# Development of Make A Match Card in Accounting Learning

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Abstract : The purpose of this research is to produce *Make A Match* card game as an enriching media on the material of journal of adjustment trade company class XII Accountancy SMK Negeri 1 Surabaya proven worthy of use in the enriching media as well as gain a positive response from the student. The enriching media was developed with the ADDIE model put forth by Reiser and Mollenda. A test performed on the 20 students of class XII Accounting SMK Negeri 1 Surabaya. The research instrument used in the form of the valley review and validation expert sheet material, the examination and expert validation sheet media, and know the response of the student. Result descriptive data are analyzed with techniques of percentage. The result of "the validation of material expert acquire score 81,42% with a very worthy and validation criteria of media experts obtained a score of 77,14% with the criteria is decent, and the average percentage of student' responses of 96% with criteria very well. The overall result of validation experts and trial limited obtained an average score of 87,15% so that it can be concluded that the enriching media developed stated very decent used in the enriching of learning as well as gain a positive response from the student.

## **1** INTRODUCTION

As time, globalization has great influence in the development of science and technology became one motivating factor in advances in various fields and the order of life, one example is the development in the field of education to be one of the efforts to improve education toward better, in accordance with the purpose of education is the intellectual life of the nation.

The teacher as a facilitator in the learning curriculum 2013 must be able to present creative learning activities and innovative that will encourage students to be more enthusiasm in learning, it can be seen from the development of the media used by the teacher. According to Kosasih (2014: 49) more and more media appropriate learning aids to learning the greater the student's absorption of the material learned.

One pleasant media is a media game. According to Sadiman (2014: 78) media game is something fun to do and something entertaining. The game provides an opportunity for students to practice real behavior so that media education has the advantage that the form of the game the game allows the active participation of students to learn.

The presence of media contained in the current field is very diverse and varied, especially the media in the form of average game matching combined with the material and images that are tailored to related material, it will also include questions and answers presented in the media so as to increase knowledge of students.

In the 2013 curriculum, knowledge assessment done by teachers is not solely to determine whether the student has achieved mastery learning (mastery learning) but the assessment is indicated to identify weaknesses and strengths (diagnostic) learning process. To that end, the provision of feedback (feedback) to students and teachers is very important, so that the assessment results can be immediately used for the improvement of the quality of learning. According to Permendikbud Number 22 the Year 2016 About Standard Process Elementary And Secondary Education suggested that the results of authentic assessment used by teachers to plan improvement program (remedial) learning, enrichment (enrichment), or counseling services.

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Based on observations and interviews conducted in SMK Negeri 1 Surabaya, obtained information from some students of Accounting SMK Negeri 1 Surabaya, which considers that the material adjusting journal trading company is a material that is difficult, because it requires precision, reasoning more, and understanding on methods recording used in working on adjusting entries, and obtained information that the medias enrichment activities are less attracted the attention of students, because it is still limited to powerPoint, whiteboards, and teachers just give exercises through the booklet is done either independently or in groups, and sometimes students were told to learn on their own. These conditions resulted in students feel bored and less enthusiastic in doing the enrichment provided by the teacher. Based on these,

Based on the above data, the researchers chose a media card game Make A Match as enrichment media to create learning more interesting and fun. Rusman (2011) states that the card Make A Match is a game media looking for a partner, this technique uses a card, each card will be inserted images or text as an explanation of a concept of the material presented and each card has a pair corresponding to the picture or text. Media Make A Match card game will be packaged with a card game with the presentation of the questions and answers are more varied and more interesting card designs so as to attract the attention of students as well as to determine the level of students understanding of the material. According to Earth (2015) Make A Match card game is very effective when used in learning activities. Meanwhile, according to Devi (2013) Make A Match card usage can increase the curiosity of students, enhance student motivation, and is a fun method.

Based on the description above, researchers are trying to develop a card game Make A Match as enrichment media on learning to account with titles Card Games Development Make A Match For Media Enrichment In Journal-Material Trading Company Adjustment Class XII at SMK Negeri 1 Surabaya.

## 2 LITERATURE REVIEW

#### 2.1 Understanding Learning

According to Hamalik (2014: 57) argues that learning is a combination that includes elements arrayed human, material, facilities, equipment, and procedures interplay achieve the learning objectives. The basic word "learning" is learning. According to Surya (in Kosasih, 2014: 2) defines learning as a process performed by an individual to obtain new behavioral changes as a whole, as a result of the individual's own experience in interacting with the environment.

