

The Application of Jigsaw Method Mixed with Summarization and Monopoly to Improve Learning In The Introduction to Accounting II Course

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Abstract. The Introduction to Accounting II course, specifically its Fixed Asset material, is considered as the most difficult course by students even as it provides the necessary skills for students to become an intermediary in the world of commerce as one of the topics in the course is in calculating the cost of a fixed asset. The purpose of this study is to help students learn and understand, and in turn acquire the skills to calculate the acquisition cost of a fixed asset. This research is classroom action research conducted in two cycles where each cycle is carried out through four stages: planning, implementation, observation, and reflection. The research subjects are the undergraduate Economics Education students. The data collection is done through observations and interviews. The data analysis is done through the three stages of data reduction, data presentation and reporting. The result of the research shows that learning conducted using Jigsaw method combined with summarization and Monopoly props, can improve students' learning. Through the summarization task, students are encouraged to learn before the material is delivered. With the Monopoly props, they can then learn to easily calculate the asset price.

Keywords: Jigsaw; Monopoly; Fixed assets; Acquisition costs

1 Introduction

The Introduction to Accounting course for Economics Education undergraduates is considered as one of the most difficult subjects by students, especially the Intro to Accounting II. To make matters worse, many of the undergraduates in Economics education do not come from Vocational High School (SMK) in Economics. Students who come from High School (SMU) have never obtained accounting material that can assist them in the Intro to Accounting II. Most of the material in the Intro to Accounting II aims to equip learners to understand and acquire skills in the sale and purchase of accounts receivable, in fixed assets such as land and motor vehicles, in buying and selling securities, and so forth. These skills can also be an exercise for students to learn to be entrepreneurs. Given the importance of these learning materials, it is necessary to find breakthroughs that can help students learn and understand the materials well.

To accomplish this objective, it is necessary to introduce innovations in the learning process by combining the Jigsaw method, summarization, and the use of Monopoly. With these innovations students can absorb the materials better, which in turn will improve their skills and ultimately their learning achievement. Through acquiring these skills, students are expected to

develop interests to be intermediaries in the sale and purchase of motor vehicles and/or other fixed assets.

Summarization is an activity undertaken by learners, to summarize the learning material delivered by course facilitator. The advantage to summarization is plenty, as proposed by Djuhani (2001) through summarization learners will be able to: (1) read well, (2) understand the content completely, (3) discover ideas, (4) arrange the ideas in a way that is easily understood and remembered. The side effect is, as stated by Wormeli (2005), that summarization is one of learning strategies that can provide a huge improvement in the recall of information for a long period of time.

By making a summary, a learner will be able to easily remember the information he/she read, not just for a moment, but for a long time. By making summaries as instructed by their lecturer, the learners are obligated to read the materials that are to be discussed in future classes. This readiness that comes from doing the task of summarization will improve the learners' understanding of the material to be discussed. (Parera 1993) says that summarization is an activity that rewrites what has been read, taking only the important things or taking the points of thought or the essence of the material that has been read, using a language that is easy to understand by the learners themselves.

By summarizing, learners would have studied carefully, not just read, the material. According to (Degeng 1997), summarization is a learning strategy that serves to make a brief statement of the material that is already learned to make it easier to remember. Summarization given as a task can also improve and develop a child's mindset (Slameto: 1991). Through summarization, learners will summarize the material that has been read in a concise and solid form, with language that is more easily understood.

From the description above, the task of summarization can be used to improve the learning outcomes of learners. In summarizing, learners will read carefully the material, in order to draw the essence of the material. Since the learners are making the summaries themselves, the summaries will be in a language that they can easily understand. Summarization therefore trains the learners to think of ways to make their writings be easily understood and remembered for a long time.

The use of money props (Monopoly) will help students understand materials quickly. By using Monopoly props, learners can learn as if they are in real conditions. Learners that learn using these props understand about 80% of the materials compared to only 50% for learners that only observe and listen, 20% for those who only observe, and 30% for those who only listen (Suyanto, 2003). Accounting materials can sometimes bring boredom to the learners especially if the learners have not understood the usefulness of studying the course. Before the learner's experience boredom, the use of Monopoly props is highly recommended (Shanklin 2007).

