

# **Paper Airplane and Talking Stick Learning Methods To Increase Students Understanding About Management Information System Courses**

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**Abstract:** *The purpose of this study was to improve students' understanding of Management Information System (MIS) course by using paper airplanes and the talking stick methods for students of class H academic year 2015/2016. This study used classroom action research approach. The subjects were students who attended the MIS course Class H Department of Management major trade system in State University of Malang with a total of 28 students consists of 22 female students and 6 male students. The data used in this action research were quantitative and qualitative data. The data used in this study were students and a lecturer in MIS class H. Data collected by using interviews, direct observations, testing, and documentations. The validity of the data used in this study was a triangulation of sources and methods. The validity of the test decided by using content validity. The researcher used comparative descriptive as quantitative data analysis. The researcher used an analysis of the model as qualitative data analysis. Research procedures included the following steps: (1) introduction of the problem, (2) preparation of action, (3) preparation of the action plan, (4) implementation phase of action, (5) observation and interpretation, (6) reflection, (7) preparation report. The results stated that the implementation of learning methods of paper airplanes and the talking stick can improve students' understanding in learning the materials. This is shown by the increasing percentage of comprehending instructional materials, students' understanding in class discussions and group discussions, as well as students in making the correct questions and complete the test from the teacher. In preliminary study the percentage of students meet the minimum of standard value was 28% (11 students) and students do not meet the minimum of standard value stated as 32.14% (9 students) and students do not meet the minimum of standard value stated as 67.86% (19 students). In first cycle, the students' percentage who meet the minimum of standard value increased to 85.71% (24 students) and students who do not meet the minimum of standard value increased to 14, 29% (4 students). In the second cycle the percentage of students who meet the minimum of standard value improved to 96.43% (27 students) and students who do not meet the minimum of standard value improved to 3.57% (1 student). The conclusions of this research is the implementation of paper airplanes and talking stick learning methods improve the understanding of learning MIS course in Class H Faculty of Economics, State University of Malang, Department of Management Major of Trade System.*

**Keywords:** *Paper Airplane, Talking Stick, Understanding, Management Information System*

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## **I. Introduction**

Due to lecturers' lack of skill in managing the class, they are not able to develop learning media effectively. Classroom management skills is a form of skills in creating or conditioning the atmosphere of the classroom into an enjoyable place (conducive) to create the ideal learning process. Students can learn well and receive the lecturing delivered by the lecturers actively, innovatively, creatively, and enjoyably. Thus, arose a feeling of comfort at college or school.

Based on observation results of course lectured on current Management Information Systems (MIS), the learning process is usually done by using presentation method of the group divided based on chapters in handbook. However, nowadays, it is often finding certain student groups who casually do not do their presentation well because they think either they have no sense of responsibility to do presentations or they even completely miss the class. In addition, students' lack of attention during lecture indicates lack of enthusiasm of the students to attend the learning process because the lecturer is not able to arouse students' attention and activeness during teaching and learning process.

Management Information Systems (MIS) is one of courses taught in Commerce Education of Management major in State University of Malang. It needs high perseverance in understanding and applying the material optimally. Minimum of standard value for this course is  $\geq 75$ . Based on the outcomes from Management Control System's quizzes, indicated that from 28 students there were 67.86% or 19 students' outcomes were less than 75 with the lowest was 55 and 32.14% among them or only 9 students whose outcomes were higher than minimum value, whereas a successful teaching learning process can be reached if the standard value of students' outcome is about 80%. This indicates that there are several problems in learning process; for instance, lack of

interest and passion from the students, lack of comprehending the material, and inappropriate teaching method used by the lecturer that can cause students' incapability in solving the quizzes.

To increase students' attention, motivation and activeness in participating during the process of MIS teaching and learning, that requires high understanding, the students are demanded not only to write down and listen to the material recited by the lecturer, but they have to be active in doing the tasks or discussion also. Because of those important parts, the choosing of appropriate methods and media have significant role in increasing the material understanding in MIS course. One of alternative methods and learning medias is cooperative learning by using *paper airplane and talking stick*; that is one way of lecturing by using students' creativity to make the problems and solve them as well as possible. This *paper airplane* method is a developed version of *snowball throwing* method because if the certain paper contained of the problems is just squeezed and thrown, the distance is not really that far, but by using this paper airplane method, it is more enjoyable because this paper airplane will fly longer above the students' heads and the landing is unpredictable. This makes the students more cautious due to the landing is might be on particular random place.

