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# Development of Basic Accounting and Finance Books Based on Differences Learning Style for Vocational School

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#### **Abstract**

This study aims to produce textbooks on Fundamentals of Accounting and Financial Institutions based on learning style differentiation as an alternative teaching material for teachers and student classes at State Vocational Schools in Surabaya, which consist of State Vocational School 1 Surabaya, State Vocational School 4 Surabaya, State Vocational School 6 Surabaya, and State Vocational School 10 Surabaya as well as knowing the effectiveness of using accounting textbooks based on learning style differentiation. The product produced in this study is a textbook on Fundamentals of Accounting and Finance adapted to the Merdeka Curriculum. This research is a research that uses mixed methods consisting of development research and experimental research. The development was carried out using the 4D development model from Thiagarajan which was carried out in full, namely definition, design, development and deployment. Data in this study were collected using questionnaires and tests and analyzed using descriptive analysis of proportions and t test (paired-samples t test). The results showed that overall the average proportion of eligibility for open books was very feasible. This shows that the developed textbook has valid criteria and is feasible to use. Based on the results of the t test (paired-samples t test) it is known that there are differences in motivation and student learning outcomes before and after being given treatment in the form of accounting textbooks based on learning style differentiation which indicates that textbooks have an effective effect.

#### How to Cite

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#### INTRODUCTION

The development of science and technology affects all areas of life, including in the field of education. In Indonesia, the implementation of education has been regulated by the government with a number of good regulations in the form of laws and government regulations. One of the laws that explains the pathways, levels, and types of education that apply in Indonesia is the Republic of Indonesia Law Number 20 of 2003 concerning the National Education System.

In order to achieve good quality education, there are three things that cannot be separated, namely education, curriculum, and learning. This is in accordance with the opinion put forward (Prabowo, 2019) that the curriculum has a very important position in education, because it is the curriculum that regulates and directs the goals of education. To support the implementation of education, the curriculum is designed according to the goals and needs which are then used as the basis for implementation Learning Activities. Currently, the curriculum implemented in Vocational High Schools (SMK) has been refreshed with various revisions aimed at improving the quality of education and improving the quality of learning. All components that are related indirectly also follow the changes that occur. Since the new school year 2022/2023, the education curriculum in Indonesia has changed. The change is the 2013 curriculum revision to the Free Learning Curriculum. The structure of the Merdeka SMK Curriculum has been regulated by the Minister of Education and Culture Decree No. 56 of 2022 concerning guidelines for curriculum implementation in the context of learning recovery. The Independent Curriculum is a curriculum with various intracurricular learning where the content will be more optimal so that students have enough time to explore concepts and strengthen competence. Teachers have the flexibility to choose various teaching tools so that learning can be adapted to the learning needs and interests of students.

According to Trianto (2015: 19), learning is a complex aspect of human activity, which cannot be fully explained. In other words, learning will have a more complex meaning as a conscious effort from a teacher to teach his students to achieve the goals set. Learning as a system is an organized combination that includes human elements, materials, facilities, equipment and procedures that interact to achieve a goal (Hamalik in Sanjaya, 2013). In this case, what is meant by material is everything that functions as learning material. This can be in the form of books, films, sound slides, photos, CDs, and others. The availability of these materials as teaching materials contributes to the success of students in achieving learning objectives.

In the learning process that implements the independent curriculum, there are several learning models that are suitable for application, namely problem-based learning. This is adjusted to the CP and ATP in Subjects for Phase E namely Fundamentals of Accounting and Institutions. The Problem Based Learning model is a learning model with a student learning approach to authentic problems so that students can construct their own knowledge, develop higher skills and inquiry, make students independent and increase self-confidence. In addition to the selection of learning models, an important factor that influences the success of a lesson is the availability of teaching materials. In addition, the teaching materials used must also support the learning needs of students based on differentiation.

Differentiated learning is an attempt to adjust the learning process by providing a variety of ways through differentiation of content, processes, products and the learning environment and initial assessment to meet the individual learning needs of each student. Differentiated learning needs to be applied to help every student who basically has various abilities so that they can grow as much as possible according to their abilities. Teachers will try to know the progress of each student and the development of the class as a whole as well as their students will learn to understand

their own growth, they will talk about learning goals and how to achieve them all the growth that students show no matter how small. The differentiated learning goal for each student is maximum growth from their current learning position.