#### 2.2 Understanding Media Learning

According to the terminology, the word comes from the Latin media "Medium" which means an intermediary or introduction. Educational and Communications Technology Association (Association of Education and Communication Technology / AECT) in America states that the media is all kind of channels that people use to distribute a message or information (Kosasih 2014: 50). Media is a human existence that allows it affects others who do not hold a direct contact with him (Marshal in Trianto, 2014: 234) ... Media study covers only the media that can be used in the learning process in an effective and well-planned.

#### 2.3 Media Card Games Make A Match

According to Sadiman, et al (2014: 75) game is every contest between the players interact with each other to follow or abide by certain rules, in order to achieve certain goals anyway. Meanwhile, according to Smaldino, et al (2014) the game will create a learning environment that is lively, fun, interesting, and competitive learning environment, in which students follow the rules that have been established by the time they tried to reach the learning objectives are challenging. A game can also provide a diverse learning experience.

Rusman (2011) states that, the card Make A Match is a game media looking for a partner, this technique uses a card, each card will be inserted images or text as an explanation of a concept of the material presented, and each card has a pair corresponding to the picture and text. Meanwhile, according to the theory Question-Answer Relationship (QAR) developed by Raphael and Pearson in Dell'Olio & Donk (2007) states that, the technique seeking pairs of cards and card answers the question, can help learners find the relationship between the questions and answers- answers, as well as to prove the language used to describe the related questions and answers.

Learning Make A Match type groups or looking for a partner is one of the alternatives that can be applied to the students, the application of this method starts from techniques that the students were told to look for pairs of cards that is the answer/question before the deadline, students can match the cards were given points. One advantage of this technique is the student looking for a partner while learning about a concept or topic in a fun (Suparwadi, 2015). In looking for a partner that card, students are required to think critically in finding pairs of cards that fit between questions and answers contained in the card Make A Match.

### **3 METHODS**

This type of research used in this research is the development with reference to the ADDIE development model developed by Reiser and Mollenda. ADDIE development model consists of five stages (Person, 2011), the analysis phase (Analysis), stage design (Design), stage of development (Develop), the implementation phase (implementation) and evaluation phase (Evaluation). Subject tests include subject matter experts as people who are competent in the field of accounting education (one lecturer of accounting education and one teacher accounting subjects), media experts as those who have competence in the development of print media in particular cards (one lecturer FIP), and students Accounting XII class at SMK Negeri 1 Surabaya 20 students for a limited trial. The type of data acquired is the data type of qualitative and quantitative data. The qualitative data obtained from the study of subject matter experts and media experts, while quantitative data obtained from the results of expert validation of materials and media experts, and student questionnaire responses were analyzed by using percentage.

Data collection instruments used in this study was a questionnaire sheet consisting of the open and closed questionnaire. The open questionnaire consisted of a questionnaire study material experts and media experts who analyzed qualitatively to provide an overview and suggestions that have been given to the lack of enrichment media associated with media quality format and concept of the material used. while the enclosed questionnaire consisted of expert validation sheet material and media experts as well as the student questionnaire responses were analyzed quantitatively to determine the feasibility and the student's responses regarding enrichment media card Make A Match developed.

Sheets study of media experts and subject matter experts in qualitative descriptive analyzed. While the experts and validation sheet student questionnaire responses were analyzed descriptively quantitative in the form of a percentage. Data validation results and student questionnaire responses were analyzed by means of:

$$E \frac{F}{N \times I \times R} \times 100\% \tag{1}$$

Information:

K = Percentage eligibility criteria

F = The total number of respondents

N = the highest scores in the questionnaire

I = The number of questions in the questionnaire

R = Number of respondents

The percentage is then interpreted by provisions such as Table 1 and Table 2.

criteria
Interpretation
Very
Unsuitable
Not feasible
Decent enough
worthy
very decent

Table 1: Criteria Interpretation

Source: Riduwan (2015: 15)

Criteria for interpretation in Table 1 is used as a benchmark in interpreting validation experts.

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Table 2: Criteria for Interpretation				
	Percentage	criteria		
	(%)	Interpretation		
	1-20	Very No Good		
	21-40	Not good		
	41-60	Pretty good		
	61-80	Good		
	81-100	Very good		
a	D'1	(2015 15)		

Source: Riduwan (2015: 15)

Criteria for interpretation in Table 1 is used as a benchmark in interpreting the results of the questionnaire student response.

