



The Development of Financial Accounting Learning Tools with Gall and Borg Model

Reni Sovia Putri✉, Cipto Wardoyo

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Faculty of Economics, Universitas Negeri Malang, Indonesia

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Abstract

This research aims to develop financial accounting learning tools namely; development of lesson plan, handouts, and learning media. The object of this research was the 11th grade students of accounting study program in Muhammadiyah 03 High Vocational School Singosari. The model of learning device development used Gall and Borg model. The stages were 1) Initial Needs Analysis; 2) Initial Product Developing; 3) Validation; 4) Product Revision I; 5) Limited Field Trial; 6) Product Revision II; 7) Field Trial; and 8) Final Product. The result of the research shows that the learning tools on financial accounting subject are valid/proper to be used. It is proven by the score of material expert judgment that is 82.8%, by the media expert that is 98.6%, by the education expert that is 86%, by the limited field trial (students and teachers) that are 87.7% and 80.7%, and by Field trials that is 80.2%. In field trials, the development of learning tools can improve student learning outcomes. There are only 3 students who got their grades below the minimum mastery standard.

How to Cite

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✉ Correspondence Author:

Jalan Semarang 5, Sumbersari, Kec. Lowokwaru, Kota Malang, Jawa Timur 65145

Email: renisoviaputri16@gmail.com

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INTRODUCTION

Education is the process of forming and developing the power of reason, skill, and morality of life towards the potential possessed by every human being. An education is considered qualified if the educational process is effective so that learners gain meaningful experience for themselves, and the products of education are the individuals who are excellent and beneficial to society and development of nation. The 21st century demands a critical response to various developments in all aspects. The advancement of science technology triggers the development of environmental, health, economy, and other aspects. The development of science and technology is an obligation to respond for everyone as it requires every individuals to better adapt to change (Wulandari & Mundilarto, 2016). The education world is one of the aspects that is required to respond quickly and appropriately towards the those development of technologies. Environmental changes outside the educational world, from the social, economic, technological, to political environments require the education world to rethink how these changes affect it as a social institution and how to interact with these changes (Sudiby, 2011).

Educational updates is needed and become a guide to improve the quality of education. To achieve this goal, the teacher as one of the components of the education system should be able to improve the quality of teaching. To achieve a better learning, it needs a change in learning that is teacher-centered to a learning that is student-centered. Student-centered learning is a learning that requires students to explore, process, and discover their own knowledge. The role of the teachers in learning activities is also very important, such as providing facilities to ease the student's learning activities. In addition, the teacher should be able to make suitable learning tools and to achieve the learning objectives.

The ability of teachers in preparing learning tools is vital to achieve the learning objectives of accounting in Vocational High School.

Hobri (2010) Stated that learning tools is a set of learning resources that enable students and teachers in conducting learning activities. The learning tools include lesson plan (*rencana pelaksanaan pembelajaran/RPP*), student's worksheet (lembar kerja siswa/LKS), teacher's book (buku guru/BG), student's book (buku siswa/BS), and learning result test. Therefore it is essential for a development of learning tools in order to meet the needs of the students and teachers in mathematics teaching and learning activities in school and to achieve the purpose of classroom implementation.

Based on the observations conducted at the preliminary stage at SMK Muhammadiyah 03 Singosari in October 2016, it is found that in learning activities, the teacher used the teacher-centered learning model. In addition, the learning tools used are not supportive for the achievement of student's learning outcomes and objectives. The Lesson Plan (*rencana proses pembelajaran/RPP*) does not reflect the needs of the students as it seen from the use of a teacher-centered learning model, which resulted in students were got bored and unfocused during the learning process. The teacher was only used the lecture method for teaching financial accounting subjects.

This phenomenon is contrary to the demands of the currently applied curriculum in Indonesia, the Curriculum-13. According to Suherman (2014) the principles of learning based on the 2013 curriculum should be student-centered, where learners should be able to learn individually or in groups where students can cooperate so as to build their will, understanding and knowledge. As for the implication, the teacher should be able to understand the learner's background in making the learning plan in accordance with the demands of the curriculum and its scientific structure. In addition, the teacher must first make the lesson plan (RPP), because the success in making the teaching planning reflects the success in the implementation of learning. The observation results were very contrary to the findings of Hermawanto, Kusairi, and Wartono (2013) who found that in the current learning

process, there are tendencies perceived: (1) the shifting in education from teacher-oriented learning system to student centered system; (2) the growth and increasingly publicizing open and distance education; (3) the increasing number of available learning resources.