As one of the supporters of success in the learning process, the preparation of textbooks needs to be designed systematically and easily understood by students. In-depth understanding will be obtained by students if what is learned can be related to cases that exist in real life. According to Ausubel's learning theory of meaningful learning, meaningful learning is a process of linking new information to relevant concepts contained in a person's cognitive structure (Dahar in Trianto, 2015: 37). This is supported by the implementation of problem-based learning which involves students presenting problems around them in order to discuss existing material.

According to Prastowo (2015), teaching materials are all materials (both information, tools, and text) that are arranged systematically and can display a full figure of competencies that will be mastered by students and used in the learning process. This teaching material has various types, both in the form of printed teaching materials and audio teaching materials. Types can be in the form of textbooks, handouts, textbooks, LKS, models or mockups, audio teaching materials, interactive teaching materials, and others. The existence of teaching materials in learning activities is expected to provide convenience for students to master a competency either through assistance or without assistance by educators.

One type of teaching material that allows students to be able to learn to understand the material comprehensively is a textbook. In Buckingham's opinion, the notion of textbooks is a learning tool that can be used in schools and universities to support a teaching program and a modern understanding that is commonly understood. Textbooks have advantages, one of which is that they can provide comprehensive knowledge to students. In addition, students can learn independently of

themselves about how far mastery of the material can be done.

Differentiated learning is learning that accommodates students' learning needs. The teacher facilitates students according to their needs, because each student has different characteristics, so they cannot be given the same treatment. In implementing differentiated learning the teacher needs to think about reasonable actions that will be taken later, because differentiated learning does not mean learning by providing different treatment or actions for each student, as well as learning that differentiates between smart and less intelligent students. The characteristics or characteristics of differentiated learning include; the learning environment invites students to learn, the curriculum has clearly defined learning objectives, there is ongoing assessment, the teacher responds to or responds to students' learning needs, and classroom management is effective.

Textbooks based on learning style differentiation are textbooks that are prepared to accommodate differences in student learning styles which include audio, visual, and kinesthetic learning styles. This means that students do not only understand the material but only inculcate the concepts and principles of the material with a combination of applying different learning styles. As is the case with the statement expressed by Walker, et al in Jaya (2019) which states that differentiation learning provides better benefits to students by placing their learning in accordance with the needs of each individual.

Current conditions show that the availability of teaching materials in schools still uses the 2013 curriculum. Meanwhile, the needs of students are teaching materials based on an independent curriculum. While in its application, learning will be maximized if the support is in accordance with current needs. Through interviews conducted with several State Vocational High School teachers in Surabaya, it was found that there were still problems related to the availability of teaching materials for the Basics of Accounting and Institutions subject.

Based on the information disclosed by the teacher at SMK Negeri 1 Surabaya, the teaching materials used in learning the Fundamentals of Accounting and Institutions are in the form of handouts prepared by the teacher along with LKPD. Some of the material is delivered using power point media to facilitate summarizing the material. The observation results show that the teaching materials already contain material, but have not been presented in full according to KI and KD in the Basics of Accounting and Institutions subject. In addition, in school learning also has not implemented differentiation-based learning.

Meanwhile, the results of interviews conducted at SMK Negeri 4 Surabaya showed that in the implementation of learning, students used teaching materials in the form of textbooks which presented material on Fundamentals of Accounting and Institutions, but this material was only briefly reviewed. While the results of interviews conducted at State Vocational School 10 Surabaya showed that the teaching materials used for learning Basics of Accounting and Institutions were to use textbooks determined by the subject teacher. The textbook already contains material on Fundamentals of Accounting and Institutions, but is still not accompanied by a complete explanation regarding the calculation steps.

