THE DEVELOPMENT OF ROLE-PLAYING LEARNING MODEL DESIGN ON ACCOUNTING SUBJECT

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Abstract

This study was aimed to generate a product of an effective role-playing learning model design on basic competences of practicing accounting cycles in service companies for the eleventh grade students. The research procedures were done based on ADDIE model. The developed product design was validated by the experts of learning materials, the experts of learning media, the experts of learning design, and the experts of characters building. The product was tested on Stella Duce 1 Senior High School students both in small groups which consisted of 12 people and a large group of 40 people. The instruments which was used to assess product validity included material aspects, media aspects, aspects of learning, and aspects of character building. The result of the experts' validation and testing to students showed that it was a very good developed product. This meant that the role-playing learning model design on basic competences of practicing accounting cycles in service companies for the eleventh grade students was worth implementing in the learning activities.
Keywords: *role-playing, research and development, accounting cycles*

PENGEMBANGAN DESAIN PEMBELAJARAN MODEL *ROLE-PLAYING* PADA MATA PELAJARAN AKUNTANSI

Abstrak

Penelitian ini bertujuan untuk menghasilkan produk berupa desain pembelajaran model *role-playing* yang efektif untuk pembelajaran pada kompetensi dasar mempraktikkan siklus akuntansi perusahaan jasa untuk siswa kelas XI SMA. Prosedur pengembangan produk penelitian dilakukan berdasarkan Model ADDIE. Produk yang dikembangkan divalidasi oleh ahli materi pembelajaran, ahli media pembelajaran, ahli desain pembelajaran, dan ahli pendidikan karakter. Produk diujicobakan kepada siswa-siswa SMA Stella Duce 1 baik kelompok kecil yang terdiri dari 12 orang maupun kelompok besar yang terdiri dari 40 orang. Instrumen untuk menilai validitas produk mencakup aspek materi, aspek media, aspek pembelajaran, dan aspek pendidikan karakter. Hasil validasi dari para ahli dan hasil ujicoba pada siswa-siswa menunjukkan bahwa produk yang dikembangkan dinyatakan sangat baik. Artinya, desain model *role-playing* yang dikembangkan untuk pembelajaran pada kompetensi dasar mempraktikkan siklus akuntansi perusahaan jasa untuk siswa kelas XI SMA layak untuk diimplementasikan dalam praktik pembelajaran.
Kata kunci: *role-playing, penelitian dan pengembangan, siklus akuntansi*

INTRODUCTION

Nowadays, the design of accounting learning models needs to be developed creatively and innovatively. Considering that accounting is an integral part of business activities, Raghavan and Thomas (2014)

proposed the importance of accounting education to create graduates who are able to combine technical knowledge and intellectual sophistication to make creative and ethical decisions in their fields. The combination is needed because when they work they must have the ability to think independently (not continuously depending on supervisor's instructions), the ability of problem solving, and the ability of designing (experimenting) instructions for the project they are working on. This idea is in line with Saloner's view (2011) which stated the importance of accounting learners at this time to have the ability to innovate, that is an approach to problem solving that combines insights, ideas, and tools from engineering, design, art, and social sciences.

In order to make the graduates have the abilities as mentioned above; Popa, Stănilă, and Ponorîcă (2012) stated that students must be trained to learn accounting properly. Students might object to write down all the information the teacher tells during the class, remember it, and reproduce it when needed, for example during a test or an exam. Learning by listening is an activity that is most easily done by students, but they can easily forget what they hear. Conversely, learning by doing is a much more difficult activity, but it can help them to remember what they have done before. Accounting educators, therefore, need to be willing to learn about what will be taught and how to teach it. They must have a willingness to learn about the characteristics of students, knowing how their students learn, and training their students to implement the easy way to learn. This can be seen in the study of Rasmawan (2018) which seeks to develop (renew) inquiry-based worksheets in chemistry. Through the development of learning products, he found that students gave a more positive response, felt easier,

and felt more interested in the learning process of chemistry. It is in agreement with the study of Djidu and Jailani (2018) who attempted to develop a problem-based learning model. They found that, compared to the lecture method, in the development of learning products, students could be more active and easier to master mathematical concepts in high school.

