CONTEXTUAL TEACHING MATERIAL DEVELOPMENT MODEL

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Learning accounting so far only uses student activity sheets or books or handouts. This obviously can cause students to be vulnerable to disinterest, difficulty in learning accounting, less motivated and abstract lessons. This study aims to determine the extent, to which the process of making printed teaching materials model products is in the form of real document transactions that contextually integrate student worksheets in accounting. By designing learning experiences that are close to real-world conditions, so that they can grow knowledge and skills in the field of accounting, through innovation in creating product models of printed teaching materials that are contextually integrated with working papers in the accounting field. The method, designed in this research, is the Thiagarajan (4D) development model, which consists of the Define stage, Design stage, Develop stage, and Dissemination stage. The results showed that the product in this development research was in the form of appropriate teaching materials to support the application of the scientific approach in implementing the curriculum. Overall, the teaching materials made are real and contextual, students are motivated to learn well by using Real document transaction products because learning is like using transaction proof documents in the real industrial world.

Keyword: Real Document Transaction, worksheet, cooperative learning, accounting, teaching materials, contextual

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1. Introduction

The learning process is a series of activities, carried out by students and educators on a reciprocal or interactive basis that takes place in an educational atmosphere to achieve certain learning goals. In the learning process, educators are required to have various abilities in managing the lesson process. Learning is a lesson activities, designed by teachers to develop insight and creative thinking that can foster students' thinking skills, and can improve reasoning abilities in constructing new knowledge as an effort to improve mastery of learning materials well. Learning is directed at building thinking skills and the ability to master the subject matter, where knowledge comes from outside, but is constructed within individual students.

The results of research from [1] on senior high school students in Australia stated that in accounting learning, teaching style (teaching style of the teacher) affects the student learning process, the results also show that the stimulation of interest (interesting stimulus) includes: easy to understand, empathy with students' needs, clear goals, and appropriate feedback, showing a significant positive relationship between the teacher's teaching style and good teaching values. According to [2] students are disinterested in accounting because the subject matter of accounting is irrelevant/contextual with real life. Meanwhile, according to the results of research [3] on students, it shows that there are still many children who still have difficulty in accounting subjects. This can be seen from the results of the mid-semester exam with an average score that is still low, even though the standard of learning completeness is expected. These results indicate that the achievements made are still far below the expected value. Internal factors, which include health conditions, interest in lessons, learning motivation and study habits have a negative effect on students' learning difficulties in accounting. The higher quality of internal factors will be followed by a decrease in student learning difficulties, on the contrary, the lower quality of internal factors will be followed by an increase in student learning difficulties. Thus, the main and fundamental problem that must be solved is the need for efforts to develop a lesson model and teaching materials that are able to foster stimulation of interest, are contextual or based on actual life realities, are able to increase motivation and study habits and are able to overcome difficulties in learning accounting. Based on these main problems, the specific objective to be achieved is to develop a learning model that is able to foster stimulation of interest, is contextual in nature, is able to increase motivation and study habits and is able to overcome difficulties in lesson accounting subjects.

Thus, this research development model is very important in order to create a learning experience for students, so that it is able to foster stimulation of interest, is contextual or based on actual life realities, is able to increase motivation and study habits and is able to overcome difficulties in lesson accounting. By creating learn-
ing experiences in accordance with real world conditions, it is not only able to grow knowledge but also skills in accounting. So that the targeted lesson experience is that students not only understand accounting theory, but students can also practice accounting transactions as in the real business world.

2. Literature Review

The innovations, carried out in the context of developing learning models, are by creating real document transactions that are contextual/relevant to real life and integrated with worksheets in accounting subjects. Real document transactions that are contextually integrated into worksheets are creating index transaction documents that use examples of proof of transactions, commonly used in real financial transactions in the business world, such as credit/debit notes, invoices, receipts, checks and others, associated with the worksheet in accounting. So that with this innovation, students get a lesson experience, such as facing and carrying out financial transactions for themselves as in the real world (Fig. 1).

