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Enhancing Students' Communication Skills Through Problem Posing and Presentation

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ABSTRACT

This study was to explore how enhance communication skill through problem posing and presentation method. The subjects of this research were the seven grade students Junior High School, including 20 male and 14 female. This research was conducted in two cycles and each cycle consisted of four steps, they were: planning, action, observation, and reflection. This study use interview, observation, and questionnaire to measure most widely used data gathering in communication skill students, and daily test (pre-test and post-test) to measure enhance achievement the students'. The data was analyzed comparing initial and final score. If the final score is better than initial score had been enhanced. Results of this study indicated that teaching and learning science used problem posing and presentation method can enhance ability communication skill, confidence, courage and responsibility on themselves disciples. Researcher is suggestion to use another method to enhance communication skill.

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1. INTRODUCTION

Employers complain about a lack of soft skills among graduates from education institutions [1]. These are caused by soft skill do not include in curricula, but they should be part of any tertiary education so that students are not seriously [2]. Student's fundamental skills have been obtained. It is possible that the lack of student skills poor course design, not inadequate instructional delivery [3] the specific causes the lack of students competence needs to be explored further. Therefore, teachers are required to integrate soft skills in learning thoroughly, effectively and efficiently.

Soft skills are basic fundamental of an important skill in human and students' lives [3], [1], [4] internal auditor [5], manager selection [6] and teachers. Soft skills include communication skills, problem solving skills creativity, critical and structured thinking, teamwork capability, negotiating skills, self-management, imagination, curiosity, determination, passion, or persistence could be added. In order to simple from definition it, [1] separated become three categorize, i.e. personal qualities, interpersonal skills, and additional skills/knowledge. Auditors need to possess communication skill to successes and advancetothe changing complex international global, market place. At the manager selection, leader used communication skill for employees that can rely on in dealing with customers. Educators for promoting students' communication skills by increasing peer interactions, stimulating students' reasoning, and in constructing shared social knowledge [7]. Communication skill can build follow communicative activities like discussion, problem solving [8], model, multimedia, poster and oral presentation [9].

One of the examples above, communication skills very important competencies for twenty first century [7] due to the ability hard and soft skill will be able to resolve of various challenges

complex [10]. Teachers also need effective communication skill to success in teaching and learning every day [11]. Soft skill including communication skill could be integrated through active learning in management classroom [12]. Teacher used teaching strategies such as demonstrations, role plays, giving opportunities to practice oral language and discussion [13], visual communication [14] were effective to improve communication skill students'. In order to improve the communication skill, teachers has to focus on the communication process likes involve effective use of words, forming grammatically intelligible sentences and an appropriate use of voice and intonation while listening and speaking [15].

Student's active learning through discussion, problem solving, problem posing and presentation. Presentation skills are vital to achieving success in all aspects of daily life [16]. Presentation should incorporate these four basic elements: (a) statement ideas clearly, (b) explain ideas, (c) support ideas with evidence from other sources, (d) conclude/restate ideas [17]. Therefore, students need to be trained providing self-reflection regarding their own presentation and giving feedbacks another group oral presentation is crucial to prepare themselves to compete in the competitive environment especially communications skills [18]. Presentation skills can be done using readily accessible technology (such as video hosting services) and proven pedagogy (including peer evaluations and instructional rubrics) to help students develop their professional speaking abilities and presentation skills [19]. A variety of formats exists in which to present: (a) paper presentations, (b) roundtable discussions, (c) poster sessions, (d) panel sessions/symposia, and (e) performances/demonstrations [20]. Presentation ability can enhance practice more and using notecards with highlighted key words [21] to communicate successfully, needed of linguistic levels, verbal skills and body language [22].

