



ORIGINAL RESEARCH ARTICLE

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## DEVELOPMENT SKILLS WRITING SCIENTIFIC WORKSTHROUGH THE GROUP COOPERATIVE LEARNING STRATEGY INVESTIGATION STUDENTS IN INDONESIA

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### ABSTRACT

The problem underlying this research is the low skills of the students in Indonesia for writing scientific papers. The low of it, due to use of learning strategies that are less precise. Cooperative learning strategies that are less precise. Cooperative learning strategies type group investigation is expected to be solution to the problem identified so that students and teacher can enhance student's skills in writing scientific papers. The purpose of this study is describing the process of improving students writing skills of scientific work through cooperative learning strategiest type of group investigation. The research method used in action research (PTK). Implementation of the study consist of tree cycles of research. The first cycle of conducted their meetings (3x45 minutes). The action of each cycle based on the results of the previous cycle of reflection. The results showed that the use of cooperative learning strategies type of group investigation led to the process of leaning to write becomes more effective. Factors affecting the improvement of students writing skills of scientific work is the use cooperative learning strategiest type of investigation group.

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### INTRODUCTION

**Preliminary:** Scientific writing is a benchmark towards the advancement of science and technology of a nation. Scientific papers published in international journals is one important measure for see the quality of research in a country. Indonesia as a developing country yet have a high awareness of research. Besides the limitations of the research budget, other causes which are of course also very affect low skills writing scientific papers in Indonesia is a pattern education. This is in accordance with the opinion Rusman (2011) that education should be able to condition and provide encouragement to be able to optimize and arouse student potential and creativity (creativity). This means, school as official educational institutions must provide sufficient facilities and guidance for students can practice until finally able to make quality scientific papers. The author's experience as a language teacher Indonesia teaches writing material scientific in class XI MAN I Kota Sungai Penuh, competency standards (SK) 12, basic competencies (KD) 12.3 which requires students to write scientific works such as observations and the research has a low score or not reach KKM (65).

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Teacher's observation towards the low skills of MAN I students Kota Sungai Penuh in writing scientific papers especially in the Religious XI class. From 31 students only one student reach KKM. Students in Religious XI class unable to write using systematic writing of scientific work (part opener, core part, cover section), happiness (EyD, diction, and effective sentences), and other rules related to reference books and length of writing of scientific papers. Based on experiences the author concludes the need improvements to teaching techniques were held learning problems in the class can be solved. The author chose to use learning strategies as an alternative solving problems that occur in class XI.

### METHODS

Research on improvement skills in writing scientific papers through GI type cooperative learning strategies are classified in the type of classroom action research (CAR). The action research of this class is research that refers to actions teachers can do directly, practically and relevant to the actual situation in the class certain so that it can be used as an alternative to efforts to improve the learning process. Arikunto (2006: 3) explains Research class action is an observation towards learning activities in the form of an action, which is deliberately raised and occurs inside a class together. The

action given by the teacher or direction from the teacher done by students. PTK is conducted in MAN I Sungai Penuh. Class XI in MAN I Kota Sungai Penuh is five class which is divided into two classes XI IA, two class XI IS and one class XI Religious. Subject this research is class XI Religious. Total students in class XI Religious are 31 people students.

## RESULTS AND DISCUSSION

Results of research on skills improvement write scientific work through learning strategies cooperative type GI students. Every the action cycle takes place three times. Initial ability to write summaries, Pre-cycle results show skills writing student summaries is still low. Five indicators that were considered entirely failed completed by students. Assessment indicators the first is the opening part of scientific work qualifications for student grades are sufficient and only obtained five out of 31 students, while 26 others get the value with very poor qualifications. Indicator of assessment to two core parts of the highest value scientific work students also only arrive at enough qualifications obtained from four out of 31 students, while 27 other students scored with very little qualification. Indicator the third assessment is the closing portion of the acquisition the highest score is a good qualification obtained one student, three people with qualifications enough and 26 people get qualifications assessment is very lacking. Indicator of assessment to four, namely language, the highest score it is good to get one out of 31 students, 3 students obtain sufficient qualifications, and 27 others get very little qualifications. The last indicator is the rules of the game, one person students get good qualifications, three people with sufficient qualifications and 27 students obtain less qualifications. Learning outcomes students are still in almost qualification enough. Most students are still wrong in write abstract which is the opening part scientific work, conclusions that are part cover of scientific works, effective sentences that are part of language. Cycle I there were 6 students who got grades with more than enough qualifications, meanwhile 13 people scored with qualifications less and 12 other people got grades with more than enough qualifications. Though the number of students who reach KKM increases, the average value of students in the first cycle is 5.4. Thing that means KKM has not been reached. The problem of learning the first cycle is in the form of factors inhibitors that come from within and at outside of students. Factors originating from within students themselves are as follows (1) results student observation is still what it is or still is too shallow. Students have not used attitude critical in observing a problem. (2) Students do not understand the technique of writing works true scientific especially writing part abstracts and methodologies that are still unfamiliar students. (3) Students do not understand the lesson write scientific work at the level of education previous. Students' understanding too influenced by laziness students read books lessons at home and not taking notes when the teacher explain the lesson. (4) References from the internet which students take to school in the form of articles, not an official journal so it's not valid for used as a reference (5) Range of values obtained by students explained that selfishness students are still high. (6) Through the observation sheet student activities are also known that there are four activity indicator from six activity indicators observed students whose implementation is still on under 70%. Four indicators of student activity the implementation is still below 70% of the amount students namely (a) the activity of students in the discussion group (b) activeness of students asking (c) activeness of students