### 4 RESULT

Model development in this research using ADDIE development model developed by Reiser and Mollenda through the stages of analysis (analysis), design (design), development (develop), implementation (implementation) and evaluation (evaluation). In the analysis phase of data collection and analysis of information to define the problem and make further plans in the form of enrichment media Make A Match the card will be developed.

There are three activities carried out in this stage is the analysis of problems, requirements analysis, and formulation of learning objectives. The analysis is done by examining issues of curriculum used, the use of enrichment media and constraints experienced during enrichment program. Followed by a needs analysis to determine the characteristics of students who will be the subject of a trial. Formulation of learning objectives based on indicators of learning the basic competencies (KD) three on the knowledge students must achieve in the material adjusting journal trading company.

Based on the analysis of the problem, in the development of the card game Make A Match as enrichment media adapted to the curriculum applied in SMK 1 Surabaya, curriculum 2013. In analysis of the problem is analyzed student performance in the learning process, especially on remedial and enrichment activities. The learning process has a standard graduation education units that must be met by the student. Underlying issues in this study were students experiencing difficulties in material adjustment journal trading company, therefore, there are students who have grades below the standard of graduation, so the teacher will conduct remedial programs for students who have not completed and for students who have reached KKM will continuing with enrichment activities.

In carrying out enrichment activities at SMK Negeri 1 Surabaya, the media used by teachers, PowerPoint, whiteboards and teachers only provide sheet exercises or discussions that led to the process of enrichment activities are less attractive, so that students are less motivated to learn in enrichment activities.

From the results of a needs analysis, obtained by the analysis of the accounting subjects trading company that has been granted, there is a trade company material adjusting entries that are considered difficult, by assessing the competence standards and indicators of achievement of learning outcomes in the material. Furthermore, analyzed characteristics of students that include academic ability and the learning experience of the material adjusting journal trading company, in order to obtain the appropriate students character is the subject of the trial. Students who become the subject of a trial is a class XII student of Accounting SMK 1 Surabaya, which has aged 16-17 years, the students have acquired the material adjusting journal trading companies and the value obtained has reached the minimum completeness criteria determined by the teacher,

Next is the stage of design (design), this stage, created the design of the card game Make A Match using Corel Draw X5 developed starting in preproduction activities to design the contents (matter) and an appropriate presentation according to the study. Contents (matter), arranged on lattice made about the appropriate indicators of learning that has previously formulated to be used as a measure of students. The form and content type of enrichment and tailored to the learning material to be used, ie adjusting journal material trading company. At this stage anyway, conducted to design media card game Make A Match as enrichment media to material adjustment journal Accounting XII class trading company.

Next is the stage of development (develop). This stage, aims to produce a viable enrichment media used based on the input of experts that includes subject matter experts and media experts. The design concept of the development that has been made at the design stage, is realized in the development stage to produce a first draft were subsequently examined by experts. After the study is completed, it will be revised in accordance with the input of experts. The revised form of the second draft is validated by experts and analyzed, then performed the writing of the report on the development of the media.

In the implementation phase, enrichment media such as Make A Match cards that have been tested because the quality (draft III) is then tested on a limited basis to the 20 students in SMK 1 Surabaya. Students who are the subject of this research is the students who have obtained the material adjusting journal trading company, which is a class XII Accounting drawn at random (random), as a sample product trials.

The last stage is the stage of evaluation to see whether the products are developed successfully, in line with expectations or not. At this stage it will be known to the feasibility of enrichment media developed from the results of the validation and testing is limited in order to obtain the final result of the final product enrichment media card Make A Match in the material adjusting journal XII class trading companies Accounting at SMK Negeri 1 Surabaya.

From score analysis score matter experts obtained an average score of 81.42% with eligibility details on the content and quality aspects of examination of 82.25% and aspects of instructional quality by 80%. Media expert validation score shows the average score for the enrichment media

ratings developed by 77.14%. With details to aspects of legibility by 75%, the aspect of ease of use by 80%, the quality aspect views / impressions by 76%, and the aspects of quality management of the program by 80%. As well as a 96% interest in the students.

# **5 DISCUSSION**

Overall the game development process Make A Match cards as enrichment media to material adjustment journal XII class trading companies in SMK Negeri 1 Surabaya has been implemented in accordance with the ADDIE development model which consists of the analysis phaseanalysis (analysis), design (design), development (develop), implementation (implementation) and evaluation (evaluation).