Nonetheless, a teacher is a learning facilitator who brings students to accomplish the learning purpose (Lie, 2013, p. 1). As a facilitator, normatively, every teacher must be professional. However, teacher's professionalism cannot be proved by just having a teacher's certificate. The development of education needs teachers who have passion to be a teacher, willingness continuously to develop creativity, and struggle to teach well. Also, they are expected to be responsible, brave, clever, morally responsible, and skillful in implementing and developing learning processes in unusual ways (Susila, 2013, p. 1). Therefore, teachers need to keep doing a lifelong learning, develop innovative attitudes, and have a high work ethic. Based on the results of the study, the three last mentioned things have proven to have a positive influence on teacher professionalism (Syamsuriyanti & Sukirno, 2018).

There have been many previous studies that empirically investigate various factors related to the effectiveness of accounting learning at the secondary school level. These factors include the following: student perceptions of students' perceptions of accounting lessons (Rungkat, 2016; Kuntari, 2015, p. xvii; Helisya, 2014; Rahmawati, 2017, p. vii; Anggraini, 2016; Fadzila, 2016, p. vi), teaching methods (Adiningsih, 2012, p. ii), independence (Adiningsih, 2012, p. ii); teacher professionalism (Krisnawati, 2015, p. viii), teacher's various teaching styles (Haryoko, 2008, p. x; Deswita &

Dahen, 2013), the use of learning media, student learning motivation (Haryoko, 2008, p. x), interest in learning (Deswita and Dahen, 2013), teacher's skills in explaining material (Ulamatullah, Sedyati, & Suyadi, 2017), teacher competence, student attitudes (Kurnialita, 2013, p. vii), and others. On the other hand, the results of these empirical findings, although carried out in different places, report that these factors have a positive impact on the effectiveness of learning. On the other hand, those various findings confirm that teachers are parties who are very important in determining the effectiveness of accounting learning in the classroom.

Some experts in accounting education have proposed to remodel the conventional accounting learning methods. Brickner and Etter (2008) for example, suggested the needs for active learning strategies in accounting learning. Active learning is a pedagogical approach which is engaging students actively in acquiring knowledge in a learning process. The advantages of active learning for students are that: they are more interested in learning materials; their intrinsic motivation improves; their understanding on learning materials improves as the results of their learning process' refusal; the their willingness and abilities for lifetime to learn are developed; their communication skill will be better; they are able to improve interpersonal relationship, problem solving, and critical analysis, as well as higher thinking skills.

Active learning methods are needed to replace conventional learning which only elaborate the standards and best practices in real world. This method brings the students to be more motivated in improving their knowledge deeply and widely (Warsono, 2010, pp. 230-242). There are many learning methods that can be alternatively chosen in accounting learning activities.

However, in order to choose and apply learning methods, the teacher needs to consider some factors namely: students' characteristics, compatibility of the method and the learning materials, and learning goals. By carefully considering those factors, role-playing learning model could be chosen as an alternative accounting learning in accounting cycle's materials especially for service companies. This model can be applied because accounting tends to be skill-related instead of science-related.

Role-playing is simply defined as a game. However, it is also interpreted as a derivative of a sociodrama so that the students can explore an issue/case in a complex social situation (Blatner, 2009, pp. 87-88). Role-playing is a form of learning experience where students learn together to carry out different roles through given scenarios and interact according to their roles. So, role-playing is considered as a very effective learning model for studying complex social/human systems. Thus, the role-playing learning model is seen an experiential learning (Russell & Shepherd, 2010).

Role-playing implementation will encourage learners' thinking and creativity so that they can develop and practice new language/skills, create motivation, and make the student actively involved in the learning process. Arrangements in role playing are usually easy; it sometimes even needs nothing but people in a room. If the implementation of role-playing requires equipment, the simulation rehearsal can be done beforehand. Meanwhile, if the implementation of role-playing aims to form creative concepts, it is necessary to apply the previous body storming method. A role play is arranged in a scenario so that it can describe the general situation about what actions should be taken, tasks

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to be completed, or goals to be achieved. Players will act according to their respective roles, including in this case the users and supporting extra for the situation. Considering that role playing tries to approach the situations in real life, they are expected and need to be encouraged to improvise (Martin & Hanington, 2012, p. 148). This situation encourages role-playing to develop children's creativity, combine knowledge from various sources with knowledge that has been obtained previously, and carry out social roles that reflect real life (Vinogradovaa & Ivanovaa, 2016). Baroroh (2011) also stated that the implementation of role-playing methods can develop student's character values that can be seen from the indicators of discipline, hard work, creativity, and student's communication skills. Moreover, according to Mardiyan (2012), the implementation of role-playing increases student's activities and learning outcomes in accounting learning.