With the real document transaction that is contextually integrated with the worksheet, then the accounting lesson is implemented. Thus, the target of this innovation is the existence of contextual real document transactions that are integrated with worksheets in accounting. With the production of contextual real document transactions and integrated worksheets in accounting, it can contribute to the development of Indonesian Human Resources through improving the quality of learning, namely in lesson accounting, not only understanding theory but also being able to practice it. Thus not only building aspects of knowledge but also skills related to real life. So that the more spread and use of contextual and integrated real document transaction models, the more human resources will be able to manage finances properly in this country.

Active learning is a lesson model that involves more students in accessing various information and knowledge to be discussed and studied in the classroom lesson process, so that they get various experiences that can improve their competence [4]. In addition, active learning also allows students to develop analytical and synthesis skills and be able to formulate new values, taken from the results of their own analysis. Literally active learning means active lesson. Most practitioners and observers call it a learning-by-doing model. His approach views lesson as a process of building understanding through experience and information [5]. With this approach, the students' unique perceptions of knowledge and feelings influence the lesson process.

Fig. 1. Contextual teaching materials in the form of real document transaction invoices

The active lesson model is one of the models in teaching and lesson that aims to improve the quality or level of education by empowering students actively in the learning process. Active learning (active lesson) is a learning process with a view to empowering students to learn by using various methods or strategies actively [6]. Studies have shown that active lesson is an effective approach. The study of [7] has also shown that passive and active learning generally leads to knowledge retention (Fig. 2).

In this case, the process of active learning activities is dominated by students by using their brains to find concepts and solve problems being studied, as well as to prepare mentally and train their physical skills. The same thing was also expressed by to him that in order to learn to be active, students must use their brains by examining an idea, solving problems and applying what they learn apart from that active lesson, they must be enthusiastic, move freely and think hard. Moving about and thinking aloud.

The way to empower students is not only by using the lecture method, as has been used by educators in teaching and lesson activities. Educating with lectures in addition to causing boredom, students will find it difficult to concentrate longer, this is based on the results of a study, which showed that with the lecture method students paid less attention for 40% of the entire lesson time. Students can remember as much as 70% in the first ten minutes, while in the last ten minutes they can only remember 20% of the subject matter. This fact is in accordance with the aphorisms, given by a philosopher
from China, Confucius. I forget, what I see I remember, what I understand.”

In order for the active learning process to run well, an educator is required to use and master active learning strategies. Active learning strategies are very necessary because each student has a different way of lesson besides the use of active lesson strategies for educators will be very helpful or facilitate in teaching.

Fig. 2. Pyramid of Dale

According to [8] the lesson model is a guide in the form of a program or instructional strategy instruction, designed to achieve a lesson goal. The guide contains the teacher’s responsibilities in planning, implementing, and evaluating lesson activities for students during study. With the selection of methods, strategies, approaches, and learning techniques, it is hoped that there will be a change from remembering (memorizing) or retaining (rote learning) to thinking (imaging) and understanding (comprehending), from a lecture model to a discovery lesson or inquiry learning approach, from individual to cooperative lesson, as well as from subject centered to learner centered or the construction of student knowledge. The cooperative learning model is not something new at all for teachers. What is the cooperative learning model? Cooperative lesson model is a lesson model that emphasizes group learning activities. Students in each group are diverse and have different levels of ability (high, medium, low) [9]. The cooperative learning model emphasizes cooperation in the ability to solve problems in order to apply skills and knowledge to achieve learning objectives.

Cooperative learning is a lesson approach through small groups of students to work together in maximizing lesson conditions in achieving learning goals. Cooperative learning is learning that consciously and systematically develops interactions that are mutually honoring, loving, and caring for each other. Meanwhile, Bruner in his study explains that learning together is a basic human need to respond to other humans in achieving a goal.