This learning method explores the students' leading potential in group and also students' skill to make and solve the problems combined with imaginative game of forming and throwing snowballs (Komalasari, 2010: 1). The students are expected to participate not only physically but also using their thinking ability. The activeness of the students can be seen by asking question, expressing their opinions or perspectives, even throwing rebuttal. Snowball Throwing leaning method has advantages; it can increase student's awareness of the material and they can share some knowledge they already have (Widodo, 2009: 2)

*Snowball Throwing* is one of cooperative learning methods using wads of papers thrown to other students, contained some problems and then the certain student who gets the snowball has to answer the questions inside the crumbled paper. Moreover, by using this method the students are more active to participate in learning process because they are required to make questions to be answered and solved by other students. The instructions to do this learning method can be done as follows: 1) The lecturer delivers the presented material; 2) The lecturer forms groups and mentions each of group leaders to give the instructions about the material; 3) Each of leaders goes back to their own groups, then explain the material that has been explained by their lecturer to their group members; 4) Each of students takes a piece of paper, and they have to write down one question related to the material; 5) Then the paper contained the written question is squeezed and formed like a ball and thrown from one student to another for about 15 minutes; After one of the student gets the snowball, the lecturer gives him/her a chance to answer the written question in return; 7) Evaluation, 8) Closing (Suprijono, 2010: 128)

Rusman (2014: 202) stated that "cooperative learning is a form of learning in which students learn and work in small groups collaboratively consists of 4 to 6 students with heterogeneous group structure.

One of cooperative learning method used in this research is talking stick learning method. Huda (2013: 224) stated "Talking Stick is one of group leaning method in which using a stick as a helping media. A group that uses the stick first is required to answer the question from the teacher after learning about the core material beforehand."

Shoimin (2014: 198) also stated "Talking stick learning method is included as one of cooperative learning methods. This learning strategy is done by the help of a stick; who takes the stick is required to answer the question from the teacher after studying the main material beforehand." Therefore, talking stick leaning method is cooperative learning method which aims to increase the students' learning outcomes by using a stick as a media to engage question-answer process in learning process.

Talking stick learning method uses a stick as taking-turn tool. Student who gets the stick is given a question and has to be answered. The stick moves to another student as a relay. That continues until the whole students get the stick and turn to answer the question (Widodo, 2009). Syntax from this learning method are (1) Delivering the aim of learning/BC, in this stage the students pay attention to learning purpose stated by the teacher; (2) Forming groups, in this stage the students form a group consists of 4-5 people; (3) Delivering the main material, in this stage the students prepare themselves by studying the main material with teacher's guidance, students are expected to study the material beforehand; (4) Delivering the task, in this stage the students are obliged to close their handbook and each of the groups keeps the attention to the teacher about the given task; (5) Carrying out the talking stick, in this stage the student who gets the talking stick are expected to answer the question given by the teacher and if later on the student in role cannot answer it correctly the other students are allowed to help; (6) Conclusion, in this stage the students, together with the teacher, conclude the learning process; (7) Evaluation, in this stage the students do the evaluation given by the teacher; and (8) Closing; in this stage the students do reflection on leaning process done before. This method has some advantages such as (1) Testing students' awareness, (2) Practising students to understand the material quickly, and (3) Motivating students to study more (study before the actual teaching learning process begins) so that it can increase students' motivation in participating the learning process. Therefore, it is expected this method can also increase students' learning outcomes (Sulistiyani, I. D. A. P., Murda, I. N., & Dibia, K, 2013).

Talking stick learning method is really useful because it can examine students' awareness to train their skill in reading and comprehending the course material quickly, and motivate them to keep their guard in any situation (Huda, 2013 :225).

When this paper airplane and talking stick methods implemented in learning process, the lecturer is better to be more assertive in applying these methods to keep the learning atmosphere more conducive and controlled, because the disadvantage of these methods are the class is expected to be a bit crowded (Ariyanti, R., Santoso, S., & Muchsini, B, 2014).