At this stage of the analysis (analysis), an analysis of the performance (the problem), requirements analysis, and the formulation of objectives. In a performance analysis obtained information that SMK Negeri 1 Surabaya using the curriculum of 2013. The use of media in enrichment activities in the field is still lacking, because only limited to the use of PowerPoint, whiteboards, and a sheet of exercises given by the teacher. This raises the level of enthusiasm of the students in learning is very less, as students become less enthusiastic in learning. One way to increase the motivation of students in enrichment activities is to make the activity fun. According Arsyad (2013)

In the requirements analysis, researchers determined the needs of what is required in the development of media card game Make A Match, from the analysis, obtained by the characteristics of students who become the subject of a trial based on academic ability, learning experiences, as well as students opinions regarding media card game Make A Match namely Accounting class XII students who have obtained the material adjusting journal trading company. Students who become the subject of a trial with an average age of 15-17 years. According Personal (2011) in this age students can think abstractly and to find solutions to solve the problems faced. The student has to obtain any materials trading company adjusting entries.

Then that is formulating learning goals. The formulation of the learning objectives are stated in the indicators contained in basic competence adjusting journal material trading company. The formulation of this goal will be used to develop exercises for enrichment media card game Make A Match.

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In the design phase (design), this stage is made draft card game Make A Match menggunanakan Corel Draw X5. The design of the contents (matter) is done by creating a lattice problems that will be included in a card game Make A Match that includes the selection of the questions and drafting matter. Media Design Make A Match card game that includes the design of the front card, rear card design and card packaging design Make A Match. The selected color in the design of the card game media Make A Match is a bright color such as green, yellow, Tosca, blue, orange, because the bright color tends to demand a teenager because it can give the impression of an interesting and impetus in learning the material presented that will make students enjoy learning, so that will facilitate the implementation of the enrichment.

Next Phase Development (Develop), the design of which has been made in the design phase will be realized then produces a draft I. The results of the first draft is then reviewed by subject matter experts and media experts which would then be revised based on suggestions and feedback experts. From the advice and input materials experts do repairs, namely, (1) In the aspect of content / material about to be replaced in the form of reasoning to increase the level of thinking of students (2) In the aspect of constructional look for solutions so that students no longer in menghitunh adjusting entries in applying card Make A Match (3) In the aspect of completeness for building pebelian explained that the purchase date, in order to make it easier to calculate depreciation.

Then the improvements made to the medium enrichment based input media experts as follows: (1) In the aspect of its simplicity to use, recommended media card comes with care instructions for the cards more durable and RPP included in the guide game. (2) In the aspect kualiats views and impressions, the background should contrast with the text so that the text does not blend in with the background and give a clear impression so easily read by the user. (3) In the aspect of the quality of program management, rules play comes with the role of teachers, so that enrichment can run well, because in this case the teacher as observers in the implementation of learning in the classroom (4) In the aspect of legibility, adjustable font for easy reading given cards Make A Match is a print media that is used directly by students in learning, so that students do not feel the difficulties in the use of cards Make A Match as enrichment media. The

repairs or revisions will produce the third draft. DraftIII will be validated by subject matter experts and media experts to gain an appreciation of the media is developed.

The next phase of implementation (Implementation), at this stage, the third draft in the form of a card game Make A Match as enrichment media to material adjustment journal XII class trading company that has been validated to be tested is limited to 20 students of class XII SMK 1 Surabaya Accounting. According Sadiman (2011: 184) a media needs to be tested to 10-20 students who can represent the target population. After completion of the test, students are asked to complete a questionnaire to evaluate the response and student opinion regarding the media card game Make A Match on adjusting journal material trading company. Before starting the test, the researchers explained the purpose of the implementation of the trial and how to use enrichment media card game Make A Match.

Last Stage Evaluation (Evaluation), the last stage of a feasibility evaluation to see if a product is developed successfully, in line with expectations or not. From the data validation results matter experts and media experts as well as the student questionnaire responses from limited testing, data analysis was then used for the preparation of the development of the card game Make A Match as enrichment media to material adjustment journal trading company class XII SMK Negeri 1 Surabaya. Feasibility media card game Make A Match as enrichment media to material adjustment journal trading company that developed measurable validation of the results sheet material experts and media experts as well as the student questionnaire responses obtained from the experiments performed. Validator matter experts, namely professors of accounting and accounting teacher, media validator is lecturer of education technology, and testing on 20 students of class XII Accounting at SMK Negeri 1 Surabaya.