Teaching material, according to Hamdani (2011), is a set of systematically organized materials systematically, both are written so as to create an environment or atmosphere that allows students to learn. The teaching materials in SMK Muhammadiyah 03 Singosari are inadequate and the school facilities are underutilized by teachers and students. The teaching material used in financial accounting subjects are still in the form of a printed teaching material that is a module. The teaching material used in the learning process does not optimally help the learning objectives. The teaching materials being used still based on the education unit level curriculum (Kurikulum Tingkat Satuan Pendidikan/KTSP), while the school has implemented Curriculum 2013 which is the replacement of KTSP curriculum.

The urgency of teaching materials to achieve the learning process success has been conducted researches by several parties such as Arani (2017) who found that teachers in Japan are focused more on the students and study of teaching materials to improve the quality of learning. Onyango (2014) who conducted a research at Rachuonyo South Sub-country, found that if teaching materials were obtained in the proper way, they could improve students' learning achievement, and teachers should take a main role in obtaining, using, and developing appropriate teaching materials to improve the student's academic aspects.

The needed development for learning tools in the learning process is a stimulus-response-oriented learning tools. One of them is by utilizing the media in the learning process. Learning media is essential as a tool for the success of teaching, cheap and effective media making is essential to be developed in order to achieve the success of the learning process (Hendriyanto & Putri, 2014). In teaching and

learning process, learning media is a mediator that can represent what is the teacher unable to deliver through certain sentences or words (Yanida & Pramusinto, 2014). Sadiman (2011) explained the purpose of learning media are as follows: (a) to clarify the presentation of messages; (b) to overcome space limitations; (c) to overcome passive attitude, so that the students become more enthusiastic and independent in learning; and (d) to provide common stimuli, experiences, perceptions towards the learning materials.

The observation during the problem identification period indicates that the teachers have not utilized LCDs and laptops in the teaching process. Teachers felt more comfortable teaching with a lecture model without the support of interesting learning media. The school has provided free wifi to support the success of the learning process. However it was not used by the teachers to download videos, images, audios, and other media that can be used in the learning process. Hence, the learning process becomes monotonous and the students were experienced boredom and felt sleepy in the classroom. This is in line with the findings of Kholifah (2016) who found that the learning process by using Swishmax and Screencast O-Matic Software-based media get higher learning outcomes than the learning process by using contextual approach.

Based on the preliminary observations and previous research results, it is necessary to develop accounting lesson plans, teaching materials, and learning media that can overcome the problems above. The development of this learning media is applying and adopting behavioristic learning theory which is embodied in an interactive learning media product. Behavioristic learning theory is behavioral change as a result of the interaction between stimulus and response. An effective stimulus obtaining can improve students' responses in the use of learning media. While the model of learning tools device is by using Research and Development (R&D) model, is often defined as a process or steps to develop a new product or to refine existing products. What is meant by

products in this context is not always in the form of hardwares (books, modules, learning aids in the classrooms and laboratories), but also softwares such as programs for data processing, classroom learning, library or laboratory learning, or education, learning, training, guidance, evaluation, and management models.

Gall, Gall, and Borg (2007) defined research and development as a process used to develop and validate educational products. The steps of this process are usually referred as the R&D cycle, which consists of reviewing the research findings related to the product to be developed, developing the product based on the findings, the testing in the setting where it will be finally used, and revising it to correct the deficiencies found in the testing stage. In a more stringent program of R & D, this cycle is repeated until the test data indicates that the product meets the defined behavior objectives. The learning tools to be developed are printed materials that are packed in the form of Handouts and instructional media packed in the form of Interactive CDs. The developed material is inventory that is adjusted with SMK syllabus and basic competences. The four basic Competencies (kompetensi dasar/KD) to be developed are basic competency (KD) 3.11 Inventory Definition, Classification, and Listing System, Basic Competency (KD) 3.12 Inventory Assessment System, Basic Competency (KD) 3.13 Inventory Assessment Method on Periodic System, and Basic Competency (KD) 3.14 Inventory Assessment Method on Perpetual System.