According to [10], all learning models can be identified through the goal structure, reward structure and task structure. The goal structure, reward structure and task structure in the cooperative learning model are different from the goal structure, reward structure and task structure in other learning models. In the learning process activities with the cooperative learning model, students are encouraged to interact and work together on a common task and they must coordinate in their efforts to complete the tasks, given by the educator. The purpose of the cooperative lesson model is to increase students’ academic lesson outcomes, and students can accept diversity from their friends, as well as the development of social skills.

Real Document Transaction is a quite fun strategy that is used to repeat the material that has been taught previously. However, even new material can still be taught using this lesson strategy with notes, students are given the task of studying the topics to be taught first so that when they enter class they already have a stock of knowledge [11].

One of the abilities that must be possessed by educators is the ability to apply various learning models according to the subject matter, so that the lesson process can be interesting, fun, and can motivate students to participate in teaching and lesson activities in the classroom. Learning is one of the necessities of human life in an effort to maintain life and develop oneself in the life of society and the state. Learning is an important need, because along with the rapid progress of science and technology that causes various changes that hit all aspects of life, humans are required to know and be able to follow these changes.

Real Document Transaction is a fun lesson that is used to repeat the material that has been given previously, this lesson divides the class into two large groups where one group will be given a paper, containing questions, while the other group will be given a paper, con-
taining the answers to the questions, given to the group one, then each student will look for a pair of questions and answers. Then the student who finds a partner will sit close together and then ask each pair in turn to read the questions, obtained on paper to other friends. Furthermore, the question is answered by their partner.

To improve student development in all aspects, namely cognitive, affective, and psychomotor aspects, active lesson models can be applied using real document transactions that can increase student activity. Active lesson is one of the learning models that can be applied in teaching and lesson activities. Active lesson is learning by using real document transactions. This lesson method involves active student participation in the learning process.

The Real Document Transaction method is a lesson strategy that helps students gain knowledge, skills, and attitudes actively and makes lesson unforgettable. The Real Document Transaction lesson method can be used as an alternative method that is considered better able to understand the lesson characteristics of different students.

Active learning is expected to maximize the ability of all the potentials that students have, thus all students can achieve satisfactory learning outcomes, so that they are in accordance with students' personal characteristics. In addition, active learning is intended to be able to increase the attention of learners/students, so that they remain focused on the learning process.

In active learning, the learner has to do many tasks. They have to use their brains, solve problems, examine ideas and apply what they have learned. Active learning must be highly motivated, enthusiastic, fun and full of enthusiasm. Students even often move freely, interact and think hard. From some of these opinions, it can be concluded, that active learning is basically an effort to strengthen and reinforce the stimulus and response of students in the learning process, so that the learning process becomes fun, not so boring for students. By applying this strategy to students, it is hoped, that it will help their memory.

The active learning strategy itself is intended as an effort to optimize all the potential of students, so that students can achieve optimal learning outcomes in accordance with the characteristics of their respective personalities. This learning is basically trying to strengthen and improve the stimulus and response of students in the learning process, so that the learning process becomes fun and not boring for them. In the application of this strategy, each existing subject matter must be linked to various previous experiences and knowledge. There are several learning strategies that can be used in implementing the active learning process in schools. Suggested models of strategies can be used in the active learning process. All of these learning models can be applied in classroom learning according to the type of material and the desired goals that can be achieved by students. One form of that strategy is the Real Document Transaction Learning Strategy (matching index transaction documents).

The Real Document Transaction method is also known as "looking for a pair of transaction documents". This method has the potential to make students happy.

The game element, contained in this method, certainly makes lessons not boring. Of course an explanation of the game rules needs to be given to students, so that this method becomes more effective. This method is very appropriate for repeating the lesson material that has been given previously. Real Document Transaction is one of the instructional techniques of active lesson, which is included in various strategic reviews (repetition strategies).