This piece of study aimed to develop a role-playing learning model design on accounting, especially with material about accounting cycles in service companies. The main purpose was to present a more contextual, innovative, and interesting learning process for students in order to help them comprehend accounting more. This learning process was designed so that students got more concrete learning experiences on how accounting was practiced and how accounting was not separated from other sections in a business entity. In addition, this learning design development aimed to give nurturant effects, which is an improvement on students' learning motivation and their confidence in learning accounting. Therefore, this learning design development was acceptable to the implementation of Curriculum 2013.

METHOD

The study was study and development (R&D). It was aimed to create learning product of effective role-playing learning model design to be implemented on basic competences practicing accounting cycles at service companies for the twelfth grade of high school students. The learning design was developed based on procedural reference model; it followed, particular steps so that the designed product was valid and able to be used in accounting practices. ADDIE model (Analysis, Design, Development or Production, Implementation or Delivery, and Evaluations) developed by Dick, Carey, and Carey (2009, pp. 1-14) was employed as the research procedure. Steps of product development were: *first,* analysis; it identified the current learning model problems faced by teachers and studied the conformity level with its targets: students, learning environment, technology, students' characteristics, etc. *Second,* design; it designed a set of new product development in details. *Third,* development; it was to develop sets of product (materials and tools) needed. *Fourth,* implementation; it was to start applying the new product in learning or real world both in smaller and larger group).

The developed product design was validated by experts. Based on their analysis, suggestions and assessment, the researcher revised the product to finalize the developed product. Product's testing was done after being validated by experts for small and larger group tryouts. In every step of testing, analysis and revision were done to produce a proper and ready prototype of role-playing learning model design. The product validators consisted of 4 lecturers who were responsible for the material, media, learning media, and characteristic learning. The subjects of the product's testing were the eleventh grade of social high school students in Stella Duce 1

Senior High School. There were 12 students for the small group and 40 students for the bigger group.

The instruments of these data gathering were questionnaire and interviews. Questionnaires were to acquire data on the quality of the developed product as well as suggestions to revise the product from experts and students. Interviews were to complement the acquired data by questionnaires. Thus, study data were quantitative and qualitative respectively. Quantitative data were assessment results from material, media, learning design, character education by experts and students about the product quality of the learning model design. Meanwhile, qualitative data were suggestions from them used by researcher to revise the product.

Product revision was analysed and descriptively elaborated based on validation and testing. Conversion steps of assessments were: raw data gathering; scoring; and conversing quantitative data to qualitative data based on reference guidance (Azwar, 2015, p. 163).

FINDINGS AND DISCUSSION

The role-playing learning model design was developed based on accounting learning problems in senior high schools. Learning problems were identified in focus group discussion (FGD) between the researcher and economic teachers in Sleman Regency. The main problems in accounting learning found in FGD were as follows. *First,* was low students' motivation to accounting learning. As reported by teachers, most students did not study independently at home. They finished accounting homeworks right before the class. *Second,* was passive students. Their engagement in the learning itself was generally for doing tasks given by teacher. Students' enthusiasm to ask and give opinions was low or even none. *Third,* was students' low confidence in mastering the material. Students needed directions when they were given tasks in different styles. *Fourth,* was the output. Students' learning result generally had not been satisfying.

Sources of learning problems identified by FGD were as follow. *First*, teachers realized that their accounting learning was still one-way learning: teacher was active, while students were passive. *Second,* teachers realized that they did not vary their learning model. Teachers mostly applied lecturing and Q&A (questioning and answering) learning methods, followed by giving tasks to students. These methods were chosen considering that they were easy to be applied in the classroom. *Third*, the teachers realized that they were confused to choose which effective learning method could be applied in accounting learning.

Table 1
Conversion Five-Scale Score based on Assessment Guidance

Category	Score Interval
Very good	$X > M + 1.50s$
Good	$M + 0.50s < X \leq M + 1.50s$
Fair	$M - 0.50s < X \leq M + 0.50s$
Poor	$M - 1.50s < X \leq M - 0.50s$
Very poor	$X \leq M - 1.50s$

Notes: X = actual score; M = ideal average score; s = ideal standard deviation

They also were less confident that student-oriented learning method would result in better processes and learning results.