Previous researcher that discovered the importance of learning tools development is Widyatmoko (2013) Who found that through the development of integrated science learning tools, it helps the students to be more familiar, accept, absorb, and understand the relationships among concepts in the learning process. A similar study was conducted by Ambarwati (2016) where the validation and trial results obtained from the learning tool in the form of student worksheet (LKS) is valid, practical, and effective. So that learning device

can be used as an alternative for learning.

The purpose of this research and development is to produce learning tools products in the form of Lesson Plan (RPP), teaching materials that are packaged in the form of handouts, and effective interactive learning media for inventory materials. The result product is learning tools in the form of Lesson plan (RPP), teaching materials that are packaged in the form of handouts, and learning media by using Ispring Suite 8, Microsoft Powerpoint 2013, and Camtasia Studio softwares with 6 (six) main menu namely purpose, direction, material, exercise, e-book, glossary and interactive quiz which are packed in an Interactive CD. The material presented in this learning tool is the inventory material. The content of the material is adapted to the basic competencies in the syllabus for financial accounting lessons in SMK.

METHODS

The learning tools development uses the development model of Gall et al. (2007) which has been modified in accordance with the needs. There are eight stages of learning tools development, that is (a) need analysis, (b) financial accounting learning tools design development (C) validation, (d) product revision I, (e) limited field trial, (f) product revision II, (g) field trial, and (h) final product. The data generated during the validation phase during the learning device development process are analyzed by using percentage descriptive analysis technique, that is a technique or a way to convert quantitative data into percentages and then interpreted with qualitative descriptions.

The formula used as the measuring tool in assessing the validity of learning media using questionnaires, is using the formula developed by Akbar (2013), that is:

$$P = \frac{\sum x}{\sum x_1} \cdot 100\%$$

information:

P = percentage

x = total score of respondents

x_1 = total score of answers

Then, the final validation result that has been calculated by using the formula is categorized based on certain interval and given the eligibility criteria based on table 1 below:

Table 1. Product Eligibility Criteria

Percentage	Criteria
81% - 100%	Very Eligible
61% - 80%	Eligible
41% - 60%	Fairly Eligible
21% - 40%	Ineligible

Source: Adapted from Ridwan (2013)

If the obtained result from the validation has reached at least 41%, then the learning tool can be used as a media in learning activities, because the percentage of the media has been said fairly eligible. Conversely, if the result obtained is less than 41%, then the learning tools in the form of RPP, handouts, and interactive learning media are considered less valid so that revisions are needed to improve in order to be eligible to be used in learning activities. The one shot case study method is implemented to strengthen the validation results that have been carried out by experts, so it can be concluded that the learning tools is really eligible to use. In one-shot case study method, there is a group of students who are given treatment by providing learning by using interactive learning media on the financial accounting subject which will be expected to improve students' learning outcomes. The post-test result after the treatment will be compared with the previous students' daily test results on the same material (pre-test). If the post-test result is higher than the pre-test result, then it is concluded that effective and efficient learning device is used in the learning process.

RESULT AND DISCUSSION

The development of financial accounting learning tools is developed in accordance with the syllabus and basic competencies used in SMK Muhammadiyah 3 Singosari. This learning tool development procedure is using Borg and Gall's procedure that has been modified and adapted to field conditions, as well as time, effort, and cost limitations. The learning tool development procedure consists of eight stages, that are: (a) need analysis, (b) financial accounting learning tools design development (C) validation, (d) product revision I, (e) limited field trial, (f) product revision II, (g) field trial, and (h) final product.

The first stage is the need analysis stage. Based on observations and interviews with accounting teachers at SMK Muhammadiyah 3 Singosari, it can be concluded that the Teaching Materials that are owned by 11th grade accounting students are still insufficient. Students only have modules as the only source of learning on financial accounting subjects. Teachers have not fully directed the students to find for other teaching materials especially from the internet. While in the school, it has provided free wifi for students and teachers. The facility provided by the school in the form of LCD is still underutilized and teachers only use conventional methods when teaching financial accounting. The lack of teaching aids in the form of learning media makes the learning process becomes boring.