Different conditions are shown from the results of interviews conducted at SMK Negeri 6 Surabaya which show that in the implementation of learning, students use teaching materials in the form of textbooks that present material on Fundamentals of Accounting and Institutions, but the material is only the textbook already contains basic material -Basic Accounting and Institutions that still use the 2013 Curriculum, so sometimes they have to adjust to the teaching modules made by the teacher. Presentation of the material is not yet systematic and not in accordance with problem-based learning and differentiation-based learning.

This is evidenced by the existence of UKK questions for the last three years which

require students to be able to calculate the size of the Fundamentals of Accounting and Institutions. As a step to overcome these problems, it is necessary to develop a textbook on Fundamentals of Accounting and Institutions on the Basics of Accounting and Institutions which provides a more detailed review both in terms of theory and regarding the calculation steps. The advantages of textbooks developed by researchers are differentiation-based learning textbooks that can bring students' thinking directions to link learning materials with real life around them and can be accessed according to learning styles. This textbook serves as a companion textbook in delivering material which presents in-depth discussion of the material accompanied by case studies.

The difference between this textbook and textbooks that are already in school is the display that is presented using simple and communicative language so that it can be easily understood by students. In presenting the material, case studies are given in real life in the environment around students at the beginning of each material. When it is related to the material on Fundamentals of Accounting and Institutions, the cases that are used as examples occur in the office environment of service companies that are around students. This is because in the presentation of the material on Fundamentals of Accounting and Institutions at the Vocational High School level, it discusses more about company financial statements, in this case manifested in the service business. This textbook is equipped with several icons including Mind Map, Accounting Window, Cornell-Note, Mini Quiz, Key Word, Get and Remember, Individual Task, Glossary, and Team Work Task. These icons are used to increase knowledge and broader insights for students regarding Fundamentals of Accounting and Institutions when studying textbooks. In addition to material, this textbook is equipped with HOTS-based practice questions and adapted to differences/differentiations in learning styles. In addition, this book contains remedial programs and enrichment programs,

as well as practice questions presented according to the Minimum Competency Assessment (AKM) question model.

To overcome this problem, it is necessary to develop teaching materials that do not only put the material in the form of writing textbooks and worksheets. These teaching materials should be able to build their knowledge and interest in learning in all conditions and can hone students' thinking skills, so that students can learn effectively, both with the help of the teacher and without. The teaching material developed is a lesson package for Fundamentals of Accounting and Institutional Finance which contains accounting materials for class X of SMK Accounting, so that it is expected to be an alternative teaching material solution for students in the learning process. Based on the description that has been described and considering the urgency and usefulness, the researcher intends to conduct development research with the title Development Of Basic Accounting And Finance Books Based On Differences Learning Style For Vocational School.

Based on the limitations of the problems that have been stated, the formulation of the problem in this study is 1. What is the Process of Developing a Textbook of Fundamentals of Accounting and Finance for Institutions Based on Differentiation of Learning Styles in the Independent Curriculum for State Vocational Schools in Surabaya?; 2. What is the feasibility according to the Development of Textbook Fundamentals of Accounting and Finance for Institutions Based on Learning Style Differentiation in the Independent Curriculum for State Vocational Schools in Surabaya?; 3. What is the response of students to the Development of a Textbook of Fundamentals of Accounting and Finance for Institutions Based on Learning Style Differentiation in the Independent Curriculum for State Vocational Schools in Surabaya?

According to the Ministry of Education and Culture and Research and Technology, the Independent Curriculum or often referred to as the Independent Learning Curriculum

is a curriculum with various intra-curricular learning, where the content presented to students will be more optimal with the aim that students can have enough time to deepen concepts and strengthen competence. In the Independent Curriculum, teachers have the flexibility to choose various teaching tools, so that learning can be adapted to the learning needs and interests of students. The Merdeka Curriculum uses a project basis to strengthen the achievement of the Pancasila student profile. This project was developed based on a certain theme set by the government.

According to Hamalik (2015), learning is a process of changing individual behavior due to interactions with the environment so that it can strengthen behavior through experience. According to Sadiman (2010), learning is a complex process that occurs in everyone and lasts a lifetime marked by a change in behavior within him. According to Whiterington in Hanafiah and Suhana (2010: 7), "learning is a change in personality and manifested as new response patterns in the form of skills, attitudes, habits, knowledge, and skills. Based on some of these opinions, it can be concluded that the notion of learning is a process of changing behavior that occurs within a person and lasts for life as a result of interaction with the surrounding environment. The success of the process of changing one's behavior depends on each individual's learning process. This learning process requires interaction between educators and students in learning activities.

