

# THE COMPANY" BOARD GAME AS A LEARNING MEDIA TO IMPROVE STUDENTS' LEARNING MOTIVATION

## BOARD GAME "THE COMPANY" SEBAGAI MEDIA PEMBELAJARAN UNTUK MENINGKATKAN MOTIVASI BELAJAR SISWA

By: **In'am Fairuz Aiman**

Accounting Education Study Program Yogyakarta State University  
fairuzaa13@gmail.com

**Dhyah Setyorini**

Lecturer of Accounting Education Department Yogyakarta State University

### Abstract

This study aims to develop "The Company" board game as a learning media of Basic Accounting, assess the feasibility of the media, and know the impact of its use on students' learning motivation. Media development used ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). Validation of product feasibility was done by material expert, media expert, accounting learning practitioner, and students. The researcher conducted the media pilot test on 32 students of class X AKKL 2 SMK Negeri 1 Yogyakarta. Data from observation, interview, documentation, and questionnaire were analyzed by qualitative and quantitative descriptive techniques. The results showed that the final product of "The Company" board game is feasible to use. The assessment of media feasibility obtained score of 3,94 (Feasible) from the material expert, 4,54 (Very Feasible) from the media expert, 4,82 (Very Feasible) from the accounting learning practitioner, 4,34 (Very Feasible) from the students of field trial, and 4,57 (Very Feasible) from the students of product implementation test. Moreover, the use of this media increased students' learning motivation by 4.85%, with  $t_{count}$  15.774 and sig. 0.000 indicating that the increase is significant. It means that this learning media can improve students' learning motivation. The implication is this learning media can be used to support learning activities of Basic Accounting, both in class and independently.

**Keywords:** Basic Accounting, Board Game, Learning Media, Learning Motivation

### Abstrak

Penelitian ini bertujuan untuk mengembangkan board game "The Company" sebagai media pembelajaran Akuntansi Dasar, menilai kelayakan produk, dan mengetahui dampak penggunaannya pada motivasi belajar siswa. Pengembangan media menggunakan model ADDIE (Analysis, Design, Development, Implementation, and Evaluation). Validasi kelayakan produk dilakukan oleh ahli materi, ahli media, dan praktisi pembelajaran akuntansi, dan siswa. Uji coba untuk mengukur dampak penggunaan media dilakukan terhadap 32 siswa kelas X AKKL 2 SMK Negeri 1 Yogyakarta. Data hasil observasi, wawancara, dokumentasi, dan angket dianalisis secara deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa produk akhir board game "The Company" layak digunakan. Penilaian kelayakan produk menghasilkan skor dari ahli materi sebesar 3,94 (Layak), dari ahli media sebesar 4,54 (Sangat Layak), dari praktisi pembelajaran sebesar 4,82 (Sangat Layak), siswa pada uji coba lapangan sebesar 4,34 (Sangat Layak), dan siswa pada uji implementasi produk sebesar 4,57 (Sangat Layak). Selain itu, penggunaan media ini meningkatkan motivasi belajar siswa sebesar 4,85%, dengan  $t_{hitung}$  15,774 dan sig. 0,000 yang menunjukkan bahwa peningkatan tersebut signifikan. Artinya, pengembangan board game "The Company" dapat meningkatkan motivasi belajar siswa. Implikasinya, media pembelajaran ini dapat digunakan untuk menunjang kegiatan pembelajaran Akuntansi Dasar, baik di kelas maupun secara mandiri.

**Kata kunci:** Akuntansi Dasar, Board Game, Media Pembelajaran, Motivasi Belajar

## INTRODUCTION

Learning is an effort of the teachers to create conditions that allow students to experience the learning process. To make it useful and successful, the teachers should understand and appreciate students' needs, backgrounds, interests, and learning styles (Roberts, Newman, & Schwartzstein, 2012: 274). The understanding of the students characteristics needed to improve the learning performance. The students' learning motivation also influences the effectiveness of learning. Learning motivation becomes the overall psychological driving force within the students that raises learning activities, which ensures the continuity and gives the direction of learning activities to achieve a goal (Winkel, 2009:169). Learning motivation emerge from within and outside (intrinsic and extrinsic). There are many factors that influence students' learning motivation, so the teachers need to consider what factors are most likely to trigger students' learning motivation during the learning process.