Furthermore, accounting materials particularly the recording of fixed assets can sometimes bring confusion to the learners. The use of Monopoly props can overcome the confusion in understanding this material. In the research conducted by Mastilak (2012) on the study of material depreciation accounting, income and burden; the use of Monopoly can help students easily understand the material. Monopoly props also make all learners be actively involved in learning (Tanner 1999).

The Jigsaw method is chosen for this course, because the Jigsaw method is able to make all learners actively follow and participate in the learning process. Each learner has a duty to deliver the material that become his/her responsibilities, thus encouraging him/her to think critically. Independence in this case is also necessary. Besides that, with Jigsaw learners are trained to work together in small groups (expert groups) in discussing the materials that are being assigned

to them. The Jigsaw method provides the freedom for a learner to channel his ideas and his own creativity.

As discussions are done in small groups, the participants can easily understand the material discussed. Each learner is tasked to learn the material that is assigned to them. In addition to teaching him/herself, a learner must also teach the material to other members of his/her group. In addition, Jigsaw method has been shown to motivate students to understand the course material (Lie, Anita 2004, Ibrahim, 2000, Slavin, Khoirul Ahmadi et al, 2011, Rosman, 2008, Suyadi, 2013).

2 Research Methods

This research is conducted to improve the students' learning process in the Intro to Accounting II course, specifically the subject of the Recording of Fixed Assets. The research aims to improve the students' learning achievement as this subject has so far confused students in how they can calculate the acquisition price of fixed assets. The subjects of this research are undergraduate Economics Education program who took the Intro to Accounting II course.

The research is done in two cycles in which each cycle consists of four stages, namely planning, implementation, observation and reflection. Before entering the cycles, preliminary planning is first conducted, which includes discussions between the researcher, the course facilitator, and observers who discuss among others: (1) the materials, the methods, the timing of the research (2) the observations that are to be conducted (3) the reflection.

The discussions about the materials and the methods to be used are conducted between the researcher and the classroom facilitator, as this concerns the materials and the schedules that are to be adjusted. After the discussions about the materials and the schedules, the methods are chosen in accordance with the materials that are to be taught. For observations, the discussion involves the researcher and the observers that consist of three other classroom facilitators. In this discussion, they reach an agreement about what will be the focus of the observation and what criteria are to indicate learning success.

During this discussion, an understanding and trust between the researcher and the observers are to be established. For reflection activities, they are agreed upon immediately after learning is completed, using the material from the completed observation sheets (I.G.A.K Wardani, 2007). After this preliminary planning, the study enters the first stage of the cycle which is planning. The Learning Implementation Plan (RPP) is made, by preparing the necessary facilities and infrastructure.

Then, stage two (implementation) is executed, followed by the observation and reflection. Aside from the observation sheets, data collection is also conducted through interviews and tests. The interviews were conducted to obtain data on whether learning with Jigsaw method mixed with summarization and Monopoly is fun for the students; while the tests are conducted to measure the success of this innovative learning, whether it can improve the students' learning outcomes. Data analysis is done by (1) data reduction and (2) data analysis, (3) presentation of data analysis and interpretation of the analysis result. (I.G.A.K Wardani, 2007).

3 Results and Discussion

The result of the first cycle has not indicated the achievement of the research objective, which is to improve the students' learning outcomes. The outcome obtained is still less than the

predefined criteria, which is that 80% of the students received 75 points in the tests and above. In the first cycle only 9% of the students get 75 points and above.

This happens as students are still having trouble in calculating the acquisition price of fixed assets even though they have been assisted by Monopoly props. Discussions have not run smoothly as the understanding of the materials among group members varies: some students understand the material well while some others have very poor understanding which impact their delivery of the material to the group i.e., when a group member has a poor understanding of the material assigned to him/her, his/her delivery of the material will not be easily understood by other members of the group, and this happens almost on all the materials of the fixed assets subject. This in turn impacts their ability to do the test – most could not complete the test when the time is up.