The inventory material is considered suitable for the researcher to be a material in this research and development. Through videos/images/animations, it makes it easier for students to learn inventory material. The presence of videos/images/animations media, students can more easily understand the flow of inventory of goods starts from ordering, stock card recording, stock checking, and record of sales/purchases that occur. The

presence of videos in the learning process of accounting makes it easier for teachers for teaching in class. Students who are usually puts less attention, is expected with this interactive learning media will attract their attention and understand the material has been delivered more easily.

The second stage is the Development of Financial Accounting Learning Tool Design. At this stage, it includes several activities. The first is the formulation of materials for the material (handout). The materials to be included are in accordance with the syllabus of financial accounting subjects on basic competency (KD) 3.11, 3.12, 3.13, and 3.14 which is about Understanding, Inventory Classification and Recording System, Inventory Assessment System, Inventory valuation method on the periodic system, Inventory valuation method on the perpetual system. In the formulation of the points of material, the researcher refers to some books that include the Electronic School Book (BSE) for XI grade accounting students of SMK, with the title Basic Concepts of Accounting and Financial Reporting Volume 2, Accounting 2 and Accounting books from several authors. The next activity is to compile a video for instructional media about transaction recording on the periodic system. The third

activity is writing an essay question in the form of an interactive dialogue with drawings, and compiling evaluation questions in the form of multiple choices and true-false. The fourth activity is compiling e-books of a collection of essay questions, consists of six questions.

The learning tools design comes with games to attract the learner's attention in order to create a learning atmosphere that allows and facilitates learners to understand the material learned. The glossary is structured to add students' vocabulary in accounting. The accounting glossary comes images to attract students' interest while using it. This financial accounting learning media was created with Ispring Suite 8 application. The media creation is based on a previously prepared storyboard. The accounting learning media comes with a user manual to facilitate the user(s) for using this learning media.

The third stage in learning tools development is the validation stage. The validation of learning tools in the form of Lesson Plan (RPP), handout, and learning media involves three experts consisting of a material expert who is an accounting teacher at SMK Muhammadiyah 3 Singosari, a media expert who is a lecturer of Educational Technology, and an education expert who is a lecturer of



Figure 1. The Handout's Front and Back Cover

education in accounting majors. Material validation is intended to provide feedback and responses related to the feasibility of material development. Media validation is intended to provide feedback and responses related to the feasibility of the developed learning media. Validation of learning tools is intended to provide feedback and responses related to the feasibility of the Learning Tool. The data resulted at the validation stage is analyzed by using percentaged descriptive analysis technique that is a technique used to convert quantitative data into percentage form and then interpreted with qualitative sentence. Data analysis is done on each of the question items and on the total of the whole question items.

The result of material validation by the accounting teacher at SMK Muhammadiyah 3 Singosari, is detailly described in the table 2. In table 2, it can be seen from the aspect of material presentation, it gets eligible criteria with the percentage obtained is 81%, the interactivity aspect gets eligible criteria and can be used with the percentage obtained is 91% the exercise question also meets the eligible criteria and can be used with the percentage obtained is 78%, in the feedback aspect it meets the eligible criteria and can be used, the percentage obtained is 80%, while other aspects with criteria is eligible and can be used with percentage obtained is 85%. Material validation by material expert obtained the percentage of 82.8%, which means that material aspect of the accounting learning tools is valid and eligible to use in SMK Muhammadiyah 3 Singosari.

Media validation by expert team obtained an average value of 98.6% which means that the learning media is declared as valid and eligible to use. Based on table 3, it can be seen the results of the analysis of validation questionnaires by media experts from aspects of technical quality and the obtained criteria is eligible to use with 100% percentage, the material presentation aspect obtain criteria is eligible and usable with 93% percentage, the interactivity aspect also meet the criteria of eligible and usable with 100% percentage, in

feedback aspect meets the criteria of eligible and usable with 100% percentage, while miscellaneous aspect meets the criteria of eligible and usable with 100% percentage.