Observations on the students of class X AKKL 2 SMK Negeri 1 Yogyakarta academic year 2017/2018 showed some characteristics that could be an essential point in designing the learning strategies for this class. First, the students were less enthusiastic to follow the

conventional learning. They were less attentive, passive, and complain when the teacher gave a task. It showed that they lack motivation to learn. On the other hand, they tended to be enthusiastic when confronted with competition especially regarding the score. They were also very excited when the learning was done with the game. This characteristic must be considered by the teachers to design the learning strategies which are interesting and fun for them so the learning occurs with more excited and motivated, for example by using the game as a learning media.

The game is an activity that has goals, rules, feedback systems, and voluntary participation (McGonigal, in Chan, Ting, & Ng, 2011:294). It is useful in learning because it can reinforce basic concepts through practical application and increase students' involvement (Shah, 2017:27). The students actively acquire, build, forge, and reconstruct knowledge in an interesting way, and also enable them to gain optimal experience through its various mechanisms and dynamics. The implications are it supporting the learning process and increasing the students' motivation and involvement in the classroom because the whole of the learning process are experiential.

Based on the Curriculum 2013 (Revision 2017), one of the subjects that

must be taken by students of class X AKKL is Basic Accounting. This subject is the Basic Skills Program (C2) that consists of 11 (eleven) basic competencies. This subject is very important to be mastered by the students because it becomes the basis for the next accounting material. However, there is a difficulty to learn it. Through interviews with a teacher of Basic Accounting subject in SMK Negeri 1 Yogyakarta, Dra. A.W. Widowati, the researcher know that the most difficult material of Basic Accounting subject is the adjusting journal entries. This material has been an obstacle for the accounting teachers for many years. The interviews with some students of class XI AK who have obtained this material indicated that the difficulties in understanding the adjusting journal entries are determining the affected accounts, account positions (debits or credits), and nominal that must be recorded. These difficulties arose because they did not understand the cause of the adjusting journal entries or the chronology of adjustment transactions.

Based on these problem backgrounds, the researcher can identify the problems of Basic Accounting learning in SMK Negeri 1 Yogyakarta, that are the lack of students’ learning motivation in class X AKKL 2 to follow the conventional learning and the difficulty to study the adjusting journal entries material.

Adjusting journal entries material will be more difficult to understand if students are less motivated to learn because students will easily give up to master this material. Responding to the problem, the researcher has an idea to develop “The Company” board game as a learning media of Basic Accounting to improve students’ learning motivation of class X AKKL 2 SMK Negeri 1 Yogyakarta academic year 2017/2018, especially on adjusting journal entries. “The Company” board game is a learning media in the form of simulation-based game that illustrate the accounting cycle in the service company. This game is designed to be played by 2-6 players. The main purpose of its usage is to help students understand the concept and the recording of adjusting journal entries in Basic Accounting subject.

The selection of “The Company” board game as a learning media is based on the consideration that the using of the board game can enhance the interest and understanding of complex and abstract scientific concepts (Chiarello & Castellano, 2016). The board game can provide a practical, engaging, creative and innovative learning experience (Ogershok & Cottrell, 2004). It can also simulate complex theories and concepts in dynamic, fun, and educational ways (Bridge, 2014) and improve the learning efficiency and interest (Chang, Wang, & Chiu, 2010).

Other than that, based on the researcher's experience when taught the students of class X AKKL 2 SMK Negeri 1 Yogyakarta, the using of game and simulation methods made the students more enthusiastic to follow the learning and could focus their attention on the material delivered than the conventional learning. They also became more active to ask to solve the problems they face. It is an early indication that the development of "The Company" board game may be an appropriate learning media for students in class X AKKL 2 to improve their learning motivation.

