

# THE DEVELOPMENT OF ACCOUNTING UNO CARD GAME AS AN ACCOUNTING LEARNING MEDIA

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## Abstract

This research was Research and Development (R&D). The research aimed at developing Accounting Uno Card Game as an Accounting Learning Media in basic competence of adjustment entries and knowing the feasibility of Accounting Uno Card Game as an Accounting Learning Media in in basic competence of adjustment entries. Questionnaires used for data collection and were analyzed using qualitative quantitative method. Research results: (1) five stages of developing Accounting Uno Card Game were Analysis, Design, Development, Implementation, Evaluation, (2) the assessment score by material expert was 4.92 classified as Strongly Feasible, (3) the assessment score by media expert was 4.38 classified as Strongly Feasible, (4) the assessment score by teacher was 4.26 classified as Strongly Feasible, (5) students' responses obtained in small group tryout was 4.21 classified as Strongly Feasible, while in field tryout was 4.10 classified as Feasible, and the increase from pre-test to post-test was 57,5% classified as Moderate.

Keywords: Accounting Uno Card Game, Accounting Learning Media

## INTRODUCTION

Lifelong learning is an obligation in human life because learning process occurs during a person is lived and the learning process runs throughout their life. Learning is an effort that was done purposely by educators to convey knowledge, organize and create an environment system with a variety of methods so that students can undertake learning activities effectively and efficiently with optimal results (Sugihartono, et al., 2012: 81). Vocational High School as known as SMK is a formal institution that serves to prepare the students in order to be able to wok based on the skill and knowledge that participants have after graduating. Therefore, the learning process is organized in Vocational High School needs to look at the important components such as learning strategies, learning resources, media, learning and teaching model that are used. One of the applications of learning strategies is the use of teaching media in presenting the material to the students.

Fun learning can help students to understand the material presented by the teacher. One way to be able to create a learning atmosphere that is fun, interesting, and memorable is to involve the creative and innovative learning by utilizing learning media. According to Rossi and Briedle (1996) as cited in Sanjaya (2013: 163) learning media is all the tools and materials that can be used to achieve the goal of education. One of the learning media card is uno card. The uno card game is pretty easy and it can be used to play at the age of seven years. Uno card first created in 1971 in Reading, Ohio by Merle Robbins. (Hidayati & Hakim, 2014: 2). The rules of uno card game are each player initially gets seven cards. At the beginning of the game, a single card is drawn from the pile card and this card acted as

deal card. In order to be able to play this card, a player in turn should equate the number or the color of the card, if there is no match with the card then the player must take one card as punishment.

J. Briggs as cited in Susilana & Riyana (2008: 66) suggests that the media as a tool to give stimulus for learners or students so that learning occurs. An effective learning process happens with teacher who seek one important aspect in learning, i.e. students should be active both physically, mentally, and emotionally. The uno card game can be used as a learning media by engaging students play an active role in physical, mental, or emotional, such as expressed by Daniel (2015), some educational benefits of uno card are fine motoric skills, social interaction, and strategic thinking. It is suitable with statement of Kumar & Lightner (2007) and Wilson et al., (2009) as cited in Spandler (2016: 108) that educational games can focus on students' attention, can enhance positive peer relationships, and can lead to a deeper understanding of material and more advanced problem-solving skills.

Based on the results of observation on November 26<sup>th</sup> 2016 in class X AK 3 SMK Negeri 7 Yogyakarta in the accounting service company subject, it can be noted that the use of learning media in that subject is already done, but in practice still has not impacted optimally. This is because teacher used lecture method with power point media to explain the material so that the learning activities became teacher centered and it will not involve students as a whole. There are 8 students of 28 students or equivalent to 28.6% of students are actively involved to respond the questions from the teacher during the learning process. While the rest of them looks quiet, sleepy, and does not respond to teacher's question. In addition, teacher also use a sheet of exercise continuously to test the students' understanding. This monotonous learning process with less comfortable condition makes students get quickly bored during the learning process. When students feel bored then it will tend not to pay attention to the explanations from the teacher so that the goal of the learning process is not achieved.