Problem posing is method that can make students activate [23]. It also provides an option for students, creativity to foster conceptual understanding, engages students in exploring mathematical ideas, rather than using authoritative [24]. Problem posing activity helps students to develop creativity, motivation and knowledge of mathematics [25]. Students are given an opportunity to experience the mathematical process, ask questions, formulate and test the conjecture and prove the result [26]. Learning by problem posing techniques is practiced in some classrooms, able to analyze and expand strategies that have proved effective [27]. By using problem posing and activities spoken, written, listening actively, read critically, presenting the audio visual aids can improve cooperative learning. Beside that cooperative learning produces interpersonal skill [28]; finally student's communication skill can be increased. Based on the theoretical study presented above, teaching and learning adopt problem posing and presentation method can enhance achievement and communication skill students.

2. RESEARCH METHOD

Classroom action research (CAR) was at improving achievement and communication skill students' through problem posing and presentation method [29] emphasize that teachers are also researchers who reflectively investigate their practice through action research. We changed our course plan as a result of the continuous evaluation of our teaching. In others word it action research is teaching and learning process cyclical in nature involving multiple cycles. Action researches in teaching and learning science become more and more important. It provides a medium for teachers to look at their problem in the classroom in an effort to find practical solutions. Teachers involved in the classroom research that leads to improve teaching set an example for excellence in reflective practice [30].

The subjects of this research were the seven grade students Junior High School, including 20 male and 13 female. This research was conducted in two cycles and each cycle consisted of four steps, they were: planning, action, observation, and reflection. First cycle was conducted in three meetings, and second cycle was conducted in two meetings, so the researcher conducted this research in three weeks. The action research model shows Figure 1. This study use interview, observation, and questionnaire to measure most widely used data gathering in communication skill students, and daily test (initial and final score) to measure enhance achievement the students'. Instruments modified and developed from the literature presented. We use a five-point scale Likert (5-strongly agree, 4-agree, 3-neutral, 2-disagree, 1-strongly disagree) to measure the students' responses. Content validity instrument was evaluated based on the discussion item internal fellow science teachers at the school to ensure text was readable for Junior Height School students, who also as observers.

Before the instrument is used, it has been tested on the 30 respondents to determine their validity and analyzed by Product moment. The instruments are valid, if $r >= r_t$. (N=30, r_t = 0.361, α = 0.05). Reliability was measured according to the Kuder-Richardson formula 21. The result is shown on Table 1 and Table 2.

	Table 1. Validity Questionnaire Item of Presentation												
No. Item	1	2	3	4	5	6	7	8	9	10	11	12	13
r	0.483	0.606	0.588	0.583	0.688	0.398	0.497	0.630	0.458	0.785	0.364	0.837	0.677

Table 2. Validity Questionnaire Item of Problem Posing												
No. Item	1	2	3	4	5	6	7	8	9	10	11	12
r	0.441	0.402	0.659	0.520	0.389	0.413	0.568	0.670	0.508	0.437	0.432	0.654

The initial questionare problem posing and presentation consisted of fifteen questions. After being validated, the questions that were not suitable and correlated to the material were omitted. The questions consist of thirteen for presentation and twelve for problem posing questions. The observation sheet was also done by a collaborator who knew wheather the observation sheet had represented the data that woud be taken. The data got from the observation was validated through triangulation. The data was analyzed comparing initial and final score. If the final score is better than initial score had been enhanced.

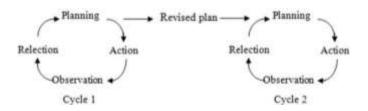


Figure 1. Action Research Prosess

3. RESULTS AND ANALYSIS

Table 1 shows the results of data analysis initial and final score from presentation quesionare. The numbers that emerge at Table 3 and Table 4 is the result of rounding. Rounding is done to make its more simple and easier to understand.

From item number 1 to item number 13 in Table 3 indicate significantly enhancing ability of prensentation. These enhancing shows in the column gap, all items valued positive, it means there are enhance the ability from initial to final conditions. There are three items that enhancing fewer than 10%. Overall could be said that the analysis results showed significant differences between given before and after being treated.