Table 2. Expert's validation results

Assessed Component	Percentage	Eligibility Criteria
Material Presentation	81 %	Eligible to use
Interactivity	90 %	Eligible to use
Exercises	78 %	Eligible to use
Feedback	80 %	Eligible to use
Miscellaneous	85 %	Eligible to use
Average	82.8 %	Eligible to use

Source: Processed Data (2017)

Table 3. Media Expert Validation Result

Assessed component	Percentage	Eligibility Criteria
Technique Quality	100 %	Eligible to use
Material Presentation	93 %	Eligible to use
Interactivity	100 %	Eligible to use
Feedbacak	100 %	Eligible to use
Miscellaneous	100 %	Eligible to use
Average	98.6 %	Eligible to use

Source: Processed data (2017)

Table 4 shows the results of validation analysis by educational experts that obtained an average score of 86% and it can be concluded that the financial accounting learning tools that have been developed by the researchers are valid and eligible to use in the process of accounting learning at SMK Muhammadiyah 3 Singosari. Based on table 4, it can be seen from the aspect of identity and competency that it can obtain eligible criterion and can be used with the percentage of 87%, material and teaching materials development aspect obtained valid criterion and eligible to use with the percentage of 82%, media and learning source development aspect obtained

valid criterion and eligible to use with 87% percentage, the learning scenario aspect obtains valid criteria and eligible to use with a percentage of 88%, and the assessment aspect obtains valid criteria and eligible to use with 87% percentage.

Table 4. Educational Expert Validation Result

Assessed component	Percentage	Eligibility Criteria
Identity and Competency	87%	Eligible to use
Material and Teaching Material Development	82%	Eligible to use
Media and Learning Source Development	87%	Eligible to use
Learning Scenario	88%	Eligible to use
Assessment	87%	Eligible to use
Average	86%	Eligible to use

Source: Processed Data (2017)

During the validation process, there are improvements to the learning tool in accordance with criticism and suggestions by the expert team. Some inputs from the expert team include the need for additional inventory theory and there was an error in writing a purchase and inventory account. There was a need to add a printed guideline for the media usage and add URLs for videos sourced from youtube. The other input was the evaluation tool should not only in the cognitive aspect only and the lesson plan format was to be adjusted with Permendikbud no.103 of 2014. All these inputs from the expert team were used as an improvement of the design of the lesson plan.

The fourth stage in the process of developing the teaching materials is the product revision I. The product revision is implemented based on validation from the material expert, media expert, and learning tool expert. This revision was made to improve the quality of

the materials, media, and learning tools developed before being tested to the students. The revision from the materials expert was done to improve the learning media in terms of material presentation about adding inventory materials and purchasing and inventory account writing errors. The revision by media expert was made to improve the learning media. Based on quantitative data that has been described previously, it can be seen that the media learning by media experts is quite eligible to use but there are some things that need to be revised, namely the need for additional sources in the media learning. The revision from learning tools expert was done to improve learning tools in terms of evaluation tools, in the form of additions towards the evaluation tools besides multiple choice, remedial learning, and enrichment.

The fifth stage is a product trial on a limited sample. Learning media products are brought into limited trial in SMK Muhammadiyah 3 Singosari class XI AK 2 (3-5 students) and accounting teachers in this class, this is intended to obtain input and feedback about products that have been validated by experts. Teachers of the subject and some students as objects of the limited trial, are given a questionnaire to provide an assessment of the learning media that has been prepared. The result of the response from the limited field trial object in detail is shown in table 5. Based on table 5, especially for the response of the students showed the assessment of the quality aspect of the technique obtained valid criteria and eligible to use with a percentage of 83.7%, material presentation aspects obtained valid criteria and eligible to use with the percentage of 86.7%, the interactivity aspect obtained the valid criterion and eligible to use with the percentage of 92.5%, the exercises aspect aspect also obtained valid criteria and eligible to use with the percentage of 82.5%, feedback aspect receives valid criteria and eligible to use with percentage of 90%, and other aspects obtained valid criteria and eligible to use with a percentage of 90%.

