unfit
2	21-40%	Unfit
3	41-60%	Fairly fit
4	61-80%	Fit
5	81-100%	Very fit

RESULT AND DISCUSSION

RESULTS

This development research used the ADDIE (Analyse, Design, Development, Implementation, Evaluation) model to produce (1) Contextual Teaching and Learning-based teaching materials named “KEUKEU,” a product designed by researchers with a focus on improving financial literacy; (2) assessments of the developed product by subject matter experts, designers, and learning practitioners. In accordance with the stages of the ADDIE model, before designing the teaching materials, the researcher conducted the following stages: 1) analysis: analysis obtained after conducting observations revealed several findings, namely that financial literacy learning was not yet optimal, and teachers delivered lessons using lecture methods without relating them to real-life situations. Teachers had also never created teaching materials on financial literacy, focusing only on using government textbooks. The researcher then analysed learning outcomes, learning objectives, and learning objective indicators based on the Decision of the Head of the Agency for Education Standards, Curriculum, and Assessment, Ministry of Education, Culture, Research, and Technology, number 032/H/KR/2024. Focusing on IPAS phase B learning is presented in Table 2:

Table 2. Analysis of Cp, Tp, ITP

Learning Outcomes	Learning Objectives	Learning Objective Indicators
Students can distinguish between needs and wants, currency values, and their functions.	Students can identify needs	1. Students can define needs 2. Students can give examples of needs 3. Students can explain needs based on their level (primary, secondary, tertiary). 4. Students can give examples of needs based on their level (primary, secondary, tertiary). 5. Students can make a list of needs based on their level (primary, secondary, tertiary).
	Students can identify desires	6. Students can define desires 7. Students can give examples of desires
	Students can distinguish between needs and wants	10. Students can distinguish between needs and wants 11. Students can define a scale of priorities 12. Students can create a scale of priorities
	Students can explain the value of currency.	13. Students can define money 14. Students can name the types of money 15. Students can obtain money
	Students can mention the functions of currency	16. Students can explain how to use money wisely in everyday life. 17. Students can demonstrate wise attitudes in using money. 18. Students can mention the functions of money. 19. Students can explain the importance of saving money. 20. Students can make a savings plan.

2) *design*: In designing the “KEUKEU” teaching materials, the researchers designed the structure of the material and learning activities to be carried out by the students. At this stage, the researcher also created a prototype of the teaching materials based on the principles of contextual teaching and learning, character selection, and designing savings activities after learning about financial literacy; 3) *development*: in the process of creating the “KEUKEU” teaching materials, the researcher used software, namely the Canva application. Before designing the teaching materials, the researcher created a blueprint for the “KEUKEU” teaching materials based on contextual teaching and learning to facilitate content compilation. Based on the blueprint that had been designed, the researcher then created the design of the “KEUKEU” teaching material based on contextual teaching and learning; 4) *implementation*: a trial was conducted on 21 fourth-grade students at an elementary school in West Bandung Regency; 5)

evaluation: the results of the evaluation in this development concluded that the product developed was suitable for use.

The “KEUKEU” teaching materials are divided into two discussion sections. The following is the subchapter layout of the teaching materials:



Figure 2. Sub-topic: Needs & Desires



Figure 3. Sub-topic: Currency Value & Its Functions

The scope of Figure 2 covers students' understanding of the material on needs and wants. In this subchapter, students will be encouraged to learn more about needs and wants in everyday life, distinguish between them, and create their own priority scale. This subchapter also includes practice questions for students to complete. Next, Figure 3 explains what money is. In this sub-section, children will be guided to learn more about what money is, the different types of money, how to earn money, and how to create a savings jar to fill with their pocket money. The “KEUKEU” teaching material also incorporates the seven principles of CTL, which are constructivism, inquiry, questioning, learning community, modelling, reflection, and authentic assessment.

In the constructivist stage, students are asked to observe a short story. This activity is about constructing knowledge, not receiving knowledge. Therefore, students can correctly explain and restate the definitions of needs and wants, as well as the definitions of currency values and their functions, using their own words. The following is part of the teaching material on the principle of Constructivism:



Figure 4. Constructivism Section

Furthermore, the inquiry principle involves observing previous material to gain knowledge. The following are parts of the teaching materials on the inquiry principle:

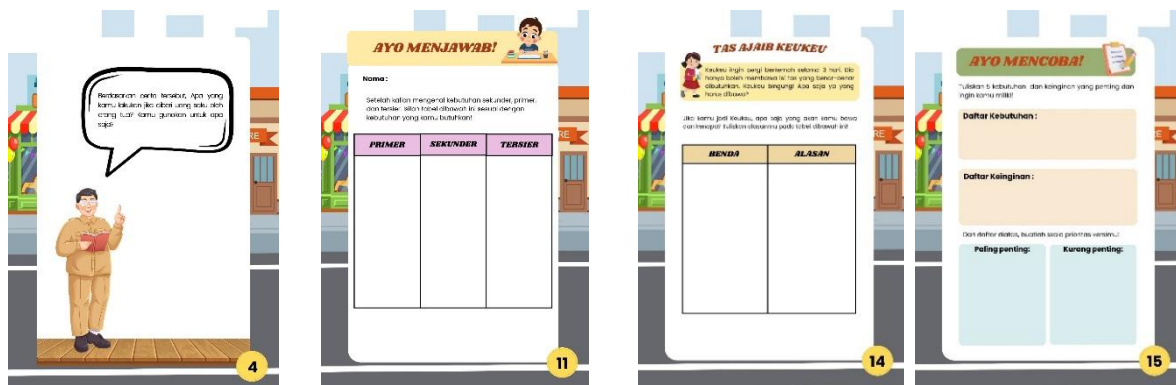


Figure 5. Inquiry

Questioning is defined as fostering students' curiosity through interactive question-and-answer dialogues that involve all members of the learning community. In this CTL-based “KEUKEU” teaching material, there are questions for students to explore their knowledge of the learning topic and to develop their curiosity. The following is an excerpt from the teaching material on the principle of questioning.

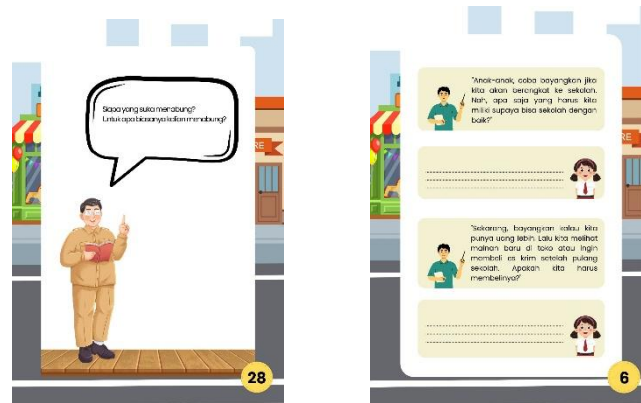


Figure 6. Questioning

A learning community can be defined as the learning outcomes obtained from collaboration with others. Students are encouraged to form groups to facilitate the learning community process, enabling them to work together on assignments. The following are components of teaching materials based on the principle of learning communities.



Figure 7. Learning Community

Next is the principle of modelling. In learning specific skills or knowledge, there needs to be a model that students can imitate. In this teaching material, students are asked to observe pictures of examples of activities being carried out. These activities involve a process of observation, followed by imitating the model.



Figure 8. Modelling

Reflection can be defined as an effort to observe, organise, analyse, clarify, and evaluate learned concepts. In the CTL-based teaching material “KEUKEU,” this is evident on pages 30 and 31, where reflection activities consist of several questions about what has been learned, what has been gained, and the impressions and messages that can be taken away from the learning process. The following is a section of the teaching material on the principle of reflecting.

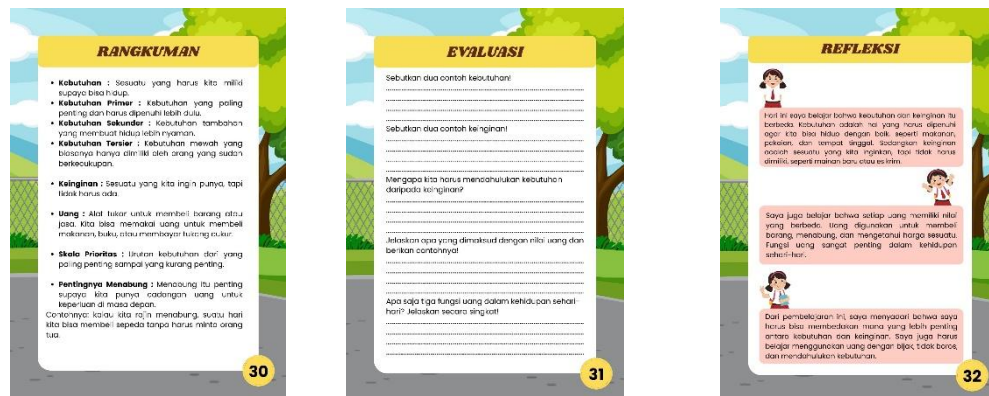


Figure 9. Reflecting

Authentic Assessment is a process of collecting various data to provide an overview of student learning progress. In the CTL-based “KEUKEU” teaching materials, as seen on pages 21 and 26, students are asked to complete test questions to assess their learning outcomes.