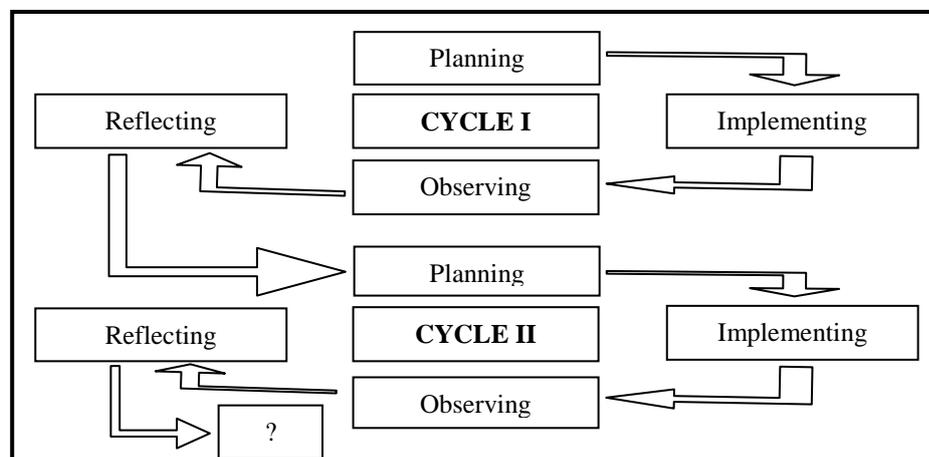
By implementing this talking stick method the students are able to do playing and studying altogether also train them to express their opinions. Beside the method, the media is also needed in increasing their language development. Learning media is a media delivering the messages or information aimed to be instructional or contained the teaching purposes (Arsyad, 2007:4). Nurfauziah (2013) states that "Talking stick technique is really useful to practice talking skill individually, this learning strategy is pretty effective."

Based on the background of study explained above, the problems can be stated as follows: Are Paper Airplane and Talking Stick learning methods able to increase the students' understanding in learning process of Management Information System course?

The purpose of this research is to increase the students' understanding of MIS course using Paper Airplane and Talking Stick methods.

## II. Method

This research is classroom action research. The subjects of this research were students from class G of Commerce Education Majoring in Management, Faculty of Economy in State University of Malang total of 28 students consists of 22 female students and 6 male students. The data uses in this research are quantitative and qualitative. The data resources use in this research were the students and the lecturer of Management Information System. Data collecting technique done by interviewing, direct observation, testing, and documentation. Data validity used in the research are triangulation of resource and method. Test validity used is content validity. Quantitative data analysis using descriptive comparative statistic technique. Qualitative data analysis using analysis between the model. Research procedures can be explained as follows: (1) Introduction of the problem, (2) Preparation, (3) Planning, (4) Implementation, (5) Observation and interpretation, (6) Reflection, (7) Organizing the report. This research is classroom action research done in cycles, each of them consists of (1) Planning, (2) Implementation, (3) Observation, and (4) Reflection. The detail can be seen through the procedures of classroom action research below:



**Figure 3.1** Model of Classroom Action Research (Source: Arikunto, and friends, 2014: 16)

Stage 1 Arranging the action plans (Planning), in this stage the researcher explains about what, why, when, by whom, and how the certain actions done. Stage 2 Implementing the action (Acting), this second stage is implementation or applying the main plan that is doing the action in the classroom. The important things that need to be remembered is that in this second stage the lecturer has to remember and obey the rules formulated in plan, also has to naturally act and not being fake or artificial. Stage 3 Observation (Observing), is an activity to observe done by observer, the observation done when the action is happening. Stage 4 Reflection (Reflecting), is an activity to reflect or recall what have been done. This reflection activity is appropriate to be done when the lecturer is done doing the action, then the lecturer discusses with the researcher about the implementation of the action plan. Four of those stages are the components to form a cycle, that is one round of continuous activities

that back to square one later on. Therefore, the action research is never a single activity, but it always has to a series of activities that can be back to point one and forming a certain cycle.

### **III. Subject**

The subjects for the research were Class G of Commerce Education Majoring in Management, Faculty of Economy in State University of Malang attending Management Information System course with a total of 28 students.

### **IV. Discussion**

The implementation of paper airplane and talking stick methods is a learning strategy applied to increase the material understanding of MIS course for students. The research done in two cycles, cycle I consists of three meetings and cycle II also consists of three meetings. Each of cycle applied in teaching and learning process of MIS course is able to increase students understanding.