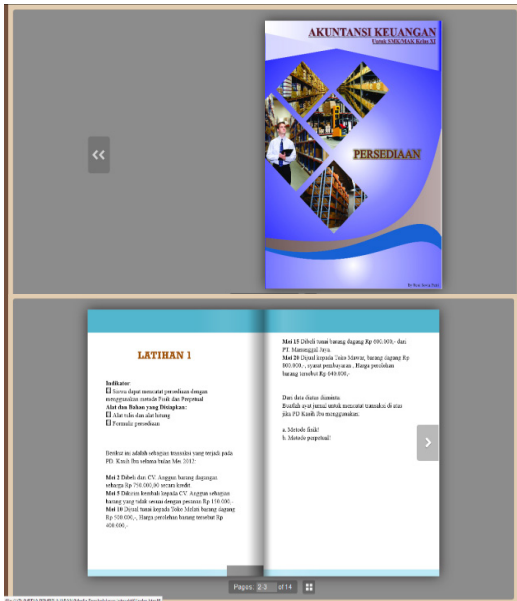


Figure 2. E-book in Learning Media

The results of the assessment by the teacher during the limited field trial, in the assessment of technique quality aspects obtained a valid result and is eligible to use with a percentage of 80%, the material presentation aspect obtained valid criteria and eligible to use with the percentage of 84%, the interactivity aspect obtained valid criteria and obtained a eligible to use with percentage of 80%, aspect of exercises also obtained valid criteria and eligible to use with percentage of 80%, feedback aspect receives valid criteria and eligible to use with percentage of 80%, and other aspects get valid criteria and eligible to use with percentage of 80%.

Based on table 5, the results from the limited field trial (students and teachers) obtained an average of 87.7% and 80.7% and it can be concluded that the accounting learning tools that have been developed are valid and eligible to use in accounting learning process at SMK Muhammadiyah 3 Singosari. There are some suggestions and comments from teachers and students of the object of limited field trials towards the media that have been prepared, including the need for additional theories on the material of inventory, the need

for the addition of videos, images, and animations for the media to be more interesting for learning.

Table 5. limited Field Trial Result (User)

Assessed Component	Percentage		Eligibility Criteria
	Stu- dents	Teacher	
Technique Quality	83.7 %	80 %	Eligible to use
Material Presentation	86.7 %	84 %	Eligible to use
Interactivity	92.5 %	80 %	Eligible to use
Exercises	82.5 %	80 %	Eligible to use
Feedback	90%	80 %	Eligible to use
Miscellaneous	90%	80 %	Eligible to use
Average	87.7 %	80.7 %	Eligible to use

Source: Processed Data (2017)

The sixth step in product development is product revision II. At this stage, the product is revised based on the results of user responses (students and teachers) from limited trials questionnaire data. Revision is implemented to correct the deficiencies of the learning tool products in the form of learning media. Revisions implemented are in the form of additional images, and animations on the learning media. The seventh stage is a field trial. At this stage, learning media products are field tested with more samples that are the students of class XI AK 2 at SMK Muhammadiyah 03 Singosari which consists of 24 students, it is intended to obtain input and feedback about products that have been validated by experts. After the trial, the students are given a questionnaire to assess the eligibility of the learning tools.

Table 6. Field Trial Result

Assessed Component	Percentage %	Eligibility Criteria
Technique Quality	83.5 %	Eligible to use
Material Presentation	79.8 %	Eligible to use
Interactivity	85.5 %	Eligible to use
Exercises	76.7 %	Eligible to use
Feedback	76 %	Eligible to use
Miscellaneous	80.2 %	Eligible to use
Average	80.2 %	Eligible to use

Source: Processed Data (2017)

Based on the field trial analysis table, it can be seen the results of the analysis of questionnaire validation by field trials from the aspect of technique quality obtained valid criteria and eligible to use with a percentage of 83.5%, material presentation aspect obtained valid criteria and eligible to use with 79.8% percentage, the interactivity criteria is valid and eligible to use with the percentage of 85.5%, the exercise aspect aspect is also obtained valid criterion and eligible to use with percentage of 76.7%, feedback aspect receives valid criterion and eligible to use with percentage of 76%, and miscellaneous aspect get the valid criteria and eligible to use with a percentage of 80.2%. The overall result of field trials obtained an average of 80.2% and it can be concluded that the accounting learning tools that have been developed by the researchers are valid and eligible to use in the process of accounting learning at SMK Muhammadiyah 3 Singosari.

The eighth stage which is the final stage in the learning tools development process is the final product. If there is no more revisions, the learning tools in the form of lesson plan (RPP), handouts and interactive learning media that have been validated and can be said as eligible as learning tools, can be used as a support for both teachers and students in the accounting learning process in SMK Muhammadiyah 03 Singosari. The overall results

of the validation analysis show an average of 86% which means the learning device is in the very feasible category for use in the learning process. Details of the validation results by the expert team are outlined in the following table.