This type of Real Document Transaction deals with ways to recall what they have learned and test their current knowledge and abilities by looking for pairs of transaction documents that are answers or questions while lesson about a concept or topic in a fun atmosphere. Usually teachers in teaching and lesson activities provide a many teaching materials, given to students, so that the topics or materials in the learning activity program can be completed in a timely manner, however, teachers sometimes also forget that the purpose of learning is not just material that is completed on time but also the extent, to which the material that has been delivered can be remembered by students. Therefore, in learning activities, it is necessary to conduct a review or checking to find out whether the material presented can be understood by students. This is in accordance with what was stated by a researcher: One sure way to make lesson stick in the mind is to allocate time to review what has been learned. The material that has been discussed by students tends to be five times more embedded in the mind than material that has not been discussed by students.

Also said that: Real Document Transaction lesson strategy is a strategy that is quite fun, used to repeat the material that has been given previously [12]. However, new material can still be taught with this strategy with a note, students are given the task of studying the topics to be taught first, so that when they enter class they already have a stock of knowledge. Based on the opinion above, the Real Document Transaction lesson strategy is a lesson strategy that requires students to work together and can increase students' sense of responsibility for what is learned in a fun way. Students work together and help each other to solve questions and throw questions to other pairs. This group lesson activity can help spur active lesson and the ability to teach through small group collaboration activities that allow for understanding and mastery of the material. Thus, an active lesson strategy of the real document transaction type is an active lesson method to review the subject matter by using the technique of looking for pairs of index transaction documents, which are the answers or questions while lesson about a concept or topic in a pleasant atmosphere.

Judging from student lesson activities, students who receive lessons using real document transactions will be more active and enthusiastic in lessons. The same thing happened to the indicators of the form of learning, the real document transaction in its use shows the interaction of many directions between teachers and students, students with teachers and students with students in an intensive level and a harmonious class atmosphere. [13] suggests the steps for learning with Real Document Transactions are:

1) On a separate index transaction documents, write down questions about whatever is taught in class.
This strategy is a strategy to overcome learning problems by matching index transaction documents. "Real Document Transaction is a fun and active way to review subject matter, it allows students to pair up and play quizzes with classmates". It helps students to learn actively and aims for students to have a spirit of independence in learning and foster creativity.

This type of Real Document Transaction deals with ways to recall what they have studied and test their current level of ability and knowledge by looking for pairs of transaction documents that become answers or questions while learning about a topic or concept in a fun atmosphere. Usually what is done by the teacher in the teaching and learning process is giving too much information to students in the abstract, so that the topic or material in the lesson program can be completed on time, but it is not uncommon for teachers to forget that the orientation of learning is not only the amount of material that is completed on time but also the extent, to which the material that has been taught can be absorbed and remembered by students. Therefore, in the process of learning activities, it is necessary to conduct a review; this review is carried out to find out the extent, to which the material presented can be understood by the students as a whole. This opinion is in accordance with what was stated by a researcher: "One of the most convincing efforts to make the right lesson is to include time to review what has been learnt". The subject matter that has been discussed by students tends to be more embedded in memory than the material that is not.

In general, accounting has a basic concept that becomes a reference in preparing accounting standards, aimed at accounting practices. This accounting postulate basis then emerges the basic concepts in the presentation and reporting of financial entities. The following will present some basic accounting concepts in various versions. The basic concept of accounting according to the Indonesian Institute of Accountants in the Basic Framework for Financial Presentation and Reporting paragraphs 22 and 23, states that the basic assumptions of accounting are grounded on the accrual basis and going concern. According to the International Financial Reporting Standards (IFRS) in The Conceptual Framework for Financial Reporting paragraph 4.1, the basic assumption of accounting is only going concern. Meanwhile, according to Paton and Littleton, cited by [14], the basic concepts of accounting consist of the concept of a business unit (Entity Theory), business continuity (going concern), agreed awards, costs attached, efforts and results, accomplishments, verified evidence, and assumptions.