This result is in accordance with the opinion of Ibrahim that the Jigsaw method takes a long time to conduct. Furthermore, learners who have a poor understanding of the material will feel inferior and less focused in the group discussion. On the other hand, the results of the summarization task showed the lack of seriousness in some learners who merely summarize for the sake of summarizing and without understanding. This further impacts the group discussion, reducing their active participation in the discussion.

In accordance with the opinion of Slameto (2001), which stated that the task of summarization will improve and develop mindsets; when this task is done carelessly, it will not improve the mindset and will in turn affect the learning outcomes. The learning outcomes of learners in this first cycle can be seen in the following table.

Table 1. Learning Outcomes of Students in the Intro to Accounting II Off P (first cycle)

	Points Interval	Criteria	Number of Students	Percentage of Students
1	85 – 100	A	-	-
2	80 – 84	A-	1	3
3	75 – 79	B+	2	6
4	70 - 74	B	4	13
5	65 - 69	B-	6	19
6	60 - 64	C+	8	25
7	55 - 59	C	7	22
8	40 - 54	D	4	12
9	0 - 39	E	-	-
	Total		32	100

From the table above, we can see that students who scored 75 points and above are only 3 students (or only 9% of the expected 80% target). It is therefore necessary to do a second cycle that improves the planning and execution of the first cycle in accordance with the reflection that has been done in this first cycle.

In the second cycle, in accordance to the results of reflection in the first cycle, students are given the task to improve the summaries that they have done in order to help later in the discussion. Aside from that, weaknesses that were found in the first cycle such as the lack of props usage will be improved so that students are able to use the props properly. In the second cycle, the classroom facilitator divides the students into heterogeneous groups so that fast learners (and vice versa) are distributed and not grouped into one group.

After students are divided into groups, the facilitator assigns topics to be discussed to each student. In the expert group discussion, the “experts” in the group display a lot of improvements.

They are able to convey their ideas without being shy even though their presentations may be less than perfect. Freedom of opinion is really observed in the group of experts. They show their independence and sense of responsibility and ownership to their topics and presentations. This converts to improved performance in tests. In this second cycle, as many as 26 students obtain 75 points and above.

The details of the students' achievements in this second cycle can be seen in the following table. In this second cycle, only 9 students (or 28%) score below 75 (B+ criteria). This is an encouraging result as less than one-third of learners score less than the success criteria.

Table 2. Learning Outcomes of Students in the Intro to Accounting II Off P (second cycle)

	Points Interval	Criteria	Number of Students	Percentage of Students
1	85 - 100	A	8	25
2	80 - 84	A-	10	31
3	75 - 79	B+	8	25
4	70 - 74	B	2	7
5	65 - 69	B-	2	6
6	60 - 64	C+	1	3
7	55 - 59	C	1	3
8	40 - 54	D	-	-
9	0 - 39	E	-	-
	Total		32	100

The table above shows that learning that is conducted by combining summarization task, Jigsaw method, and Monopoly props can improve student learning outcomes. In the second cycle, we have achieved our research objectives in that more than 80% of students score 75 points and above. This is because in this second cycle, students have done their summarization task with full responsibility, which means that they actually summarize by reading carefully and recording the important material in their summaries in a language that is easy for them to understand.

By being responsible in doing their summaries, the students find their own freedom of creativity in finding ideas that they then gather into their summaries of the course material. As the summaries are written in their own language, the students find them to be very easy to understand, grasp, and ultimately the summaries help them achieve success in their learning. This is in accordance with the opinion expressed by (Parera,1993) that summaries rewrite what the learners have read, taking only the things that are necessary. The language used in summaries is in accordance with the ability of each learner, so it is very helpful to understand and grasp.

The function of summaries is to give a brief statement about the content of the learning materials that have been studied and to facilitate learners to remember the material (Degeng, 1997). Summaries are also very useful to prepare learners to receive the course material that will be discussed in future classes. Summaries can make learners feel ready to accept the material that will be taught by the course facilitator. By preparing themselves well, students will find it easy to receive the learning materials, and this motivates them to always make summaries before lectures.