Table 7. Validation Results Recapitulation

Assessed Component	Percentage	Eligibility Criteria
Material expert validation average	82.8 %	Eligible to use
Media expert validation average	98.6 %	Eligible to use
Education expert validation average	86 %	Eligible to use
Limited trial (students) validation average	87.7 %	Eligible to use
Limited trial (teacher) validation average	80.7 %	Eligible to use
Field trial validation average	80.2 %	Eligible to use
Average	86 %	Eligible to use

Source: Processed Data (2017)

The eighth stage which is the final stage in the learning tools development process is the final product. If there is no more revisions, the learning tools in the form of lesson plan (RPP), handouts and interactive learning media that have been validated and can be said as eligible as learning tools, can be used as a support for both teachers and students in the accounting learning process in SMK Muhammadiyah 03 Singosari. The overall results of the validation analysis show an average of 86% which means the learning device is in the very feasible category for use in the learning process. Details of the validation results by the expert team are outlined in the following table.

Validations that have been done obtain the result that the developed accounting learning tools are eligible to use as a supporting media in the learning process. To strengthen

the validation results, the researchers used the one shot case study method to reinforce whether the learning media is appropriate for use in the classroom by looking at the student's learning outcomes. After the students are given treatment using learning tools that have been prepared, then they are given post-test exercises. The post-test results are then compared with the minimum mastery criteria/KKM score and the results of previous students' daily test with the same material, which is inventory. The result of the post-test and pre-test is processed to acquire the recapitulation result, and then the conclusion is drawn. From the results of the score processing, it is seen that there are differences in students' score before using the learning media and after using the learning media. When the teacher uses conventional methods, all of the students score below minimum mastery criteria/KKM, with the highest score of 75. Whereas when the teacher teaches by using learning media, students who score under minimum mastery criteria/KKM consist of three and the highest score is 100. Thus the learning device has been validly prepared can be used as a companion in teaching inventory subject.

The result of this research is consistent with the results of research conducted by Yulia (2013) which found that the learning process by using interactive media can improve student learning outcomes in the subject of history. Similarly, the findings from Wihartini and Wibawa (2017) found that the development of e-learning with Microsoft sway program proved to be effective in the economic and accounting learning process at Universitas PGRI Madiun and can have a positive impact in the learning process. The research results of Adi and Arief (2016) show the same thing that is Prezi learning media, peer, and parent's socioeconomic condition influence on learning result of Service Company Accounting subject, both simultaneously and partially.

CONCLUSION

This learning tools in financial account-

ing subject was developed by using a development model based on Gall and Borg (2004) that has been modified and adapted to field conditions, time, personnel, and budget constraints. there are eight steps in developing financial accounting learning tools, namely: (a) need analysis, (b) financial accounting learning tools design development (c) validation, (d) product revision I, (e) limited field trial, (f) product revision II, (g) field trial, and (h) final product. Learning tools that have been prepared include Learning Tools Design, Financial accounting learning media was created with the Ispring Suite 8 application, and financial accounting teaching materials. All learning tools have been tested and are valid and feasible for use in the learning process. The post-test results showed that student learning outcomes were improved after using the new learning tools.

Based on the results of the development result, there are some suggestions given: (1) The use of learning media in class requires careful preparation. It needs to consider the availability of computers/laptops and the ability of students to operate the computer/laptop; (2) The teachers are advised to learn how to operate the media in advance so that learning activities can be conducted smoothly; (3) Students are encouraged to read the media usage guidelines available before carrying out the learning activities; (4) When conducting the experiment, the researcher should conduct pre-test and post-test in order to get complete data to measure the effectiveness level of the learning tools towards the students' learning result; (5) Field trials should involve more than one class/school respondents so that the resulting learning media is actually met with students' needs; (6) The product of this financial accounting learning tools can be further developed by improving the quality of the display and the materials contained; (7) Researchers can then test the development of this learning tools by conducting an action research. Action research is conducted in order that the researchers can get the complete data during the trial process in order to measure the

overall effectiveness of the learning tool; and (8) Researchers can then design the learning tools of financial accounting with other concepts so that the learning media produced is better in both of its concept and material.

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