Therefore, this research aimed to know: 1) the results of the development stages of "The Company" board game as a learning media of Basic Accounting; 2) the feasibility of "The Company" board game based on the assessment of the material expert, media expert, accounting learning practitioner, and students; and 3) the difference of students' learning motivation in class X AKKL 2 SMK Negeri 1 Yogyakarta academic year 2017/2018 before and after the using of "The Company" board game as a learning media of Basic Accounting. The learning motivation is measured from the students' liveliness in learning, persistence, attention, participation, students' interest or inclination toward something, and achievement desire (Joomla, 2009:6).

The benefits of this research include the theoretical benefits and the practical benefits. The theoretical benefits of this research are providing theoretical contributions in the form of knowledge about the learning media development and becoming a reference for the next similar researches. The practical benefit of this research is producing "The Company" board game as a learning media of Basic Accounting that can be used by teachers as a learning tool in the classroom or used by students to study accounting independently.

## **RESEARCH METHODS**

### **Type of Research**

This research is the research and development type, that is the research method used to create certain product and test the effectiveness of the product (Sugiyono, 2015b:407). The research and development model used is the ADDIE model developed by Dick & Carry (in Mulyatiningsih, 2013:200). This development model consists of 5 (five) stages, namely Analysis, Design, Development, Implementation, and Evaluation.

### **Product Trial Design**

#### **1. Time and Place of Trial**

The media pilot testing was conducted in February 2018 at SMK Negeri 1 Yogyakarta.

2. Trial Subjects

The trial subjects were students of SMK Negeri 1 Yogyakarta in academic year 2017/2018 as many as 32 (thirty two) students of class X AKKL 1 for the field trial and 32 (thirty two) students of class X AKKL 2 for the product implementation test.

3. Trial Design

The media pilot testing was conducted 2 (two) times, namely field trial and product implementation test. In the field trial, students used the developed product, then assessed the product feasibility by filling out the media assessment questionnaires. In the product implementation test, students used the developed product in real learning situation in the classroom by following the learning plot. The product implementation test aims to assess the feasibility of the final product and the impact of product usage on students' learning motivation of Basic Accounting subject.

a. Qualitative data in the form of: 1) the results of observation, interviews, and documentation used in the analysis phase to determine the problem in Basic Accounting learning; and 2) suggestions, comments, and inputs from the material expert, media expert, accounting learning practitioner, and students about the developed learning media. Qualitative data were collected through observation, interviews, documentation, and questionnaires.

b. Quantitative data in the form of: 1) the feasibility assessment results of the learning media from the material expert, media expert, accounting learning practitioner, and students; and 2) the measurement result of students' learning motivation before and after the using of learning media which translated in the numerical form. Quantitative data were collected through questionnaires.

**Data, Instrument, and Data Analysis Techniques**

1. Data

The data used in this research consists of 2 (two) types of data, that are:

2. Data Analysis Techniques

Qualitative data were analyzed descriptively to find out the problems in Basic Accounting learning and the product development revision. Quantitative data in the form of the feasibility assessments of the learning

media were analyzed by calculating the average score of the learning media feasibility and converting it to find out the feasibility categories based on the guidelines on Table 1.

Table 1. Conversion Guidelines of Assessment Score with Five Categories

Score Interval	Value	Category
$X \geq 4,21$	A	Strongly Feasible
$3,41 \leq X \leq 4,20$	B	Feasible
$2,61 \leq X \leq 3,40$	C	Enough
$1,81 \leq X \leq 2,60$	D	Unfeasible
$X \leq 1,80$	E	Strongly Unfeasible

Source: Widoyoko (2009:238) with modification

The measurement results of students' learning motivation were analyzed by calculating the percentage of students' learning motivation score for every aspect and measuring the significance level of the difference in average score of students' learning motivation before and after the using of the learning media with paired sample t-test.

## RESULTS AND DISCUSSION

### Results of Product Development

#### 1. Analysis Stage

At this stage, the researcher performed need analysis, analysis of the students characteristics, and analysis of the learning materials based on data obtained from obser-

vation, interview, and documentation. Based on the result of need analysis, the researcher knows that one of the subjects that must be mastered by the students of grade X AKKL is Basic Accounting, with the most difficult material is adjusting journal entries. The researcher also found that the teacher tended to explain the material conventionally during the learning so the students were easily bored and less motivated to learn. Based on the analysis of the students characteristics, the researcher knows that the students in class X AKKL 2 were less motivated to learn and easily bored if the learning was done conventionally, but they were very passionate when faced with the competition or if the learning was done with the game. They can memorize the knowledge material easily, but still need a lot of practice to master the skills material. Furthermore, based on the analysis of the learning materials, the researcher identified that adjusting journal entries material consist of adjustments for anticipated (accruals) and transitory (deferrals) transactions so that the data contained in the trial balance can describe the actual financial condition of the company.