The position of the media in the learning process is very important because it can serve as an intermediary which will help in covering up the deficiency and obscurity of the materials submitted by teachers. Learning media can clarify the presentation of messages and information so it can facilitate and improve the processes and outcomes of learning. (Kustandi & Sutjipto, 2013: 23). One of the learning media that can be developed is Accounting Uno Card Game media that will be modified from uno card game in general. Accounting Uno Card Game will consist of several material cards and question cards of adjustment entries basic competence to help the students understanding the material during learning the material because the adjustment entries is categorized into material that is difficult and it also requires a logic understanding. Based on the background above, researcher encouraged to conduct the research entitled "The Development of Accounting Uno Card Game as an Accounting Learning Media in Basic Competence of Adjustment Entries for Students in Class X AK 3 SMK Negeri 7 Yogyakarta Academic Year 2016/2017".

Research objectives of this research were developing Accounting Uno Card Game as an Accounting Learning Media in in basic competence of adjustment entries for students

of class X AK 3 SMK Negeri 7 Yogyakarta, and knowing the feasibility of Accounting Uno Card Game as an Accounting Learning Media in basic competence of adjustment entries for students of class X AK 3 SMK Negeri 7 Yogyakarta.

## RESEARCH METHOD

This research belonged to Research and Development (R&D). This research procedure applied the ADDIE model of development by Dick and Carry, which consists of Analysis, Design, Development, Implementation and Evaluation. This research was conducted in SMK Negeri 7 Yogyakarta that is located at Jalan Gowongan Kidul JT III/416. This research was conducted from November 2016 until April 2017.

The subjects of this research were one material expert, one media expert, one accounting subject practitioner, and Accounting Students of class X in SMK Negeri 7 Yogyakarta which consisted of eight students of class X AK 2 for a small group tryout and thirty one students of class X AK 3 for field tryout to implement the Accounting Uno Card Game as an accounting learning media. Object in this research was the feasibility of Accounting Uno Card Game as an accounting learning media by the validator as seen from learning aspect, material aspect, language aspect and display aspect.

The data that were collected in this research consisted of two data, there were qualitative and quantitative data. Qualitative data is data about the development of the learning media that took the form of criticism and suggestion from media expert, material expert, accounting teacher and students. Quantitative data were obtained from the assessment of learning media by media expert, material expert, accounting subject practitioner, and students.

The data collection techniques in this research used questionnaire. Data collection instruments that was used in this research was questionnaires. There were two kinds of questionnaires that would be used, namely validation questionnaire and students' response questionnaire.

Table 1. Score Conversion to Five-Scale

Score	Interval Score	Range	Category
5	$X > \bar{X}_i + 1.8 S_{bi}$	4.21 – 5.00	Strongly Feasible
4	$X + 0.6 S_{bi} < \bar{X} \leq X_i + 1.8$	3.41 – 4.20	Feasible
3	$X_i - 0.6 S_{bi} < \bar{X} \leq X_i + 0.6$	2.61 – 3.40	Enough
2	$X_i - 1.8 S_{bi} < \bar{X} \leq X_i - 0.6$	1.81 – 2.60	Unfeasible
1	$\bar{X} \leq X_i - S_{bi}$	0 – 1.80	Strongly Unfeasible

Source : Sukardjo (2005: 53)

Qualitative data in the form of suggestion and feedback were given by the lecturers as a media expert and material expert, teacher as an accounting subject practitioner and the students were analyzed with qualitative descriptive analysis. Quantitative descriptive

analysis was used to process the data obtained through questionnaires in the form of a score. The steps were changing the qualitative assessment to be a quantitative, calculating average score for each indicator, the average of the results obtained in the form of quantitative data is converted back into a qualitative data regarding the feasibility of the media based on ideal conversion guidelines (See Table 1).

Beside that, Calculating the average gain score toward students of class X AK 3 after using media with formula:

$$\langle \text{gain} \rangle = \frac{\text{post test score} - \text{pre test}}{\text{maximum score} - \text{pre test}} \quad (\text{Meltzer, 2002: 1260})$$

Determine the criteria for the acquisition of gain score can be seen in Table 2.

Table 2. Category of Earnings Gain Score

Range	Category
$g \geq 0,7$	High
$0,3 \leq g < 0,7$	Moderate
$g < 0,3$	Low

## RESEACH RESULT AND DISCUSSION

### *The Development of Accounting Uno Card Game*

#### 1. Analysis Stage

At this stage of the analysis, there were several stages that was done to find out the information used as the basis for the development of Accounting Uno Card Game learning media. The activities consisted of determine the purpose of the product development, analysis of the core competence and basic competence that contains in the learning media, and analyze the indicator of basic competence that will be included in learning media.