Teaching materials are one of the supporting components that have an important role in the success of the learning process. According to the National Center for Competency Based Training in Prastowo (2015: 17), "teaching materials are all forms of materials used to assist teachers or instructors in carrying out the learning process in class". According to Widodo (2008), teaching materials are defined as a device in the implementation of learning that contains learning materials, methods, limitations, and how to evaluate learning activities that are designed in an at-

tractive way according to the expected goals. According to Majid (2007), teaching materials are defined as all forms of materials, both written and unwritten, information, tools and texts used to assist teachers in carrying out learning activities. From the several opinions that have been expressed, it can be concluded that teaching materials are all materials that are arranged systematically in accordance with learning objectives, both written and unwritten, which are used to assist teachers in learning activities.

Priyanto in Prasetyo and Perwiraningtyas (2017) states that textbooks are a form of printed teaching material that can function as a source of student learning. Sjamsuddin in Komalasari (2017) textbooks are books that are the main source in the teaching and learning process and are compiled by experts in certain fields in accordance with certain fields of study. Based on the above understanding, it can be concluded that textbooks are books that contain knowledge to be used in the teaching and learning process as a source of student learning and are compiled by experts in accordance with the field of study. The functions of textbooks according to Sitepu (2012) state that the functions of textbooks include: Being a reference source for students, Being evaluation material, Helping teachers in implementing the curriculum, Helping teachers in determining teaching methods, Means for teachers to improve careers

Differentiated learning is a learning that requires the teacher to understand the needs of each student to be taught. Even though his understanding says that the teacher must meet the learning needs of each of his different students, it doesn't mean he has to teach one student with one learning method. Very often there are many teachers out there who have misunderstood or misconstrued the meaning of this differentiated learning. More than that, this learning works for teachers to meet students' learning needs in a more comprehensive way. The thing that really needs to be considered in this differentiated learning is how the teacher responds in meeting the lear-

ning needs of his students. For example, when making lesson plans, does he need to make different strategies, different sources, even to different assignments and assessments.

The Visual, Auditory, Kinesthetic (VAK) learning model is a learning model that emphasizes that learning must utilize students' senses. Learning with the Visual Auditory Kinesthetic (VAK) learning model is a learning that utilizes each individual's learning style with the aim that all student learning habits will be fulfilled. According to Deporter (2003), the VAK learning model is a learning model that makes it easy for students to understand the material taught by the teacher because it optimizes the three learning modalities. Learning with this model emphasizes direct and fun learning experiences for students. Direct learning experience by remembering (visual), learning by hearing (auditory), and learning by movement and emotion (kinesthetic).

The effectiveness in this study is related to the problem-based learning (PBL) model on conceptual understanding and critical thinking of high school students in physics subjects. The learning model is a system, which consists of various components that are interconnected with one another. (Rusman, 2010). The problem-based learning (PBL) learning model is a learning that focuses on problem solving activities. (Dasa Ismaimuza, n.d. 2010). With the intention of students actively being able to find answers to the problems given by educators. In this case, educators act more as mediators and facilitators to assist students in actively constructing knowledge. (Siregar, 2016). According to Dutch in M. taufik Amar (1994) states that PBL is an instructional method that challenges students to "learn and to learn", work together with groups to find solutions to real problems. This problem is used to relate students' curiosity and analytical skills and initiatives on learning materials.