## 2. Design Stage

At this stage, the researcher created the product design, designed the game rules and the learning plot, and designed the product assessment instruments. The result is a learning media design that will be developed named “The Company” board game for Basic Accounting subject, especially for adjusting journal entries. The component of “The Company” board game consists of the game board, pawns, dice, playing money, bank debt proof, deck of cards, cards, game instructions, answer keys, and recording sheets. The instruments used to assess the product consist of questionnaires of product feasibility assessment and students’ learning motivation questionnaire.

## 3. Development Stage

At this stage, the researcher created the product prototype, validated the product to the experts, and revised the product according to the validation results. The 1<sup>st</sup> stage of product validation was performed by the material expert and the media expert, who advised for the 1<sup>st</sup> revision of the product. After the 1<sup>st</sup> revision, the product was validated by the accounting learning practitioner in the 2<sup>nd</sup> validation stage. The 2<sup>nd</sup>

validation result was used for the 2<sup>nd</sup> revision of the product. After that, the product was ready to be implemented.

## 4. Implementation Stage

At this stage, the researcher conducted the media pilot testing to the students of class X AKKL 1 and X AKKL 2 at SMK Negeri 1 Yogyakarta. The pilot testing was done in 2 (two) stages, that is the field trial in class X AKKL 1 and the product implementation test in class X AKKL 2. The result of the field trial is the score of product feasibility according to students’ perspective as the user and suggestions/comments to use in the 3<sup>rd</sup> revision of the product. The 3<sup>rd</sup> revision result is the final product of “The Company” board game. Then, the researcher performed the product implementation test to assess the feasibility of the final product and measure the impact of the product usage on the students’ learning motivation of class X AKKL 2 who became the main subjects of this research.

## 5. Evaluation Stage

At this stage, the researcher conducted the formative evaluation to assess the feasibility of the developed product and the summative evaluation to measure the improvement of the students’ learning motivation after

using the developed learning media. The formative evaluation was done by analyzing the results of “The Company” board game assessment questionnaires by the material expert, media expert, accounting learning practitioner, and students. The summative evaluation was done by analyzing the results of the student learning motivation questionnaires before and after the using of “The Company” board game.

### Results of Product Feasibility Assessment

The feasibility assessment of “The Company” board game as a learning media of Basic Accounting was done by the material expert, media expert, accounting learning practitioner, and students. Assessment questionnaire of “The Company” board game was developed based on evaluation criteria of print-based media from Department of Education Prince Edward Island (2008) covering content aspect, instructional design aspect, technical design aspect, and social consideration aspect with modification as needed. The results of these assessments are summarized in Table 2.

Table 2. Recapitulation of Learning Media Assessment Results

Rated Aspect	Assessment Results					Average Score	Categori
	1	2	3	4	5		
A	3,88	-	4,38	4,23	4,48	4,24	Strongly Feasible
B	4,00	4,30	4,90	4,36	4,59	4,43	Strongly Feasible
C	-	4,32	5,00	4,44	4,63	4,60	Strongly Feasible
D	-	5,00	5,00	-	-	5,00	Strongly Feasible
Average Score	3,94	4,54	4,82	4,34	4,57	4,44	Strongly Feasible

Explanations:

1 : Material expert

2 : Media expert

3 : Accounting learning practitioner

4 : Students on field trial

5 : Students on product implementation test

A : Content aspect

B : Instructional design aspect

C : Technical design aspect

D : Social considerations aspect

(Primary processed data)

Categorizing average scores on every aspect of media validation using score conversion guidelines in Table 1. Based on the table, the developed learning media received an “A” value and included in the “Strongly Feasible” category for all assessed aspects. Thus, according to the assessment results of the media expert, material expert, accounting learning practitioner, and students, “The Company” board game as a learning media of Basic Accounting is very feasible to use in terms of content aspect, instructional design aspect, technical design aspect, and social consideration aspect.