#### 2. Design Stage

At the design stage, the activities were preparation of adjustment entries material, making product's design that consisted of walk cards, special cards, material cards, question cards, answer cards, point note, game instruction, and box of Accounting Uno Card. The last activities was arrange the assessment instruments of learning media.

#### 3. Development Stage

At this stage consisted of several activities including: (1) product making, (2) validation stage I by material expert and media expert, (3) revision stage I from material expert and media expert related to material aspect and communication visual aspect, (4) validation stage II by accounting teacher.

#### 4. Implementation Stage

At this stage, the activities were: (1) small group tryout on 8 students of class X AK 2 SMK Negeri 7 Yogyakarta, (2) revision stage II based on suggestion from students in small group tryout related to answer card number 8, and (3) field tryout on 31 students of Class X AK 3 SMK Negeri 7 Yogyakarta. The students were divided into four groups.

Table 3. Data of Field Tryout Result

Group	Game Duration	Oportunity to Answere The Question	Material Card Read	Total Point
1	42 minutes	All players answer question	All cards read	125
2	45 minutes	All players answer question	2 Unread cards	107
3	40 minutes	All players answer question	All cards read	100
4	43 minutes	All players answer question	1 Unread card	103

### 5. Evaluation Stage

The last stage in the development of Accounting Uno Card Game is the evaluation stage. This stage measured the achievement of product development.

### *The Feasibility of Accounting Uno Card Game*

#### 1. Material expert

Validation of material expert was conducted by Mrs. Adeng Pustikaningsih, M.Si (Lecturer of Accounting Education). Validation was done related to the feasibility of material aspect, language aspect, and learning aspect of Accounting Uno Card Game. The validation results of material expert in summary can be seen in the following table:

Table 4. Recapitulation of Validation Result by Material Expert

No.	Aspect	Score
1.	Material Aspect	4.75
2.	Language Aspect	5.00
3.	Learning Aspect	5.00
<b>Average Score</b>		<b>4.92</b>
<b>Category</b>		<b>Strongly Feasible</b>

In table 4, it is known that the validation result of the material expert as a whole obtained the average score of 4.92. Based on table 1 of score conversion into a five-scale score, the validation result of the material expert is in the range of  $4.21 X \leq 5.00$  in the category of "**Strongly Feasible**". Therefore, Accounting Uno Card Game deserves to be tested according to the comments and suggestions from the material expert and can be used as a learning media viewed from material aspect, language aspect, and learning aspect.

#### 2. Media Expert

Validation by media expert was conducted by Mr. Rizqi Ilyasa Aghni, M.Pd (Lecturer of Accounting Education). Validation was done related to the feasibility of media engineering aspect and visual communication aspect of Accounting Uno Card Game.

Table 5. Recapitulation of Validation Result by Media Expert

No.	Aspect	Score
1.	Media Engineering Aspect	4.46
2.	Visual Communication Aspect	4.29
<b>Average Score</b>		<b>4.38</b>
<b>Category</b>		<b>Strongly Feasible</b>

The result of validation by media expert as a whole presented in table 5 obtained the average score of 4.38. Based on table 1 of score conversion into the five scale scores, the validation result by media expert is in the range of  $4.21 X \leq 5.00$  in the category of "**Strongly Feasible**". In conclusion, Accounting Uno Card Game deserve to be tested according to suggestion from media expert and can be used as a learning media viewed from media engineering aspect and visual communication aspect.

### 3. Accounting Teacher

Validation by accounting teacher conducted by Mrs. Lembah Srigati, S.Pd. Validation conducted by accounting teacher related to material aspect, language aspect, learning aspect, and visual communication aspect.

Table 6. Recapitulation of Validation Result by Accounting Teacher

No.	Aspect	Score
1.	Material Aspect	4.00
2.	Language Aspect	4.00
3.	Learning Aspect	4.60
4.	Visual Communication Aspect	4.44
<b>Average Score</b>		<b>4.26</b>
<b>Category</b>		<b>Strongly Feasible</b>

Based on the assessment from accounting teacher, it is known that Accounting Uno Card Game got the average score of 4.26. In accordance with table 1 on score conversion into a five-scale, the validation result by expert is located in the range of  $4.21 X \leq 5.20$  in the category of "**Strongly Feasible**". In conclusion, Accounting Uno Card Game Media deserves to be tested and can be used as a learning media in terms of media engineering aspect and visual communication aspect.