When the preliminary is done, the learning method applied by the lecturer is teacher centre, that is the teaching process concerning more to the lecturer and the material delivery is not done continuously, besides, the lecturer does not develop the learning media optimally thus the students do not completely understand about the material given and they even get confused in understanding the course. Based on the students' outcomes of MIS quizzes, students of class H year of 2015/2016 showed that among 28 students there was 67.86% or 19 students that the outcomes were below 75 points with the lowest was 55 points and 32.14% or 9 students were above the standard, whereas a successful learning can be reached when the standard outcomes value is above 80%. In that result there is cognitive level of C2 stated that among 28 students there were still 82.14% or 23 students have cognitive (understanding) level of C2 below the average and only 17.86% or 5 students with cognitive value of C2 reached the standard value.

After the action done in cycle I, it can be known that the learning achievement of MIS students with management controlling system material, students of class H year of 2015/2016 showing its enhancement compared to preliminary result. From 28 students of class H, students have the high comprehension skill of course material is 64.29%, students who understand during group working in class discussion and group discussion is 75%, and students who are able to make questions and solve the problems correctly is 85.71%. Cycle I action done is not certainly show the increasing of material understanding of MIS course optimally. Because of that matter the researcher continues to cycle II for fixing the problem occurred on the previous cycle.

Based on learning process of cycle II, is known that the student's achievement of MIS course indicated an increase compared to the pre-action result and cycle I, students have the high comprehending skill about the course increased to 82.14%, students who understand during group working in class or group discussion increased to 85.71%, and students who are able to make question and solve the problem from the lecturer correctly increased to 96.43%.

Based on the interview done to several students of class H, obtained the certain fact that the implementation of paper airplane and talking stick methods are more enjoyable and make students comprehend better and easier about MIS material because the lecturer gradually step by step and continuously delivering the course; therefore, it can help students to master the course material structurally and level of student understanding can be monitored thoroughly by the lecturer.

That result also supports the research result of Entin T. Agustina (2013) shows there are the increasing outcomes in making wood craft products using manual tools. This can be seen in student increasing outcomes that is 35.49% from students' outcomes in cycle I and increasing students' outcomes of 90.32% in cycles II. This proves that using this Snowball Throwing learning method can increase students' outcomes.

Research done by Friske Fazet and I Gusti Putu Asto (2013) showed that the average result of study in experimental class (TEI 1) was 85 points by deviation standard of 8 and control class (XTEI 3) was 79 points by deviation standard of 7.7 and the counting result of T-test can be counted as  $t_{\text{counted}} > t_{\text{table}}$  that is value  $t_{\text{counted}} = 2.571$  and  $t_{\text{table}}$  in significance level of 5% was 1.67. Based on research result above, it can be concluded that the class used CTL learning method combined with snowball throwing method is not the same as the one used MPL. The research expected that CTL method combined with Snowball Throwing method can be developed and used in teaching learning process by doing comprehension research first; therefore, the implementation can be appropriate with the expectation competence to reach the maximum result.

Talking stick method is learning method using a stick, that is, a learning process designed to measure students' level of material understanding using a stick as a media (Ode, 2010). Talking stick learning method uses a stick as a taking turn tool. The student who gets a certain stick is given a question that has to be answered. Then, the stick is moved from another student as a relay game. That is done continuously up to the whole students have their own turn to get a stick and answer the given question (Widodo, 2009).

Snowball throwing method is a certain method used by the teacher to deepened a particular topic, this method is usually done by a couple of groups consisted of five to eight students who have the skill to make

some questions written in a piece of paper resembled a ball (Yamin, 2007). Then, that ball is thrown to other groups for them to reply by answering the questions thrown on them. Shortly, snowball throwing method can be described by students formulate questions written in a piece of paper about the material taught by the teacher, then the paper is squeezed in a way that formed like a bundle of ball and thrown to other groups. After opening the paper, the certain group who gets the paper is required to answer the written question on the same paper and throws the paper back to the original group that threw the paper before. This snowball throwing method can give the students chance to other students for making question systematically.

Research of Muchammad Nur Yahya, J. A. Pramukantoro (2013) concluded that the learning device by using Talking Stick learning method is good and rating validation result of Syllabus 81%, Worksheet 81.95%, teaching material 79.52% and LP 80.71%. Meanwhile the rating of student questionnaire results to learning process using Talking Stick cooperative learning method is 87.39%. The average result of study in experimental class stated as 80.33 and the average for control class stated as 72.75. Based on that research result it can be concluded that the class implemented the developing learning device using Talking Stick as cooperative learning method significantly has the higher outcomes than the one using conventional teaching and learning method.