The FGD recommended that amending accounting learning was highly needed by considering the following: *first,* students were learning subject. In relation to this, teachers had to have willingness to choose more appropriate learning models which fitted to the learning goals, materials, and students' characteristics. *Second,* the chosen learning models were supposed to enable students to engage more in their learning, to be more interested to learning materials, to improve their intrinsic motivation, to develop their eagerness and skills as lifetime learners, improve communications and interpersonal relationship. *Third,* the learning model was expected to develop highly and widely, to improve problem solving skills, to analyse critically, and to improve high-thinking skills.

In line with the recommendations mentioned above, this study developed a role-playing model design for accounting learning, especially on basic competence of accounting cycles at service companies. This learning design development presented more contextual accounting learning as well as solved accounting learning problems. The learning design was validated by competent experts and students in limited number so that the developed product could be applied to a wider scope.

Steps of the role-playing learning design development were adapted from Chesler and Fox (1966, pp. 22-23) and Lahir, Ma'ruf, and Tho'im (2017).

Step 1: Preparation and instruction. At this first step, the researcher designed a simple case about financial transaction in a small service company based on the researcher's previous study results. A company was designed to have 3 divisions: finance, accounting and sales/procurement

which were connected in financial recording process, while one more party acted as a client who had a financial transaction with that service company. Eight financial transactions were designed. The researcher arranged those financial transactions to be almost the same as real financial transactions in a company as well as designed how each division was connected to other divisions. The role-playing design was arranged in an explicit script explaining sequence of instructions so that students got a clear picture of what they needed to act a role. Students worked in groups of four and each group was formed varying students based on their academic skills with relatively homogeneous characteristics. Therefore, designing a group was aiming students to work the tasks together.

The researcher created rules to ensure a smoother learning process. The rules were as follows. While learning, each student needed to sit down on prepared chair in groups. Each chair represented a role (a sales or procurement staff, an accounting staff, a finance staff, and a client). Each student acted their role based on instruction for each role. Transaction was done in 3 minutes on the first cycle, 2 minutes in the second and third cycles, and 1,5 minutes in the fourth cycle (considering that students would continuously understand how they acted a role and they would get different learning experiences with different acted roles). Each transaction was started by blowing the whistle once and ended by blowing it twice. Students were not allowed to discussed with their friends in same or different group. Transactions were paid by artificial exact amount of money. When the time was up, students with accounting staff role had additional 10 minutes to finish their financial report. After that, all documents for each role were submitted back to the provided envelopes, except instructions

for each role. If a student broke the rule more than once, he was given a yellow-card warning. If he did it twice, a red-card warning was given and he was banned to make any transactions on that date.

Besides these rules, the researcher prepared media for each division. Role instructions and general journal book for accounting division. Role instructions, cash flow book, salary slip, cash out proof, cash receipt, and artificial money to make transactions for finance staff. Role instructions, cash memo, and invoices for sales/procurement division. Role instruction, pictures of table and stationery, invoices, photocopy proof, cash memo, bank statement, and artificial money for client role. Samples of learning media for this role-playing were seen in Figure 1. To have a smoother learning process, the teacher chose 4 students and trained them to act before class as sample of completing a financial transaction.

Step 2: Action and discussion. Principally, the learning process was done in the same way as other learning processes. At the beginning of learning, teacher did opening, giving apperception

and motivation, delivering learning goals, and briefly explaining about role-playing learning model. The teacher was supposed to give motivation to students so that students wanted to engage and be less worried while acting a role. After that, the teacher asked students to gather in groups. Then, the teacher called the four chosen students to do simulation on how to act a role based on scenario, while the rest of the students were asked to carefully pay attention and urge to ask if they were not clear with this task. After that, the teacher explained the rules, distributed the learning media for each role to all groups, and blew the whistle to start the play.

Step 3: Evaluation and reflection. At the end of each role-playing cycle, teacher facilitated students to discuss with groups on what was successful and failed. This evaluation was important so that students would lessen the errors while acting another role in next cycles. When the learning process was done, students did evaluation on their own developed behaviors as well as their same group friends. After that, individually students wrote some learning reflections. By using reflection, students

Figure 1. Learning Media Samples

were expected to give meaning on their learning experiences as well as their feelings along the learning process. On the other hand, the teacher did evaluation during the learning and at the end of the learning process. Teacher also observed on how good the students were engaged during the learning process and assessed students' behavior/character development and knowledge.