In a more complete manner, according to Anthony, Hawkins, and Merchant as quoted by [15], the basic concepts of accounting have several points, including the concept of measurement with the unit of money, the concept of entity, the concept of going concern, the concept of cost, multiple aspects, accounting period, conservatism, realization, matching, consistency, and materiality. Therefore, for research purposes, only the basic concepts, which are postulates of accounting and relate to the basic assumption of accruals as the basis for accounting records, will be explained [16]. Namely, the entity concept, the concept of measuring money, the concept of going concern, the concept of two aspects of accounting,
the concept of cost, the concept of the accounting period, the concept of matching (transaction concept), and the concept of effort and accomplishment.

3. The aim and objectives of research

The aim of this research was to design realistic and contextual teaching materials capable of translating abstract learning. The active learning model is a concept that is difficult to define clearly, because all lesson methods contain an element of activeness from students, even though the levels of activity are different. However, all of them must be returned to an activity characteristic that reflects active lesson itself, namely intellectual, emotional involvement in the teaching and lesson activities concerned, assimilation of cognitive accommodation in the achievement of knowledge, actions and direct experience of feedback in the formation of skills and appreciation as well as internalization and values in the formation of attitudes.

To obtain the expected results, the following objectives are set:

1. Designing product teaching materials in the form of contextual Real Document Transactions that can be used in lessons.
2. Contextually pouring concepts in Real Document Transactions.

4. Research methods

The development model can be in the form of procedural models, conceptual models and theoretical models. The procedural model is a descriptive model, which outlines the steps that must be followed to produce a product. The application of this research development model is a product in the form of a contextual and integrated Reals Document Transaction.

The development model used is the development model according to Thiagarajan, namely the 4D development model (four D method) which consists of the definition stage (Define), the design stage (Design), the development stage (Develop), and the dissemination stage (Disseminate). The dissemination stage was not carried out due to the limitations of the researcher's connectivity.

5. Research results and their discussion

The presentation of the results of this research and development aims to answer the formulation of the problems, mentioned above. The data that will be presented is a series of results from the development of contextual and integrated Reals Document Transaction printed teaching materials that have been developed on the subject matter of the accounting cycle of trading companies in accounting class. This development uses a development model according to Thiagarajan, namely 4D (Four D Models), which consists of define, design, develop, and disseminate stages. However, this research was only carried out until the development stage due to the limitations of the researcher. The results of the development of contextual Reals Document Transactions and integrated worksheets that have been made on the subject matter of the accounting cycle of trading companies for accounting students are as follows: In this definition stage, the researcher determines and defines the lesson requirements. Researchers conducted a necessary needs analysis before designing Real Document Transaction-based printed teaching materials based on the Scientific Approach.

This define stage includes five main steps, namely front-end analysis, student analysis (learner analysis), task analysis, concept analysis, and formulation of lesson objectives (specifying instructional objectives). The front-end analysis is done by analyzing phenomena that occur in the field, especially in the classroom. Researchers found several phenomena that occurred, such as most students perceive and experience difficulties in the subject matter of the trading company accounting cycle. The results of the development product when compared with the original teaching material transaction example are as follows (Table 1, Fig. 3.).

<table>
<thead>
<tr>
<th>№</th>
<th>0</th>
<th>Transaction</th>
<th>Amount</th>
<th>Cash</th>
<th>Rp.1.500.000</th>
<th>Inventory</th>
<th>Rp. 100.000</th>
<th>Shop equipment</th>
<th>Rp. 400.000</th>
<th>Amount</th>
<th>Rp.2.000.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4/5</td>
<td>Mr. Marcel started his business by depositing capital in the form of, among others:</td>
<td>Cash</td>
<td>Rp.1.500.000</td>
<td></td>
<td>Inventory</td>
<td>Rp. 100.000</td>
<td>Shop equipment</td>
<td>Rp. 400.000</td>
<td>Amount</td>
<td>Rp.2.000.000</td>
</tr>
</tbody>
</table>