The task of summarization would be very suitable if combined with the cooperative learning that is the Jigsaw method as one of the stages in this method is that each learner has the task to deliver material that he has read and summarized to his friends. When they are ready

with the material, then the task of delivering the material will not feel heavy to the students. They will not feel inferior as they can follow the discussion well and eventually, they will be able to convey the material to their friends. Jigsaw method is known to provide the opportunity for learners to explain to their friends about the material that is assigned to them. This method requires that every student must be able to explain the material assigned to him/her to the other members of the group and not solely for self-interest (Lie, Anita 2004, Ibrahim, 2000, Slavin,).

This method also makes learners cooperate with each other (Lie, Anita 2004, Ibrahim, 2000, Slavin,). Therefore, this method is highly recommended for learning the Introduction to Accounting course, especially the Intro to Accounting II which can provide students with entrepreneurship skills. The improvement in the learning outcomes is also due to the use of appropriate props. The use of visual aids encourages students to participate actively in learning, can eliminate boredom in following the material, which in turn make them able to understand and grasp the learning materials and finally improve their learning outcomes (Tanner 1999, Shanklin 2007, Mastilak 2012).

4 Conclusion

The combination of Jigsaw method, the task of summarization and Monopoly, can improve the learning outcomes of students. In the first cycle, only 9% of students obtain 75 points and above. But in the second cycle as many as 26 students or 82% get a value above 75. We therefore recommend course facilitators to try to integrate various methods to deliver their lecture materials.

References

- [1] Lie, Anita. 2004. Cooperative Learning. Jakarta: Grasindo
- [2] Degeng, I.N.S. 1007. Strategi Pembelajaran Mengorganisasikan Isi dengan Model Elaborasi. Malang: Penerbit IKIP Malang.
- [3] Djuhari 2001. <http://tentangddha.blogspot.com/2011/04/pengertian-rangkuman-ringkasan.html>
- [4] Ibrahim, Muslimin dkk. 2000. Pembelajaran Kooperatif. Surabaya: Universitas Negeri Surabaya.
- [5] KhoirilAhmad dkk. 2011. Strategi Pembelajaran Sekolah Terpadu. Jakarta: Prestasi Pustaka
- [6] Parera, Jos Daniel. 1993. Menulis Tertib dan Sistematis. Jakarta. Erlangga.
- [7] Rusman. 2008. Model Pembelajaran Kooperatif Jigsaw, (online), (<http://belajarpsikologi.com/model-pembelajaran-kooperatif-jigsaw>), diakses 10 Juli 2012.
- [8] Shanklin, S.B., and C.R. Ehlen. Using the Monopoly Board Game as an Efficient Tool in Introductory Financial Accounting Instruction, *Journal of Business Case Studies* (Fall 2007), pp.17-22.
- [9] Slameto. 2001. Proses Belajar Mengajar dalam Sistem Kredit Semester (SKS), Jakarta: Bumi Aksara.
- [10] Slavin, Robert. 1995. Cooperative Learning. Massachusetts: Allyn and Bacon.
- [11] Suyadi. 2013. Strategi pembelajaran pendidikan karakter. Bandung: PT Remaja Rosdakarya
- [12] Suyanto. 2003. Multimedia Alat Untuk Meningkatkan Keunggulan Bersaing. Yogyakarta: Penerbit Andi
- [13] Tanner, M., and Lindquist, T. 1998. Teaching resource using Monopoly and Teams-Games Tournaments in accounting education: a cooperative learning teaching resource. *Accounting Education: an International Journal*. 7:2. 139-162.
- [14] Wardani IGAK dkk. 2007. Penelitian Tindakan Kelas. Jakarta. Universitas Terbuka.
- [15] Wormeli, R. 2005. Meringkas Mata Pelajaran. Terjemahan Linoto, T. 2011. Jakarta. Penerbit Erlangga.