### *Students' Response of Accounting Uno Card Game*

#### 1. Small Group Tryout

Small group tryout was conducted in Class X AK 2. At the end of small group tryout, the researcher distributed a students' response questionnaire to find out the opinions of

students about learning media that have been developed viewed from material aspect, learning aspect, language aspect, and visual communication aspect. Here are the results of student responses in small group tryout:

Table 7. Recapitulation of Students' Response Result in Small Group Tryout

No.	Aspect	Total Score	Average Score
1	Material Aspect	93	3.88
2	Language Aspect	93	3.88
3	Learning Aspect	174	4.35
4	Visual Communication Aspect	341	4.74
<b>Average</b>			<b>4.21</b>

The result of students' responses indicate that the learning media in the form of Accounting Uno Card Game considered feasible to be tested with the average score of 4.21 which is located in the range of  $X \geq 4.20$  in the category of Strongly Feasible.

## 2. Field Tryout

Field tryout was conducted in Class X AK 3. Based on the result of questionnaires on field tryout obtained the following recapitulation:

Table 8. Recapitulation of Students' Response Result in Field Tryout

No.	Aspect	Total Score	Average Score
1	Material Aspect	385	4.27
2	Language Aspect	359	3.86
3	Learning Aspect	627	4.05
4	Visual Communication Aspect	1193	4.28
<b>Average Score</b>			<b>4.10</b>

Learning media in the form of Accounting Uno Card Game viewed from the material aspect, language aspect, learning aspect, and visual communication aspect of the students when the field tryout obtained the overall average (X) that is 4.10 that located in the range of  $3.41 X \leq 4.20$  with feasible category. In conclusion, Accounting Uno Card Game include in "**Feasible**" category.

Table 9. Data of Pre-test and Post-test of Class X AK 3

Data	Pre-test	Post-test
The Number of Students	31	31
Average Score's Class	8.87	9.52
High Score	10	10
Low Score	5	7.5
Ideal Score	10	10

### ***The Increase of Pre-test ad Post-test after Students Using Accounting Uno Card Game***

Here are the results of pre-test and post-test in Class X AK 3 which is used as data to calculate gain score (see Table 9). In order to know the average of an increase of pre-test and post-test result in Class X AK 3, then analyzed the data using gain score. The calculation of the average gain score of Class X AK 3 as follows:

$$\begin{aligned} < g > &= \frac{9.52 - 8.87}{10 - 8.87} \\ &= \frac{0.65}{1.13} &= 0.575 \text{ or } 57.5\% \end{aligned}$$

Based on the calculation result obtained an increase in the average score of pre-test and post-test in class X AK 3 after using the Accounting Uno Card Game learning media with gain score obtained was 0.575 or 57.50% that is located in the range  $0.3 \leq g < 0.7$  and belongs to "**Moderate**" category.

## **CONCLUSION AND SUGGESTION**

### ***Conclusion***

Based on the results of the development research and discussion, it can be concluded that:

1. The development of Accounting Uno Card Game learning media through five stages based on the ADDIE model, i.e. analysis stage, design stage, development stage, implementation stage, evaluation stage.
2. The feasibility assessment by material experts obtained an average score of 4.92 which is include in "Strongly Feasible" category. The feasibility assessment by media experts obtained an average score of 4.38 which is include in "Strongly Feasible" category. The feasibility assessment by accounting teacher obtained an average score of 4.26 which is include in "Strongly Feasible" category.
3. Students' response of Class X AK 2 and X AK 3 with the implementation of Accounting Uno Card Game on small group tryout is 4.21 which is include in "Strongly Feasible" category while for field tryout is 4.10 which is included in "Feasible" category.
4. Accounting Uno Card Game learning media can improve the proficiency students in learning with an increase in the result of pre-test and post-test that can be seen from overall average i.e 57.5% which is included in "Moderate" category.

### ***Suggestion***

Some suggestions for further product development are as follows:

1. School is expected to help improve knowledge of educators through sustainable training of learning media development so that educators can develop more varied learning media.



2. Teachers are expected to develop a varied accounting learning media and can engaging students thoroughly so that it is expected to improve students' understanding and student learning motivation can be improved.
3. Teacher should not only use one type of learning media so that students do not feel bored during accounting learning process.
4. A further development research is necessary to be done so that the material contained in Accounting Uno Card Game learning media not only limited in adjustment entries and also the questions should be added to support student learning.

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