Students' understanding is also lacking because the available teaching materials are inadequate in the sense that the content, presented in the available teaching materials, is brief and does not support the application of a scientific approach in implementing the curriculum. Meanwhile, according to students, in understanding the subject matter of using special journals, other teaching materials are needed. However, students are also less active in finding their own references to other lesson resources, for example from the internet. The factors that occur are what hinder the implementation of the curriculum from running less than optimally. Based on the phenomena and problems that occurred, the researcher had an idea to develop real document transaction-based printed teaching materials on the Scientific Approach.
The student analysis was carried out by researchers by analyzing student characteristics, which included academic ability, age, motivation to the subject, and students’ prior knowledge. The subjects who were the target of the trial of the printed teaching materials based on the Scientific Approach were students in the accounting class. In general, accounting class students have good lesson motivation towards the material, learned in class. Cognitive abilities continue to develop during adolescence. Cognitive changes in adolescence lead to increased potential. Sometimes some cognitive abilities decline with age. Teenagers who are in the process of looking for and want to determine their identity have an attitude that is too high to judge themselves or vice versa. They do not understand properly about the social norms that apply in social life. Both can lead to social relations that are less compatible, because they are difficult to accept sexual norms with conditions in groups or society. An attitude of defiance and an awkward attitude in the association will harm both parties. Therefore, it is necessary to develop adolescent social relations, starting from the family, school and community environment.

There are changes that are universal in adolescence, namely heightened emotions whose intensity depends on the level of physical and psychological changes, changes in the body, changes in interests and roles that certain social groups expect to play, which then causes problems, changes in interests, behavior and values, they are ambiguous to change. These changes ultimately have an impact on their physical, cognitive, affective, and psychomotor development. In connection with the emotions of teenagers who tend to dream a lot and are difficult to guess, the only thing teachers can do is to treat students like adults who are full of feelings. One of the basic ways is to encourage them to compete with themselves.

It should be realized, that teenagers in their teens are in a state of confusion and difficult to predict their behavior. In many ways, he/she depends on his/her parents for his/her physical needs and feels an obligation to the care he/she provides when they are unable to care for themselves. However, he/she also wants to be free from the authority of his/her parents in order to become an independent adult. This triggers conflict with parents. When this kind of friction occurs, teenagers in their teens may feel guilty, which can further widen the gap between him/her and his/her parents. A student who feels confused about the condition may feel the need to share his/her suffering, including his/her personal secrets, with others. Therefore, a guiding teacher should appear functioning and act like a sympathetic listener.

However, a number of experts believe that the decline in cognitive skills that occurs especially in late adolescence can be improved again through a series of training. Cognitive development in the early adolescent phase, stated by that Piaget’s cognitive stages, describes increased efficiency in obtaining new information. Piaget stated that most teenagers are able to understand and examine abstract concepts within certain limits. According to Bruner, these adolescent students can use symbolic forms in sophisticated ways. Hypothetical-deductive reasoning allows adolescents at the age of teenagers to develop hypotheses and design experiments to prove them, as well as provide tools to solve problems. What makes the change from the concrete operational stage to formal operations is the combination of brain maturity and expansion of environmental opportunities. Enough to do formal reasoning.
they can only achieve it with the right stimulus. One example is through cooperative efforts.

The limitation in this study is the lack of dissemination due to limited connections between regions in Indonesia. For further research prospects, connectivity can be carried out in dissemination in Indonesia and conducting true experiments

6. Conclusions
1. The results of the study indicate that the stage of defining the available teaching materials is inadequate in supporting the application of the scientific approach in implementing the curriculum. Overall, students have good learning motivation towards the material, learned in class.
2. At the design stage, it produces a real document transaction design that is integrated with a printed and contextual worksheet.

3. Further research is needed to determine the effectiveness of real Document Transaction printed teaching materials through the review of material experts at the develop and disseminate stages to gain confidence in the effectiveness of the teaching materials. Further research is needed to determine the effectiveness of real Document Transaction printed teaching materials through class.

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References

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