**Results of Measurement of Students' Learning Motivation**

Table 3. Recapitulation of Students' Learning Motivation

Measured Aspects	Before		After		Improvement (%)
	Total	%	Total	%	
Liveliness	489	76,41	524	81,88	5,47
Persistence	618	80,47	662	86,20	5,73
Attention	423	82,62	442	86,33	3,71
Participation	164	64,06	180	70,31	6,25
Interest	681	76,00	739	82,48	6,47
Achievement	474	92,58	476	92,97	0,39
Total	2849	79,49	3023	84,35	4,85

Source: Primary processed data

Table 4. Recapitulation of Paired Sample T-Test Results

	Mean		Correlation	t	Sig. (2-tailed)
	After	Before			
Pair 1	16,38	15,28	,725	4,496	,000
Pair 2	20,69	19,31	,844	7,716	,000
Pair 3	13,81	13,22	,658	3,320	,002
Pair 4	5,63	5,13	,679	4,209	,000
Pair 5	14,88	14,81	,684	6,125	,000
Pair 6	14,88	14,81	,525	,360	,721
Pair 7	94,47	89,03	,958	15,774	,000

Explanations:

Pair 1 : Liveliness aspect

Pair 2 : Persistence aspect

Pair 3 : Attention aspect

Pair 4 : Participation aspect

Pair 5 : Interest aspect

Pair 6 : Achievement aspect

Pair 7 : Total learning motivation

(Primary processed data)

The impact of the using of "The Company" board game as a learning media of Basic Accounting on students' learning motivation was known through one-group pre-test and post-test experimental design. In the product implementation test,

students filled out the motivation questionnaire before and after using the learning media, then the results of these two questionnaires were compared to determine the impact of learning media usage on students' learning motivation. Students' learning motivation was measured based on the liveness aspect, persistence aspect, attention aspect, participation aspect, interest aspect, and achievement aspect. The questionnaire used to measure students' learning motivation consist of 28 items of valid statements with details of 23 positive statements and 5 negative statements. Reliability test on this questionnaire obtained Cronbach's Alpha value of 0,889 with instrument reliability criteria  $\geq 0,600$ , so it is declared as reliable.

Based on Table 3, it appears that there is an increase in students' learning motivation percentage after the using of "The Company" board game. The highest percentage increase occurred on the interest aspect, while the lowest increase occurred on the achievement aspect. The percentage of total learning motivation for all measured aspects increased by 4,85%.

The different test results using paired sample t-test in Table 4 show that there are differences of students' learning motivation score before and after the using of "The Company" board game on liveliness aspect, persistence aspect, attention aspect, participation aspect, and interest aspect, but there is no difference of

students' learning motivation score on achievement aspect. It means that the using of "The Company" board game as a learning media of Basic Accounting can improve students' learning motivation on liveliness aspect, persistence aspect, attention aspect, participation aspect, and interest aspect, but cannot improve students' learning motivation on achievement aspect. The increase in the liveliness aspect occurred because this learning media usage required students to master the material to win the game so they became more active to find out about the material. The improvement on the persistence aspect happened because this game gave students the problems to be solved to finish the game so they felt more challenged to master the learning material. The enhancement of the attention aspect occurred because this media has the attention function that required students to concentrate on the game and thus paid attention to the questions about the learning material or the transactions that must be done to win the game. The improvement on the participation aspect happened because this game required students to be actively involved in its usage in the learning process. The increase in the interest aspect occurred due to the playful nature of the game and its design that matched with the students characteristics so it enable learning to suit

their interests. However, the achievement aspect did not increase because it had reached a very high level (92.58%) and the learning using this game did not enable the direct assessment of the learning result so that the students did not feel the competition in the academic achievement.