#### **METHODS**

This research is classified as research using a mixed method consisting of research

and development and experimental research. Research and development is used to answer problem formulations one to three which aim to produce a particular product. In this research, the researcher developed a Textbook for Basic Accounting and Financial Institutions Based on Differentiated Learning Styles for Class X Vocational Schools as support Implementation of the Independent Curriculum. Meanwhile, to answer the fourth problem formulation, researchers used experimental research. The aim is to assess the effectiveness of using teaching materials on Basics of Accounting and Financial Institutions for class X Elements of Business Processes in the Field of Accounting. The development model suggested by Thiagarajan and Sammel in (Trianto; 2019: 189) is 4D which consists of 4 development stages, namely, Define, Design (planning), Development (development) and Disseminate (dissemination). All stages in the research will be carried out. This development model is used as the basis for the process of developing a Textbook for the Basics of Accounting and Finance for Institutions Based on Differentiated Learning Styles for Class X Vocational Schools to support implementation on Independent Curriculum. Experimental research is a quantitative research method used to determine the effect of independent variables (treatment) on dependent variables (outcomes) under controlled conditions (García-Cáceres et al., 2022).

The test subjects in this research were 20 students from SMK Negeri 1 Surabaya, SMK Negeri 4 Surabaya, SMK Negeri 6 Surabaya, and SMK Negeri 10 Surabaya, experts consisting of material experts, language experts, and media experts, as well as control class and experimental class students. The sampling technique for this trial uses a purposive sampling technique, namely students are selected using low, medium and high competency criteria according to data from subject teachers. After the development process has been carried out, the next stage is to test the effectiveness of the Basics of Accounting and Institutional Finance textbook product being developed. This

stage was carried out with the aim of analyzing the effectiveness and practicality through students' responses to the development of the learning media being developed. Here the researcher used a Pre-Experimental design trial design with a One Group Pretest-Posttest design model to facilitate this research.

The population taken in this research were students in class The schools used as population are students of SMKN 1 Surabaya, students of SMKN 4 Surabaya, students of SMKN 6 Surabaya and students of SMKN 10 Surabaya. As subjects for carrying out experimental activities, the samples used in the experimental stage in this research were students of class quantitative, where qualitative data is obtained from a questionnaire distributed to the validator team consisting of material expert validators, language expert validators and media expert validators. Meanwhile, quantitative data was obtained from the questionnaire scoring results which were averaged to obtain the ideal score percentage to determine the suitability of textbooks in accounting subjects. The instruments used in this research were questionnaires and study sheets. Questionnaires are used to determine the effectiveness of learning while review sheets are used to assess the textbooks being developed. Data originating from expert assessments will be processed using presentation techniques, while experimental data will be processed using statistics.

#### **RESULTS AND DISCUSSION**

This research uses the development of the Thiagarajan 4D model where there are at least four stages that the researcher goes through, namely define, design, develop, and disseminate. Several stages in the development process were passed in order to obtain eligibility from material, graphic, and language experts regarding the improvement and refinement of teaching materials. Contextual teaching materials are made based on the 2013 curriculum unit as an effort to take advantage of scientific developments and technological growth in the current era. The design of te-

aching materials is sought to be designed in an attractive manner with the aim of supporting students in understanding the material so that they can think actively and critically through several case studies of real events in their surroundings.

The initial stage of the researcher is define, this stage requires a lot of information such as information on modeling the teaching materials used, then determining what the students need. At least in the initial analysis the researcher digs up information related to student analysis, the second is objective analysis, the third part is concept analysis, and task analysis. As the first step in this stage is to find out information related to the problems being faced by State Vocational Schools in Surabaya and then from there researchers try to find solutions to solve these problems. From the results of the facts and solutions obtained, the researchers made teaching materials according to the needs of the students there. Several facts were obtained by researchers to facilitate the process of preparing teaching materials such as the character, habits, and features of class X accounting students. KD intended as the main content of teaching materials is KD 3.16 & 3.17.

The second stage is design, the stage where a researcher is still planning to design contextual teaching materials. Teaching materials are made according to the book format issued by (BNSP, 2014). Through the interesting features in it, it is hoped that it will become an attraction for the learning enthusiasm of AKL 1, 2, & 3 students to understand fiscal reconciliation material. Researchers took advantage of the help of an application software called Adobe Flash contextually based on Android, where this software is easily installed by simply providing a capacity of 42.8 MB so that teaching materials can be installed on each Android. The design of the teaching material itself is divided into the initial design, content and closing of the teaching material. The initial design shows the front cover display as well as instructions for use. The following shows the cover display of contextually assisted teaching materials.