Table 3. Quesionare Presentation Item by Iniatial and Final Score

No	Item	Initial	Final	Δ.
NO	Item	(%)	(%)	Δ
1.	I practice to present presentation at home	71	87	16
2.	I practice presentation in front of my friends	60	85	25
3.	I give opening greeting	79	94	15
4.	I tell the teaching objective	77	87	10
5.	My group introduce our self	83	96	13
6.	I use media when I make presentation	64	69	5
7.	I answer and respond some questions	74	84	10
8.	I give greeting to close the presentation	83	93	10
9.	I make group reflection	69	83	14
10.	I make conclusion	78	85	7
11.	I tell the materials coherently	74	87	13
12.	When the presentation, I use gesture to strees the presentation topic	68	75	7
13.	I will consider the suggestion/refutation of the group	73	83	10

Table 3 shows the results of analysis data initial and final scores from problem posing quesionare. There are not different with the presentation skills, all item questionnaire problem posing, which item number 1 to item number 12 also enhance score. It's just the magnitude of enhance between before and after treatment are worth less than enhance in the ability to presentation. In fact there is one item that enhances only 1%. And no one any item that an enhancing more than 10%. Nevertheless, overall ability problem posing enhanced significantly.

Table 4. Quesionare Problem Posing Item by Initial and Final Score

Nic	Item	Pre test	Post test	Α.
No	item	(%)	(%)	Δ
1.	I disccuss materisl with my friends	83	89	6
2.	I disccuss to find out the correct answer	73	83	10
3.	I give opportutity my friends to give question	83	90	7
4.	I will responsible of item test I have made	79	87	8
5.	I respect to di fferent opinion	87	92	5
6.	I always discuss to decide something	84	86	2
7.	I do not distinguish / select group of friends in	81	90	9
8.	I provide troubleshooting assistance to friends who ask	77	84	7
9.	I pay attention i discuss time alocation	75	82	7
10.	I talked to designate as the spoke during a presentation	73	74	1
11.	I was not disappointed when my opinion was not used	82	86	4
12.	I evaluated with members about the discussions and presentations	72	82	10

Table 5 shows the result of comparasing test competence before and final treatment. These scores obtained by students before and after the application of problem posing and presentation. From these data seem enhancing in the average, a maximum and minimum score. These indicate that the application of problem posing and presentasion could enhance spirit, motivation, self-confidence and academic achievement of learners [25].

Table 5. Academic Achievement of Students Before and After the Action(N=33)

No.	Test	Maximum	Minimum	Average	StandarDeviasi
1.	Before	95	40	67.4	15.3
2.	After	100	50	77.7	10.3
	Enhancing	5	10	10.3	5.00

Before starting action, lesson plan was created and discussed advance together between researcher and abserver. There are several steps on its core activities which need to be improved, namely to discuss measures during problem posing. Besides, the observer reminded the researcher to be able to manage their time well. At the implementation first cyclus, much time used during discussions with the problem posing. And there are learners who have not been able to cooperate with their friends, there are members of a group does not do the work given from leader group, there are two learners who do not focus on science subjects proven to speak for themselves and there are learners as free rider other group members. Researcher was a facilitator to try providing and understanding of the importance of cooperation, in groups, to respect others, and respect other people's work. After the learners to be warned by the educators, the students work together again in the group and also reminded that after discussions they must continued presentation of students' work.

When the presentation goes on, there are only two groups that do to presentation due to time limited. Both of group presentation, directly to read their result work of the group. The group presentation can not be present either in opening, explained and answered questions from his friends. They are just read the answer, butnot all members of the group, obviously with what was written. Besides that, students who asked during two group's presentation, only three people. At reflection with the observer, observer given some inputs as a material changed on the second meeting. Observer more emphasis the problem learning syntax, characters. Therefore, teachermade some changes to the lesson plan on a plane lessons on problem posing.

At the second meeting have been enhancing in various aspect, the discussion in making item test is better, even a debate when determining the item test selected. This proves that each member of the group had begun to feel the process of acceptance of new concepts built from reading and listening from the opinion of friends. Active time that is needed for discussion is also getting faster but did not leave the essence of the subject matter. There were two learners participants who disturb friend and unactively working group. At presentation has been opened with greetings, introducing their groups of member, and read the questions that have been created. Presenter in answering the question also turns and when no shortage of other friends must help their friends. Likewise, the participants who give questions consist of six people. They represent their group. There is one question that can not be answered by members of the group, then question was thrown to the other participants. It also shows the emergence of honesty, openness, respects the friend opinion of, admitted brilliant their friends, and can advice and criticism from each others[1], [16]. At this second meeting there are two groups also present to the presentation, but not previous above. In the end, presenter close the presentation with regards closing. Educators use minutes to do the posttest.