Furthermore, the result of paired sample t-test for the total motivation score showed that there is difference of students' learning motivation score before and after the using of "The Company" board game. Thus, we can conclude that the using of "The Company" board game as a learning media of Basic Accounting can improve the students' learning motivation. This result was relevant to the researches of Yanete (2016) and Shah (2017) which showed that the using of the learning media on Accounting learning can improve students' learning motivation. Several factors that influence the increase in learning motivation are:

1. This media is a new learning media so students are excited to try it.
2. This media is a game so that its use will lead a fun and attractive learning environment and make the students actively involved in learning.
3. This media has an interesting design that raises students' attention to the material presented.

## **Final Product Review**

“The Company” board game is a learning media developed for Basic Accounting subject, especially on adjusting journal entries material. This is a simulation-based game on financial management of the service company used to provide an overview of the chronology of adjustment transactions. Based on the assessment of the content aspect, instructional design aspect, technical design aspect, and social considerations aspect, “The Company” board game is declared to be very feasible to use. It is also proven to improve students’ learning motivation on Basic Accounting subject.

The strengths of “The Company” board game as a learning media of Basic Accounting are:

1. Flexible to use in the classroom as well as on independent learning.
2. Quite easily reproduced.
3. Has a compact packaging that is easy to move or carry.
4. Can simulate the financial transactions of the service company so it can help the students to understand the accounting cycle of the service company.
5. Allows intense interaction between players to train students’ social skills.
6. Can bring a fun learning atmosphere and enable a learning-by-doing.



Figure 1. Final Product of “The Company” Board Game

However, it also has several limitations. Its limitations are:

1. It takes a long time to play.
2. The recording sheets (journal and ledger) used should be reproduced by players if they want to use this media repeatedly.
3. There is no theoretical material so that students who do not understand the adjusting journal entries may find the difficulty to play this media without mentoring teacher or other students who already understand.

Based on the research results and the strengths and limitations of this learning media, its development as a mass product is potential. This game has various advantages as a learning media that facilitates the students in studying Basic Accounting and can also be used by the general public to recognize accounting. While its limitations can be resolved easily. For example, by using it at leisure time or allocating more learning time such

as in 3-hours lesson. The players can make their own recording sheets and also utilize the internet to find the answers or the transactions recording technique during the game. Furthermore, the production cost of this game is affordable and this game can be used repeatedly. Therefore, “The Company” board game is very possible to be produced and marketed widely to assist the Basic Accounting learning.

## CONCLUSION AND SUGGESTION

### Conclusion

Based on the research results and discussion, the researcher can conclude that:

1. The development of learning media through 5 (five) development stages, namely analysis, design, development, implementation, and evaluation resulted the final product of “The Company” board game which is feasible to use as learning media of Basic Accounting.
2. The feasibility assessment of “The Company” board game obtained score of 3,94 (Feasible) from the material expert; 4,54 (Strongly Feasible) from the media expert; 4,82 (Strongly Feasible) from the accounting learning practitioner; 4,34 (Strongly Feasible) from the students on field trial; and 4,57 (Strongly Feasible) from the students on product implementation

test. Thus, this learning media got an average score of **4,44** which is classified as “**Strongly Feasible**”.

3. The using of “The Company” board game in Basic Accounting learning improved students’ learning motivation by 4,85%. The calculation of paired sample t-test on total motivation score resulted  $t_{count}$  (15,774)  $>$   $t_{table}$  (2,03951) and sig (p) 0,000  $<$  0,05 indicating that the increase is significant. It means that “The Company” board game can improve students’ learning motivation.

### Suggestion

The development of “The Company” board game has several limitations, among others: 1) the material presented only about the accounting cycle for service company; 2) the effectiveness test only done to know the impact of media usage on students’ learning motivation; and 3) the experiment on the effectiveness test only use one-group pre-test and post-test design with limited subjects. Therefore, based on the results and limitations of this research, the researcher gives the following suggestions:

1. The using of this learning media in the classroom should consider the allocation of available time and the grouping of students should be done by jigsaw method so the students’

academic ability is evenly distributed in each group and enabling the clever students to help other students.

2. Further research about this learning media can be done on a wider scope or at different schools to test its effectiveness. The effectiveness test will be better if using true experimental design, especially with pretest-posttest control group design, so the internal validity or the quality of the research design can be higher.
3. The development of this learning media for accounting cycle of trading or manufacturing company can be done by changing/adjusting the transactions, questions, and types of companies managed by players.