The general scenario of role-playing learning were as follows. *First,* teacher prepared scenario, learning media and set up tables and chairs for each role in groups. *Second,* the teacher divided students into some groups before the class started so that they had been sitting with their groups. Each group consisted of 4 students with heterogeneous characteristics. *Third,* teacher opened and explained learning goals, motivated students, and explained briefly the learning model that was going to apply. *Fourth,* the teacher asked the 4 chosen and trained students to act a sample of financial transaction. Other students were asked to pay attention and urged to ask questions for unclear instructions. *Fifth,* the teacher explained the rules of role-playing learning model; *Sixth,* the teacher distributed learning media and instruction for each role to all groups; *Seventh,* the teacher gave instruction to start the play. Students then acted based on given roles. The following is the illustration on how teacher was giving instruction for each transaction: "Please complete the transaction on (mentioning date) in 3 minutes (blowing whistle once). Time is up (blowing whistle twice)". After all the transactions were completed in one cycle, students who acted as accounting staffs had additional 10 minutes to finish their financial report. Then, all documents were submitted back to the provided envelope, except the role instruction to be used to

next cycles. Right before entering next cycle, every group was given 5 minutes to evaluate the performance of each group member. *Eighth,* the teacher did learning evaluation and reflection. *Ninth,* the teacher closed learning activities.

Product set developed in this study was validated by a learning expert, a learning media expert, a learning design expert, and a character education expert. The learning design expert assessed product on its learning aspect. The learning material expert evaluated product on its learning contents/materials. The media learning expert evaluated product on its presentation. The character education expert evaluated product on the learning values. These chosen experts were all lecturers who encompassed adequate competences to validate products based on their expertise.

The four validation results were in the form of quantitative and qualitative data. Quantitative data were the experts' assessment results of the assessed object indicators, while qualitative data were the experts' suggestions of the developed product. Based on experts' assessment results and suggestions, the researcher analysed the data. Data analysis was used to revise the learning design. Below are the data analysis based on four experts' validation.

The validation results from the learning design expert were gained on January 10, 2018. The results from the learning design expert were quantitative data which were converted to qualitative data. It showed the quality of the role-playing learning model design for accounting subject, consisting tof he learning components completeness, the conformity between learning components, the clarity of basic competences and indicators formulation, the conformity between basic competences and indicators formulation, the target clarity,

the conformity between practice book and its basic competences and indicators, contextual practice book materials, systematic material presentation, the clarity of material presentation, the conformity between tasks and standard competences and indicators, the conformity between tasks and materials, the conformity of tasks and material coverage, the accuracy of task model, the clarity of instructions, and the availability of worksheets to activate students and enable them to discuss or work in team with average 4.75 which was categorized as "very good".

Suggestions coming from the learning design expert for the developed product were as follows. *First,* the procedures and role-playing rules were simply made. *Second,* the time allocation to role-play a transaction was differentiated for each cycle (cycle 2 and cycle 3 were done faster);. *Third*, each picture was numbered to fasten and ease students in role-playing. *Fourth*, the nametag for each role was needed. Based on material expert's suggestion, the design had been revised as follows. *First,* the procedures and rules were simplified by revising the diction in order to be more understanding and informative. *Second,* time management to complete each transaction: the first cycle needed 3 minutes per transaction, the second and third cycle needed 2.5 minutes per transaction, and the fourth cycle needed 1.5 minutes per transaction. *Third,* each picture was numbered according to its transaction. *Fourth,* nametags for each role in each group were provided. The learning design expert stated that role-playing model design for accounting learning had been already properly applied after revisions above.

The validation results from the material expert were gained on January 14, 2018. The results from the material expert were quantitative data which were converted to

qualitative data. It showed that learning materials of accounting cycles in service companies covered: the completeness of transaction proofs, the order of transaction proofs presentation, the clarity of each transaction proof, the format validity of each transaction, the completeness of data and information needed, the format validity of each form, the completeness of form needed, the cases' difficult level, the table or figure clarity, the language clarity, the sentence effectiveness, the writing validity, the tasks' difficult level, the clarity of tasks' formulation which arranged by the researcher and showing the average of 4.80 which was categorized as "very good".

The learning material expert did not find any elementary material errors in the developed product. The expert only suggested that the currency IDR/Rp was stated in general journal book, ledger book, and financial report book so that students did not need to write down currency in every completed transaction. The expert also commented on the developed learning product as: "...the quality of learning material is very good; it had fitted with the goals, core competences, basic competences, and learning achievement indicators; materials were already clearly presented so that students easily understand.