The content section consists of competencies, concept maps, materials, and videos. Competence of KD 3.16 & 3.17 on fiscal reconciliation material is described in seven indicators consisting of definitions, types, causes of occurrence, calculation procedures, to presentation of fiscal correction reports. The material section contains material with a contextual approach which uses a scientific approach which has five stages, namely observing, asking, gathering information, reasoning, and communicating. The following is a picture of the contents of the teaching materials.

The closing part of the teaching material consists of a skills menu, bibliography, and developer profile. In skills, multiple choice questions are presented which students can answer directly by selecting an answer on the Android screen and then a notification of the correctness of the answer appears. Also presented are questions about the calculation of the preparation of fiscal corrections accompanied by an answer key. In the multiple choice question section, the HOTS (Higher Order Thinking Skill) question type has been used with the C4 question type analyzing question numbers 1-3 and C5 evaluating questions 4-8. Meanwhile, about skills obtained from surrounding companies in Jombang itself. The following shows the closing part of the teaching material,

The third stage is develop, this contextual teaching material is adapted to the needs of class XII accounting students using the previous format processed by researchers in 2023. Draft I was obtained from qualitative data on input and suggestions from experts. Material experts provide suggestions to deepen contextual material, increase the number and variety of questions, improve concept maps and closing sections, and provide contextual approaches at the beginning of teaching materials. Graphic experts provide suggestions for improving the use of letters in teaching materials because letters are not yet consistent, and provide directions for including accompanying materials for teachers and students. Linguists provide suggestions for improving the writing of foreign terms, paying attention to the standardization of words in sentence construction, and changing the guidelines from EYD to PUEBI. Then, from draft I the teaching materials will be corrected by researchers in order to get product validation from experts.

The validation results produce quantitative data that researchers have recapitulated in the calculation results below, The results of the material validation show a percentage of 83.22% with a very decent category. In accordance with the statement (Riduwan, 2016), that the percentage ≥ 81% gets very decent criteria. In this teaching material there are appropriate aspects of content feasibility, presentation, and contextual approaches. Teaching materials use real examples in the surrounding environment to facilitate students' understanding of the material. This is the same as research (Palupi & Susanti, 2019), obtaining a percentage of material presentation of 86.15% in a very appropriate category.

Based on the results of the graphical recapitulation calculations, it was obtained a value of 91.25% with a very decent category. In accordance with the statement (Riduwan, 2016), that the percentage ≥ 81% gets very decent criteria. From a graphical point of view, the feasibility is very good because the teaching materials have a proportional composition both in terms of content and cover. This is the same as another study (Rahmaibu et al., 2016), obtaining a graphical percentage of 80% in the appropriate category. Another study was conducted by (Fitriani & Rohayati, 2019), obtaining a percentage of 85.45% because the completeness of the presentation was quite good in the teaching materials being developed.

Based on the results of language recapitulation calculations, a value of 86% was obtained with a very decent category. In accordance with the statement (Riduwan, 2016), that the percentage  $\geq$  81% gets very decent criteria. The language contained in teaching materials has been adapted to the level of understanding of students. In addition, there are also words that can motivate students and the

sentences used in teaching materials are guided by PUEBI. This is in line with research (Putra & Rochmawati, 2020), obtaining a language feasibility percentage of 80% in the very decent category. Other research was also conducted (Fitriyani & Susanti, 2020), obtaining a language percentage of 81.9% in a very appropriate category in terms of language which is also able to motivate students in the learning process.

Based on the results of the calculation of the average percentage validation for material experts, graphic experts, and language experts for teaching materials, they received a very decent category with a score of 86.82%, so that the teaching materials are ready to be used and support the teaching and learning process in Vocational High Schools. In accordance with the statement (Riduwan, 2016), that the percentage  $\geq$  81% gets very decent criteria. Another study was conducted (S. Rahmawati, 2019), also got a percentage of 84.6% for the average validation calculation with a very decent category. Another study was also carried out by (Anisa & Rohayati, 2019), which received an average validation percentage of 80.55% in the appropriate category so that the teaching materials developed were ready to be used.