And after finishing the lesson, researcher discuss with the observer about the course of the implementation of learning. On this second occasion observer assesses the discussions and presentations have been better than the first meeting. Observer advised to be able to facilitate two students need special attention so that the classroom atmosphere more conducive.

The third meeting entered a new basic competency that is substance changes. After educator opened new learning lessons, approximately seven minutes there were two students who come late to class, and they are asked to join the group immediately. In this discussion the participants already feel enjoy with problem solving. Before making about their new share the task to read and create questions and their answer. There was a group leader who gave a message to the group members, so that anyone who makes matter, to be responsible for problems that made all at once if you have any questions on the subject. There are other groups discuss to make the difficult problem that no other group can ask, so presentation goes faster. But this group could not finish the number of questions that should be made. After the discussion time is out, educators told the group that has not been the presentation to do presentation.

Two groups that make presentation have presentation well. They opened with greetings, introduce themselves, communicate its goals, delivering materials in a good order, giving time to ask questions give suggestions and feedback, answer questions and close greeting well. After process has complete of the learning observer just say that learning is good.

At the four meeting observer says to the educators, that he could not care for full because there are other tasks that must be completed. However, the course of learning from start to finish has been as expected. Learning is reallystudents centered and they seem to enjoy the methods used. And until the end of learning educators were told that the next meeting would be held the post test.

The fifth meeting was held post test and filling the students' response to the methods applied and interviews students with four questions. From students was interviewed, the students' answers about questions (1) what do you think about this activity, can be summarized as follows: learners feel happy because they have not been taught by this method and they have new experiences [28]. The answer to question (2) what are the advantages and disadvantages of this activity can be summarized as follows: learners did not answer quickly, but think about it and the answer is mostly answered it is difficult to create questions and answers and can notgives advise against this activity. Itindicates there are still lacks of application in problem posing and presentation methods. This deficiency is a limited researcher knowlagde of, so the other time will be considered the solution.

Teaching and learning by problem posing requires students to read the material before, and then to create questions. If learners can create questions mean its learners have understood what they had been read [26]. Other hand it was the discussion time they are also trained to communicate with a group of friends and friends of the class (when the presentation) that will communication skills realized, confidence, courage and responsibility on themselves disciples [7], [8], [28].

4. CONCLUSION

Teaching and learning science used problem posing and presentastion method can enhance ability communication skill, confidence, courage and responsibility on themselves disciples. Activity learning is focus student (centered student) so that they can use their knowledge to solve his problems. Communication skills are required twenty first century.

REFERENCES

- [1] S. Bernd, "The Importance of Soft Skills: Education beyond academic knowledge," *Journal of Language and Communication*, pp. 146-154, 2008.
- [2] M.Riemer, "Communication skills for the 21st centuryengineer," Global J. of Engng. Educ, pp. 89-99, 2007.
- [3] D. Norah, *et al.*, "Oral communication skills in higher education: Using a performance-based evaluation rubric to assess communication skills," *Innovative Higher Education*, vol. 31(2), pp. 115-128, 2006.
- [4] H.Serkan, "Survey on the communication skills that the college students of school of physical education and sports perceived from the teaching staff," *International Journal of Science Culture and Sport*, vol. 2(1), pp. 54-67, 2014.
- [5] G. Smith, "Communication skills are critical for internal auditors," *Managerial Auditing Journal*, pp. 513-519, 2005.
- [6] M. Bambacas, and P. Margaret, "Assessment of communication skills in manager selection: some evidence from Australia." *Journal of Management Development*, vol. 28(2), pp. 109-120, 2009.
- [7] Chung, et al., "Enhancing students' communication skills in the science classroom through socieoscientific issues," *International Journal of Science and Mathematics Education*, pp. 1-27, 2016.
- [8] T. Oradee, "Developing speaking skills using three communicative activities (Discussion, Problem-Solving, and Role-Playing)," *International Journal of Social Science and Humanity*, vol. 2(6), pp. 533-535, 2012.