The validation results from the learning media expert were gained on January 20, 2018. The results from a material expert were quantitative data which were conversed to qualitative data. It showed that learning media for the learning design was created by considering the attractiveness of the cover design, the compatibility of colors, fonts, font sizes, and the figures/forms/tables clarity, color and size, transaction proof layout, form layout, journal book layout, ledger book layout, worksheet layout, financial report layout, text layout showed the average of

4.40 which was categorized as "very good".

The learning media expert validated that view and presentation aspects represented real picture about company's financial transaction and how the financial information was processed and reported by the company. According to the learning media expert, the developed product was considered appropriate and able to be used in learning process. The learning expert suggested the researcher to be more precise in writing currency and the explanations. Based on this suggestion, the researcher corrected and revised the design. The expert also commented on developed learning product as: "...role-playing model design of accounting materials cycles in service companies was deserved to develop and used widely".

The validation results from a character education expert were gained on January 25, 2018. The results from the character education expert were quantitative data which were converted to qualitative data. It showed that character education for the developed role-playing learning design consisting character relevance assessment with the learning model, character assessment coverage, the instruction clarity of character education assessment, character assessment form completeness, the easiness of character assessment showing the average of 4.60 which was categorized as "very good".

The character education expert assessed the character education contents on this learning design, such as: self-confidence, accuracy, teamwork, and honesty as proper characters for designing the product. Suggestions given by the education expert were that education assessment needed to be simplified (easier) so that character assessment was possible to be done in the learning process. The character education expert commented

on the developed learning product as: "... character education contents in role-playing model in accounting cycles materials in service companies were developed and fitted with the goals and basic competences. Characters that were assessed by students themselves towards their groupmates at the end of learning was realistic compared to characters assessed by teacher during learning".

Based on the experts' suggestions, role-playing learning model design that was revised and considered appropriate was tested to students in both small and larger groups. The small group consisted of 12 students, while the big group consisted of 40 students of Stella Duce 1 Senior High School. Both testings were aimed to revise final product before effectiveness testing of the learning design was done in several schools.

The learning model testing in small groups consisting 12 students was done on February 10, 2018. Data gathered from this testing was qualitative data in forms of comments and suggestions. Those data were then analysed and made them as basics to revise the role-playing accounting learning model developed in this study.

The qualitative assessment of the product design covered content aspects, appearance aspects, and presentation aspects. Content aspect assessment needs to be done by students to ensure that learning material can be understood easily by them, while the interesting appearance and presentation aspects can motivate students to learn more (Jacobsen, Eggen, & Kauchack, 2009, p. 5). Assessment results on content aspects showed that 11 students (91.17%) assessed the contents as "very good" category and 1 student (8.33%) assessed it as "good" category. Assessment results on the appearance aspects showed that 9 students (75%)
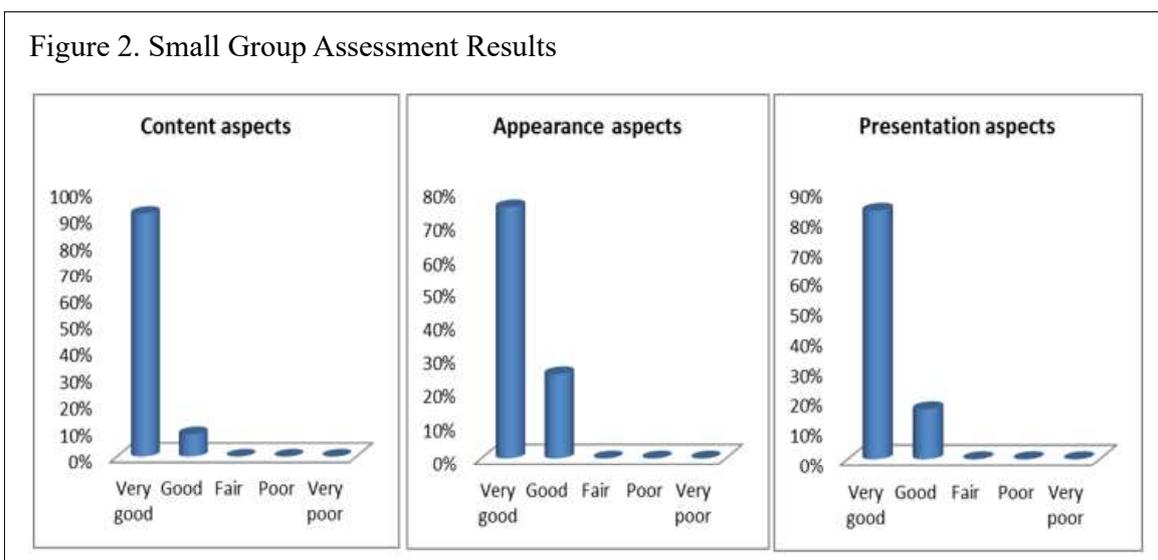
assessed the appearance as "very good" category and 3 students (25%) assessed it as "good" category. Meanwhile, assessment results on presentation aspects showed that 10 students (83.33%) assessed the presentation with "very good" category and 2 students (16.67%) assessed it as "good" category.