To measure the level of effectiveness arising from teaching materials differentiationbased using differentiation-based in subjects Basics of Accounting and Institutional Finance through pretest results and posttest that has been carried out. The effectiveness test here is carried out with assumptions two ways, namely the normality test, and the T-Test (paired sample test). This normality test is used to determine the set the data that has been collected and distributed is normal or not. Normality test carried out by testing statistics through Kolmogorov Smirnov. Process The analysis here uses the help of the SPSS application by determining hypothesis in testing data normally, namely;

H0 = data is normally distributed with a significant level of significance provided by the media Textbook of the basics of accounting and institutional finance with differentiation-based  $\alpha > 0.05$ .

H1 = data is not normally distributed with a significant level provided by the media Textbook of the basics of accounting and Financial institutions use differentiation-based  $\alpha$  < of 0.05.

Before carrying out the normality test, pretest data and The experimental and control class posttests were processed into descriptive data for know the average value and standard deviation. The next stage is carry out a normality test, following the interpretation of the normality test results through SPSS application

From all of test we can be concluded that H0 is accepted and H1 is rejected. This means that the data collected is normally distributed where the values are generated from each class from the pretest and posttest stages overall more than 0.05. Normal Distribution Results Are Also Proven From the statistical test results, the total of the samples tested is "valid", meaning

All data has been processed in its entirety. Then the normality test results It can be seen from the frequency histogram where the mean or average value is distribution of 65.44, standard deviation of 18.473, and N or number overall sample 80. From the data from the paired sample test results in table 4.26 above, it is known; 1. At the output pair 1, the sig value is obtained. (2 tailed) of 0.000 < 0.05,

then it can be said that there is a difference in the average student learning outcomes for experimental class pretest and experimental class posttest (using media learning Textbook of the basics of accounting and institutional finance with differentiation based); 2. In output pair 2, a sig (2 tailed) value of 0.000 < 0.05 is obtained.

So it can be concluded that there is a difference in the average student learning outcomes for control class pretest and control class posttest (using method lecture). So from this statement it can be concluded that there is a significant influence between pretest use learning media Textbooks on student learning

outcomes in lessons Basics of Accounting and Finance for Class X AKL Institutions. From the results of calculating paired samples statistics, it is known that the average. The results obtained by the experimental and control groups were very different, where for the average score of the experimental group before using learning teaching materials Textbooks are 55.75, then the average score results after using the media learning Textbook of the basics of accounting and financial institutions withBased on differentiation, there was an increase of 91.75.

Meanwhile on control class using the lecture method or conventionally, the average learning outcomes obtained before the lesson were 45.25, then after The average learning outcome value is 73.50. Where is the difference from both were in the experimental group there was an increase of 36% while in the control group the increase occurred 28%.

## **CONCLUSION**

Teaching materials based on learning style differentiation used at State Vocational Schools in Surabaya. The process of developing teaching materials was developed using the 4D model, namely define, design, develop, and disseminate. The feasibility of teaching materials was obtained from the calculation results of the average validation of material experts, graphic experts, and linguists with a score of 86.82% in the very feasible category and the teaching materials were ready to be tested.

Effectiveness Results Textbook of the basics of accounting and institutional finance using differentiation-based in basic subjects Institutional Accounting and Finance obtained results from the testing process N-Gain Score is 82.99% with the criteria "very effective", then The results of the Normality test using SPSS showed that H0 was accepted and H1 is rejected, which means the data collected is distributed with normal where the resulting value from each class and the pretest and posttest stages overall were more than 0.05.

Then the results of the T test (paired sample test) obtained a result of 0.000 < of 0.05 means there is a significant difference in the average value between the experimental group and the control group. So that the basic textbooks for institutional accounting and finance have a high level of effectiveness good for supporting students' learning process.

Suggestions for further research are to conduct trials of teaching materials to students, this research does not reach the dissiminate stage so that research needs to continue at the dissemination stage in order to find out the benefits of the developed teaching materials so that it is expected to be able to carry out research with other approaches besides the contextual approach.

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