## REFERENCES

- Bridge, D. (2014). You Sunk My Constitution: Using a Popular Off-the-Shelf Board Game to Simulate Political Concepts. *Journal of Political Science Education*, 10, 186-203. Accessed on December 25<sup>th</sup>, 2017 from <http://e-resources.perpusnas.go.id/library.php?id=10000&key=board+game>.
- Chan, W., Ting, T.T., & Ng, A. (2011). Playing for Understanding in an Interdisciplinary Area Studies Subject. *International Journal of Arts & Sciences*, 4(8), 291-300. Accessed on December 20<sup>th</sup>, 2017 from <https://e-resources.perpusnas.go.id:2171/docview/908315074?pq-origsite=summon>.
- Chiarello, F., & Castellano, M.G. (2016). Board Games and Board Game Design as Learning Tools for Complex Scientific Concepts: Some Experiences. *International Journal of Game-Based Learning*, 6(2), 1-14. Accessed on December 20<sup>th</sup>, 2017 from <https://e-resources.perpusnas.go.id:2089/gateway/article/151550>.
- Departemen of Education Prince Edward Island. (2008). *Evaluation and Selection of Learning Resources: A Guide*. Accessed on December 31<sup>st</sup>, 2017 from [https://www.princeedwardisland.ca/sites/default/files/publications/eelc\\_learning\\_resources\\_guide.pdf](https://www.princeedwardisland.ca/sites/default/files/publications/eelc_learning_resources_guide.pdf).
- Joomla. (2009). *Strategi Mengembangkan Motivasi Belajar Siswa*. Bandung: PPKG.
- Kemendikbud. (2017). *Surat Keputusan Direktur Jenderal Pendidikan Dasar dan Menengah Nomor 130/D/KEP/KR/2017 tentang Struktur Kurikulum Pendidikan Menengah Kejuruan*.
- Mulyatiningsih, E. (2013). *Metode Penelitian Terapan Bidang Pendidikan*. Bandung: Alfabeta.
- Ogershok, P.R. & Cottrell, S. (2004). The Pediatric Board Game. *Journal of Medical Teacher*, 26, 514-517. Accessed on December 20<sup>th</sup>, 2017
- Chang, W., Wang, T., & Chiu, Y. (2010). Board game supporting Learning Prim's Algorithm and dijkstra's Algorithm. *International Journal of Multimedia Data Engineering and Management*, 1(4), 16-30. Accessed on December 24<sup>th</sup>, 2017 from <https://e-resources.perpusnas.go.id:2089/gateway/article/49147>.

from <http://e-resources.perpusnas.go.id/library.php?id=10000&key=board+game>.

Roberts, D.H., Newman, L.R., & Schwartzstein, R.M. (2012). Twelve tips for facilitating Millennials' learning. *Journal of Medical Teacher*, 34, 274-278. Accessed on December 20<sup>th</sup>, 2017 from <http://e-resources.perpusnas.go.id/library.php?id=10000&key=milenial+generati on+characteristic>.

Shah, K.A. (2017). Game-Based Accounting Learning: The Impact of Games in Learning Introductory Accounting. *International Journal of Information Systems in the Service Sector*, 9 (4), 21-29. Accessed on December 28<sup>th</sup>, 2017 from <https://e-resources.perpusnas.go.id:2089/gateway/article/full-text-pdf/190428>.

Sugiyono. (2015a). *Statistika untuk Penelitian*. Bandung: Alfabeta.

Sugiyono. (2015b). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.

Widoyoko, E.P. (2009). *Evaluasi Program Pembelajaran*. Yogyakarta: Pustaka Pelajar.

Winkel, W.S. (2009). *Psikologi Pengajaran*. Yogyakarta: Media Abadi.

Yanete, F.A. (2016). Developing the Accounting Pocket Book as a Learning Media to Improve the Grade X Accounting Students' Motivation of SMK Muhammadiyah 1 Yogyakarta in the Academic Year of 2015/ 2016. *Undergraduate Thesis*. Universitas Negeri Yogyakarta.