[9] S. Ornit, et. al., "Teaching scientific communication skills in science studies: does it make a difference?" International Journal of Science and Mathematics Education, pp. 875-903, 2009.

- [10] C. Kivunja, "Unpacking the information, media, and technology skills domain of the new learning paradigm," *International Journal of Higher Education*, vol. 4(1), pp. 166-181, 2015.
- [11] M. Fathi, et al., "Attitudes toward communication skill among students'-theacersstuden' in jordan public universities," Australian Journal of Teacher Eduducation, pp. 1-8, 2010.
- [12] C. Nealy, "Integrating soft skills through active learning in the management classroom," *Journal of College Teaching & Learning*, vol. 2(4), pp.1-6, 2005.
- [13] A. Qutbi, and B. Ayesha, "Improving english communication skills of Pakistan public school's students," *International Journal of English Language Teaching*, vol. 1(2), pp. 17-36, 2013.
- [14] A. Oliveira, and C. Kristin, "Student visual communication of evolustion," Res SciEduc, 2016.
- [15] M. Jain, "Different techniques for developing cmmunication skill," *International Journal Of Multidisciplinary Research In Social & Management Sciences*, vol. 1, pp. 78-82, 2013.
- [16] J. Harper, "Presentation skills," Industrial and Commercial Training, vol. 36(2), pp. 125-127, 2004.
- [17] P. Hamm, and D. Nancy, "Teaching and Persuasive Communication: Class Presentation Skills. Brown: The Harriet W. Sheridan Center for Teaching and Learning Brown University, 2006.
- [18] E. Shauki, and B. Helen, "Enhancing students oral presentation skills: observation based on undergraduate accounting students," *Asia Pacific Journal of Accounting and Finance*, pp. 43-58, 2014.
- [19] C. Kenkel, "Teaching presentation skills in online business communication courses," Journal of Online Learning and Teaching, vol. 7(3), pp. 412-418, 2011.
- [20] T. Susan S., R. John, S., and J. Anthony, O., "Developing effective presentation skills: evidence-based guidelines," *Researchin the schools*, vol. 7(2), pp. 225-237, 2010.
- [21] T.Sukitkanaporn, and P. Supakorn, "English Presentation Skills of Thai Graduate Students," *English Language Teaching*, vol.7(3), pp. 91-102, 2014.
- [22] G. Maria B., "Sounding natural: improving oral presentation skills," Language Value, vol. 2(1), pp. 51-67, 2010.
- [23] N. Ellerton, "Engaging pre-service middle-school teacher-education students in mathematical problem posing: development of an active learning framework," *Educ Stud Math*, pp. 87-101, 2013.
- [24] J. Knott C., "When a problem is more than a teacher's question," Educ Stud Math, pp. 27-36, 2013.
- [25] N. Presmeg and X.Harpen, "An investigation of relationships between students' mathematical problem-posing abilities and their mathematical content knowledge," *Educ Stud Math*, pp. 117-132, 2013.
- [26] J. Ponte, and A Henriques, "Problem posing based on investigation activities by university students." *Educ Stud Math*, pp. 145-156, 2013.
- [27] F. Singer, N. Ellerton, and J Cai, "Problem-posing research in mathematics education: new questions and directions," *Educ Stud Math*, pp. 1-7, 2013.
- [28] T. Hassall, "The employers' priorities. Vocational skills and capabilities for management accountants," *Industry & Higher, Education*, pp. 421-429, 2001.
- [29] Gall, M.D., Gall, J. P., and Borg, W.R, Educational research: An introduction (7th ed.). Boston, MA: Allyn& Bacon,
- [30] T. Hien,"Why is action research suitable for education?" VNU Journal of Science, Foreign Languages, pp. 97-106, 2009.