Therefore, it is concluded that generally students had very good perceptions, meaning that they considered that the developed product design was already appropriate to their expectations as learners. Figure 2 below presents the assessment results in small groups. Students' comments on small group testing were as follows. *First,* role-playing learning model design developed on accounting learning was very good since it was close to the real accounting practices in the business field. They were directed to a company atmosphere and acted as working accountants. *Second,* in some role-playing instructions, there were some incomplete sentences that were difficult to understand by students. *Third,* an unmatched transaction between the value and number was found in a transaction proof. Based on these comments, the researcher did correction in the transaction proof. The incomplete

sentences in role-playing instructions was in transaction number 3, November 4, 2013, it was initially written "PUSPA Catering submitted to the operational section" then corrected to "PUSPA Catering submitted a note to the operational section". Likewise in transaction number 2, Nove mber 26, 2013, it was initially written "The financial section records the cash in the cash book" then corrected to "The financial section records the cash disbursements in the cash book". An unmatched transaction between the value and number was found on the proof of transaction number 005, November 9, 2013, at the beginning written amount IDR 160,000 and recorded one hundred and sixty rupiahs, then the value of the money was corrected to one hundred sixty thousand rupiahs.

The learning model testing in larger groups consisting 40 students was done on February 24, 2018. Similar to the testing in small groups, data gathered from this testing were qualitative data in forms of comments and suggestions. Those data were then analysed and made them as basics to revise role-playing accounting learning model developed in this study.

Figure 2. Small Group Assessment Results

The assessment of the product design covered content aspects, appearance aspects, and presentation aspects. Assessment results on the content aspects showed that 35 students (87.5%) assessed the contents as "very good" category and 5 students (12.5%) assessed it as "good" category. Assessment results on appearance aspects showed that 32 students (80%) assessed the appearance as "very good" category and 8 students (20%) assessed it as "good" category. Meanwhile, assessment results on the presentation aspects showed that 30 students (75%) assessed the presentation as "very good" category and 10 students (25%) assessed it as "good" category.

Therefore, it is concluded that generally students had very good perceptions, meaning that they considered that the developed product design was already appropriate to their expectations as learners. Figure 3 presents the assessment results in the larger groups.

Students' comments on the larger group testing were as follows. Role-playing learning model design that was developed for accounting learning was never done by their teacher during accounting learning in the class and it was seen appropriate to

learning goals. The financial transactions completed using this learning model challenged students so that it raised their curiosity and motivated them to complete it; and students were asked to be more accurate in connecting internal and external transactions as well as understanding the relations of divisions in a company. Suggestions given in larger groups were very few considering that all students saw this role-playing model design very good. Using a bigger classroom to apply the learning model was to follow up the suggestions in order to have more comfortable learning interactions. The researcher suggested teachers as users of this learning model to use an auditorium/hall or exchange with another bigger-capacity class.