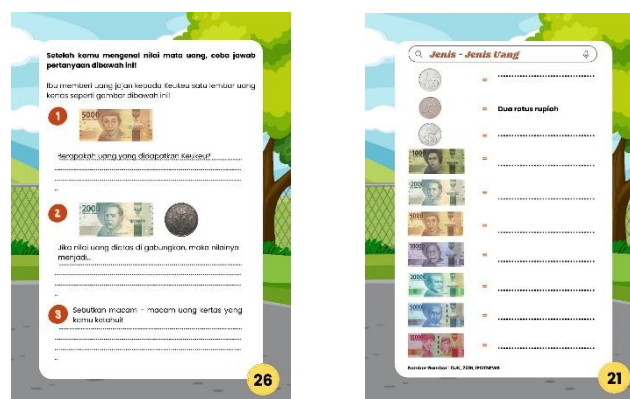


Figure 10. Authentic Assessment

The developed teaching materials were then validated to obtain assessments from subject matter experts, design experts, and learning practitioners. The validation results can be seen in Table 2 below.

Table 2. Expert Validation Results

Validation Results	Percentage	Criteria
Subject Matter Expert	100%	Very Appropriate
Instructional Design Expert	92,50	Very Appropriate
Learning Practitioner	97,50	Very Appropriate
Average	96,66%	Very Appropriate

Based on Table 2, the “KEUKEU” teaching material product received a 100% rating from subject matter experts for its feasibility. Furthermore, the assessment results from design experts showed that this teaching material achieved a score of 92.50% under the criteria of very feasible. Meanwhile, learning practitioners reported a 97.50% success rate with the criteria of very feasible.

The average of the overall expert validation results indicates “highly suitable” with a 96.66% accuracy rate.

The aspects evaluated in detail by subject matter experts are shown in Table 3.

Table 3. Aspects of Subject Matter Experts

Aspect	Percentage	Criteria
Content Feasibility Aspects	100%	Highly Recommended
<i>Contextual Teaching and Learning</i>	100%	Highly Recommended
Presentation Feasibility Aspects	100%	Highly Recommended
Language Suitability Aspects	100%	Highly Recommended
Average	100%	Highly Recommended

In Table 3, subject matter experts assess teaching materials based on four aspects: content suitability, contextual teaching and learning, presentation suitability, and language suitability. The assessment results show that the content suitability aspect received a score of 100%, indicating that the “KEUKEU” teaching materials are relevant and accurate in accordance with student needs. The contextual teaching and learning aspect received a score of 100%, indicating that the teaching materials developed are in line with CTL principles. The presentation aspect received a score of 100%, indicating that the materials are well-structured and engaging, thereby enhancing student involvement. Furthermore, the language suitability aspect received a score of 100%, indicating the use of clear and easily understandable language for students. Overall, the developed teaching materials received a 100% rating from subject matter experts, categorised as highly suitable.

Next, the validation results from teaching material design experts are presented in Table

4.

Table 4. Design Validation Results

Aspect	Percentage	Criteria
Teaching Material Cover Design	93,75%	Highly Recommended
Teaching Material Content Design	91,66%	Highly Recommended
Average	92,5%	Highly Recommended

In Table 4, instructional material designers assessed the instructional materials based on two aspects, namely cover design and content. For the cover design aspect, the instructional materials received a score of 93.75% as very feasible, meeting the criteria for illustrations, font type, colour, and proportions on the cover very well. The content design aspect of the instructional materials received a score of 91.66%, rated as acceptable. It meets the criteria for size, font variation, illustrations, writing, and attractiveness, all of which fall into the very acceptable category for fourth-grade elementary school students.

Next, the results of the learning practitioner validation are presented in Table 5.

Table 5. Learning Practitioner Validation Results

Aspects	Percentage	Criteria
Media Aspects	100%	Very Appropriate
Material Aspects	100%	Very Appropriate
Language Aspects	87,5%	Very Appropriate
Supporting Aspects	100%	Very Appropriate
Average	97,5%	Very Appropriate

Table 5 shows the validation results from learning practitioners, which consist of four aspects: media, material, language, and support. In terms of media, the percentage reached 100%, indicating that this teaching material is very suitable due to its appearance, instructions, and easy-to-understand illustrations. The content aspect also achieved a 100% percentage, meaning the material presented is highly aligned with learning outcomes and presented engagingly. For the language aspect, the percentage is 87.5%, indicating that the language used is appropriate and interactive for students. Furthermore, regarding the supporting aspect, the percentage is 97.5%, which is a very suitable category. This indicates that the teaching material is equipped with exercises and learning approaches that can help develop students' understanding of financial literacy.