Based on the classroom action research conducted by Ariyanti, R., Santoso, S., & Muchsini, B, (2014), the result of research stated that the implementation of talking stick and snowball throwing methods can increase the understanding of accounting material and student achievement. This is proved by the significant increase of students' achievement and outcomes. Students are able to understand the material given by the lecturer, this can be seen by the increasing of students' comprehending skill to course material from 64.29% in cycle I to 82.14% in cycle II, during the teaching learning process the students shows significant rating about 21 students (75%) in cycle I and 24 students (85.71%) in cycle II, and students are able to make questions and solve the problems from the lecturer correctly, this can be showed in increasing students' skill from 85.71% in cycle I to 96.43% in cycle II. This conclusion can give in implication that students to increase students' outcomes optimally in accounting course, the teacher is expected to be able to choose appropriate learning method and media, depends on the students' condition, interest, and available environment. Hence, the implementation of these talking stick and snowball throwing methods can be considered by accounting teacher of XXX high school as one of teaching alternative to increase students understanding in accountant course because it is proved that the implementation of these methods can increase their understanding of the material.

Snowball throwing learning method can increase teacher's activeness in teaching and learning process in Social Sciences (Akhiriyah, D. Y., 2011). This is showed by the increasing activeness of the teacher in every cycles. This can be seen from observation result of teacher's activeness for cycle I is 2.5 while in cycle II increased to 3.0 and in cycle III increased more to 3.4 that considered as very good. And snowball throwing learning method can increase students' activeness in learning Social Sciences. This can be seen from the observation result of students' activeness in cycle I is 3.0, while in cycle II increased to 3.53 and in cycle III increased more to 3.56 that considered as very good.

From several of these research, it can be known that cooperative learning using paper plane and talking stick is successfully implemented in teaching leaning process to achieve goals.

Based on the research done it can be concluded that the formulated hypothesis proven that the increasing understanding of MIS course for material of management control system, students of class H year of 2015/2016 can be done by implementing paper airplane and talking stick methods.

## **V. Conclusionand Suggestion**

Based on the classroom action research done, the result stated that the implementation of paper airplane and talking stick methods can increase students understanding in learning the material about management control system in MIS course. This is proved by significant increase of students'outcomes. Students are able to understand the material given by the lecturer, this is shown by the increase of students' comprehension of course material from 64.29% in cycle I to 82.14% in cycle II, during teaching learning process students showed the increasing rating from 21 students (75%) in cycle I to 24 students in cycle II (85.71%) and students are able to make questions and solve the problems from the lecturer correctly. This can be seen by the increasing skill of students from 85.71% in cycle I to 96.43% in cycle II.

This conclusion implies that to optimally increase students' outcomes in learning MIS course, the lecturer is expected to be able to choose the appropriate learning method and media, based on students' condition, interest, and available environment. Hence, the lecturer can consider the implementation of paper airplane and talking stick learning methods as one of teaching alternative to increase students understanding toward MIS course because it is proven that the implementation of these methods can increase student understanding toward MIS course.

Based on the implication above it can be suggested that: 1) For the lecturer: (a) It is expected that the lecturer can develop students' interest and spirit continuously during teaching and learning process using paper

airplane and talking stick methods so that the students can find and construct their own concept from the given material and the students are suggested to be able to master the material well; (b) To make these method run smoothly, it is better for the lecturer to increase the skill in managing the class so that the conducive class supported learning process can be formed later on; (c) It is expected for the lecturer to be more assertive toward the students during learning process using these methods, because the disadvantages of these methods is the class will be crowded and less-conducive; 2) For students: (a) By implementing these methods, it is better for them to work together in groups for solving the problems and help one another to understand the course better; (b) Students have to be more discipline and be more self-assertive in doing the tasks given by the lecturer; 3) For the institution: (a) The institution should be able to motivate and encourage the lecturers to develop other learning methods and medias to be more innovative, creative, and enjoyable; (b) Institution is expected to be more open up to other educational institutions and institutes to escalate the quality or teaching skill in class.

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