Based on the results of validation, card games Make A Match as enrichment media materials trading company adjusting entries by subject matter experts from the aspect of quality of content and objectives, and instructional quality obtained an average percentage of 81.42% eligibility. According Riduwan (2015) the percentage of  $\ge 61\%$  are feasible. It can be concluded that the media card game Make A Match as enrichment media to material adjustment journal trading company that developed included in the category of very decent is used in the learning process in enrichment activities in Vocational High School in terms of media were presented with the percentage of eligibility at 81, 42%. Similar research is also carried out by the Earth (2015) Make A Match card game is very effective when used in learning activities.

Based on the results of the validation media, card games Make A Match as enrichment media to material adjustment journal trading company by media experts on aspects of readability, ease of use, quality views/impressions, and the quality of program management obtained an average percentage of 77.14% eligibility , According Riduwan (2015) the percentage of 77.14% are feasible. It can be concluded that the media card game Make A Match as enrichment media on penyesuaiana journal material trading company that developed included in the category appropriate to use in the learning process in enrichment activities in Vocational High School in terms of media presented.

Student response, The test is limited performed on 20 students of class XII Accounting at SMK Negeri 1 Surabaya. This is consistent with the theory of Sadiman et al (2011) at this stage of the media tested using limited testing a small group, which is tested to students by the number 10-20. That is because if it is less than 10, then the data obtained are less able to describe the target population. Meanwhile, if more than 20, then the data or information obtained will be in excess of that required, making it less effective for analysis in the evaluation of small groups.

In limited testing activities, students are given an explanation regarding the media developed, and then the students were divided into 5 groups, so that one group are 4 students. Then each group is given a card game media Make A Match for student use and at the end of the activities students are asked to complete a questionnaire response of the students to give their opinions to the media developed.

Based on the results of questionnaires that assessed by the component quality of the content and purpose. Aspects assessed include the accuracy and appropriateness of the percentage of 95% is obtained with very good criteria. This indicates that a summary of the material and the matter of the media is in conformity with the adjustment of the journal material trading company.

On the quality of the instructional aspects assessed include providing assistance in learning and motivate quality obtained by a percentage of 96.25% with the criteria of very good. This suggests that the design of the card game media Make A Match is able to make students study independently on enrichment activities and improve the morale of the students to learn.

On the technical quality aspects assessed include readability, ease of use, the display quality and management quality acquired percentage of 96.25% dengat criteria of very good. This indicates that the guidebooks provide facilities for students with an attractive display quality.

The overall result analysis of student questionnaire responses, it can be concluded that the media card game Make A Match as enrichment media to material adjustment journal trading company is already well developed for use in the learning process in vocational enrichment activities, because of the results of the mean student questionnaire responses overall average aspect obtained by 96% with the criteria very well. Similar research was also carried out by Keith (2013) Award enrichment program through games can improve students learning potential. This is consistent with the theory of Levie & Lentz in Rohman (2013: 161-162) the use of media in learning is able to attract and direct attention to the students to concentrate on the content of subjects related to the meaning of visual display or text accompanying the subject matter.

## **6** CONCLUSION

Based on the results of research and development has been done, it can be concluded as follows. 1) The development of the products with media card game Make a Match as enrichment media to material adjustment journal trading company. The development process in accordance with the development model ADDIE (Analysis, Design, Develop, Implementation, and Evaluation) through five stages of development which comprises the step of Analysis, Design, Development, Implementation, and Evaluation. Make A Match Card games are reviewed and validated by two subject matter experts and a media expert. 2) Make A Match Card games have been developed, in terms of the results of the validation subject matter experts and media expert, acquire criteria are eligible to be used as enrichment media to material adjustment journal trading company. So it can be used in enrichment learning activities in schools. 3) In the test phase is limited, it can be seen students response to the card game Make A Match as enrichment media to material adjustment journal trading company was positive, with the criteria very well. In accordance with the analysis of student responses Make A

Match card game can be recommended as an enrichment media to material adjustment journal trading company.

## ACKNOWLEDGEMENT

Based on the conclusions above, the suggestions related to the development that has been done is as follows. 1) Media card game Make A Match as enrichment media to material adjustment journal trading company, it is suggested for further research to develop media card game Make A Match with another subject. 2) further development expected development Make A Match card game developed in the form of IT, so the use of more effective and efficient.

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