Furthermore, to assess the quality of financial literacy improvement after implementing the “KEUKEU” teaching materials, an increase in students' financial literacy comprehension skills was observed, as calculated using the N-Gain test, as shown in Table 6.

Table 6. N-Gain Results

No	Data Analysis Techniques	Average	Category
1	<i>Pre-test</i>	50,00	Sufficient
2	<i>Post-test</i>	100,00	Very Good
3	<i>N-Gain</i>	0,73	High

Based on the table above, it is evident that there has been a significant increase in average scores. The average pre-test score of the students was 50.00, which is categorised as satisfactory. After implementing the “KEUKEU” teaching material based on Contextual Teaching and Learning (CTL), a post-test was conducted on the students, resulting in an average post-test score of 100.00, which is categorised as excellent. To assess the improvement in financial literacy comprehension skills, the researcher analysed the average N-Gain results. The average N-Gain obtained was 0.73, which falls into the “high” category according to N-Gain criteria.

Therefore, it can be concluded that the “KEUKEU” teaching material based on Contextual Teaching and Learning (CTL) developed by the researcher can improve financial literacy comprehension skills in phase B elementary school students through pre-tests and post-tests, as shown by the N-Gain results obtained, which were 0.73 and fell into the high category.

DISCUSSION

Teaching materials are an important tool in the learning process, according to Panen's opinion (in Nuryasana, 2020), which states that they are systematically arranged and used by teachers. The researcher conducted a needs analysis of the students by observing the learning process and found that the financial literacy material was still not optimal because it focused solely on explanations without relating to real-life situations. Teachers delivered the material solely through lectures and used only the books provided by the government, resulting in a lack of learning resources specifically designed for financial literacy. The use of teaching materials is in line with Prastowo's (in Hariyati, 2022) statement that the purposes of using teaching materials include the following: 1) to make it easier for students to understand the material, 2) to provide innovation in learning activities, 3) to make the learning process easier, and 4) to make learning activities more innovative and engaging.

In this study, teaching materials were developed using the Contextual Teaching and Learning (CTL) approach. The Contextual Teaching and Learning (CTL) approach connects material with real-world situations. The CTL learning approach is a learning concept that helps teachers connect learning material with real-world situations and encourages students to make connections between their knowledge and its application in everyday life (Abidin et al., 2022).

Researchers analysed the independent curriculum that will be used. Based on the results of the researchers' analysis, the learning outcomes of IPAS phase B were developed into five general learning objectives. These general learning objectives were further expanded and elaborated into 18 specific learning objectives that must be achieved. The next stage is design, where the researchers create a structure that includes learning materials, activities, and prototypes of teaching materials. This study uses the Contextual Teaching and Learning (CTL) approach, which has seven learning principles, namely a) Constructivism; b) Inquiry; c) Questioning; d) Learning Community; e) Modelling; f) Reflecting; g) Authentic Assessment. Next, the researcher conducts the development stage. At this stage, the researcher realises the teaching materials align with the existing design.

However, teaching materials must undergo a validation process by experts, namely subject matter experts and teaching material design experts. This is done to ensure that the content of the teaching materials is suitable for distribution to teachers and students who need it. Based on the results of the data analysis conducted through a questionnaire, the Contextual Teaching and Learning-based instructional material named "KEUKEU" has been validated as highly suitable. Therefore, the Contextual Teaching and Learning-based instructional material is now permitted to be introduced to students.

CONCLUSION

Based on the above explanation, it can be concluded that: 1) the "KEUKEU" teaching material on needs and wants, currency value and its functions was developed continuously based on the results of expert validation of 100% with very feasible criteria; 2) the "KEUKEU" teaching material on needs and wants, currency value, and its functions was developed continuously based on expert design validation results of 92.50% with the criteria of highly suitable; 3) the "KEUKEU" teaching material on needs and desires, currency value, and its functions was developed continuously based on practitioner learning results of 97.50% with the criteria of highly suitable. Then, an N-Gain test was conducted, yielding a result of 0.73, which

can be categorised as high. Thus, the “KEUKEU” teaching materials based on Contextual Teaching and Learning on the subject of needs and wants, currency values, and their functions for fourth-grade elementary school students are indeed very feasible to be developed because, in addition to helping teachers in facilitating the delivery of learning materials, they will also help students in understanding financial literacy.

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