Based on the analysis results of every step, role-playing model design for accounting learning carried some advantages. *First,* the developed role-playing model design contained complete information for each role's scenario, the availability of transaction proofs, rules, evaluation sheet, and reflection. *Second,* financial transaction proofs were completely presented internally and externally. This

Figure 3. Larger Group Assessment Results
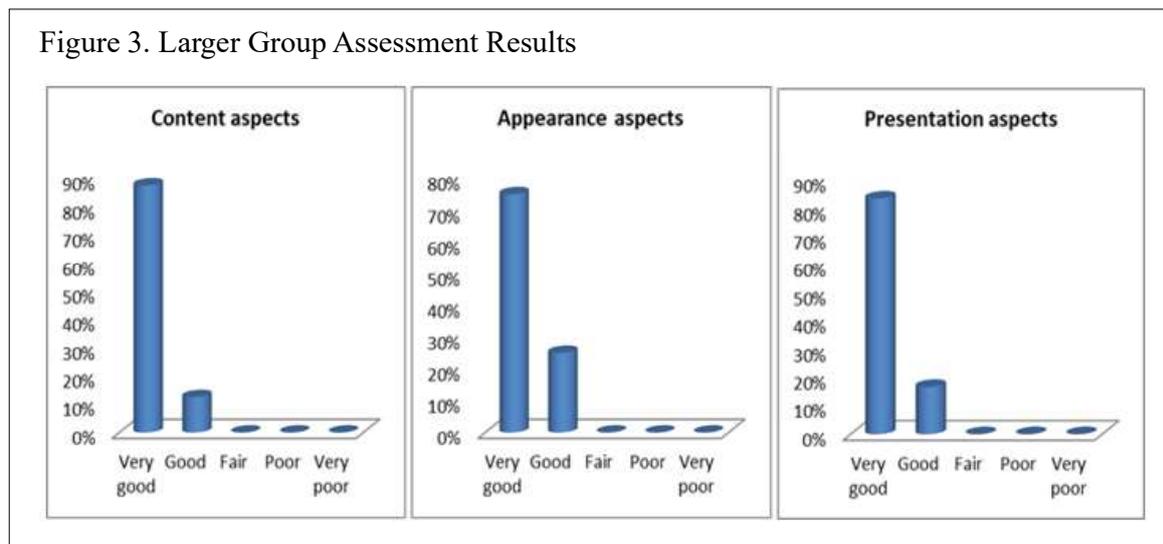
was to give students ideas of financial transactions along with the proofs. *Third,* the developed role-playing model design could be applied by high school teachers to have more contextual accounting cycles learning in service companies as well as to develop relevant characters along the learning processes.

The role-playing model design for accounting learning also had some shortcomings. There were only few provided transaction proofs which had not represented transactions in a company. However, the researcher sought some transaction variations for students to gain more experiences of how transactions related one to another division in a company and how to analyse and record financial transactions. Other shortcoming is role-playing design development for accounting learning needs adequate time preparation to arrange the scenario and learning media. The scenario should be carefully made and it required high imagination so that learning process was able to run as expected and to give a meaningful learning process to students.

Richey, Klein, and Tracey (2011, p. 2) define learning design as a systematic process used to develop education and training programs in a consistent and trustworthy way. The purpose of a learning design is to determine the learning objectives and provide a way to achieve these learning objectives. In other words, the purpose of a learning design is to make learning more effective, efficient, and easier. To achieve that goal, there are a series of stages that need to be made. This study follows the ADDIE model procedure developed by Dick, Carey, and Carey (2009, pp. 1-14). Hopefully, the model developed meets the feasibility aspects and can be utilized for education practitioners in general, and for teachers in particular.

However the teacher is a facilitator of learning when students learn in class (Lie, 2013, p. 1). If learning in the classroom is expected to achieve the goals set, it is necessary to improve the learning process. The learning improvement process starts from the teacher's side. Accounting teachers need to continue to learn and have skills in understanding how students develop. They must also have skills in capturing and maintaining the interests of their students and using class time effectively, using a variety of instructional techniques effectively, and applying these techniques appropriately (Jacobsen, Eggen, & Kauchack, 2009, p. 5). The design of role-playing learning models is one of the models that teachers can choose to improve the accounting learning process, especially on basic competences of practicing accounting cycles in service companies, so that accounting learning becomes more effective.

CONCLUSION

The role-playing model design in accounting learning was arranged with the orders of research and development activities. The learning design development referred to procedural model following certain steps to be considered valid by the experts (material, media, learning design, and character education experts) and able to be applied in learning activities. The research procedures referred to the ADDIE model. The product was developed based on learning needs identification results, design arrangement of new product development, product validation, and product testing.

The product validation results showed that the role-playing model design development for accounting learning was categorized excellent by the experts so that it was declared appropriate for testing. It was tested to students, both in small and

larger groups showing that the product design was excellent. Therefore, the role-playing model design, as the development result, was ready to be applied in accounting practice learning in service companies.

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