responds to questions, and (d) activeness of students in expressing opinions. Obstacles (external) factors the process of improving learning outcomes is caused mistakes of teachers and school facilities. Based on evaluation of collaborators included in the note the field is known that the teacher is too fast in delivering lessons. Besides that, teacher not share assessment rubrics for students so students don't know what points only assessed by the teacher. School facilities inhibits the process of improving learning outcomes students are not active in the school library which causes students to have difficulty getting reference book. Cycle II is the number of students who get grades KKM is more than the cycle prasiklus and cycle I. When pre-cycle students who reach KKM 1 person from 31 and in cycle 1 students who reach KKM 6 people out of 31. On the second cycle is the number of students who reach KKM there were 18 people out of 31 people. Learning problems faced in cycle II are (1) amount too many students in one group (2) There are mutual interactions between students (3) There are members groups that have personal problems so the results of group work are not maximum (4) There are students who disobey do not want to participate in evaluating so use of EYD problem groups (5) Students often request dispensation during study hours for take care of OSIM, tambourine training for preparation school farewell, and follow MTQ level area.

**Suggestion:** Based on research findings, application GI type cooperative learning strategies have been able improve the skills of class XI MAN students I Sungai Penuh wrote scientific work. Use of the GI type cooperative learning strategy has also been able to increase critical thinking students, improve the social sense of students, as well as enhance student learning spirit. The teacher should design the program systematic learning comprehensive in order to provide opportunities sufficient learning for lucky students develop his potential.

## REFERENCES

- Arikunto, Suharsimi. 2006. *Dasar-Dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara. Asma, Nur. 2009. *Model Pembelajaran Kooperatif*. Padang: UNP. Pres. Burhani, Ruslan. 2012. "LIPI Masuk Elite Top Lembaga Riset Dunia". [http://www.antarane.ws.com/berita/330125/1\\_ipi-masuk-elite-top-lembaga-ri-set-dunia](http://www.antarane.ws.com/berita/330125/1_ipi-masuk-elite-top-lembaga-ri-set-dunia). Diakses 14 Agustus 2012.
- Dirjen Kelembagaan Agama Islam Departemen Agama. 2005. *Pedoman. Penulisan Karya Ilmiah Guru*. Jakarta: Departemen Agama RI
- Gie, The Liang. 2001. *Terampil Mengarang*. Yogyakarta: Andi Offset.
- Komaidi, Didik. 2008. *Aku Bisa Menulis: Panduan Praktis Menulis Kreatif*. Lengkap. Yogyakarta: Sabda Media.
- Rifai, Mien A. 1995. *Pegangan Gaya Penulisan, Penyuntingan dan Penerbitan Karya Ilmiah Indonesia*. Yogyakarta: Gajah Mada University Press.
- Robandi, Iman. 2008. *Becoming the Winner: Riset, Menulis Ilmiah, Publikasi Ilmiah, dan Prentasi*. Yogyakarta: Ando Offset.
- Rusnan, 2011. *Mode-Model Pembelajaran*. Bandung: Rajawali Pers.
- Slavin, Robert E. 2008. *Cooperative Learning Teori, Riset dan Praktik*. Bandung: Nusa Media.
- Solihatin, Etin & Raharjo. 2008. *Cooperative Learning*. Jakarta: Bumi Aksara.
- Tanjung, Bahdin Nur dan Ardial. 2008. *Pedoman Penulisan Karya Ilmiah (Proposal, Skripsi, dan Tesis) dan Mempersiapkan Diri Menjadi Penuli Artikel Ilmiah*. Jakarta: Kencana.
- Tritanto. 2010. *Mendesain Model Pembelajaran Inovatif Progresif*. Jakarta: Kencana. Wardhani, 2007. *Menulis Karya Ilmiah*. Bandung: Nusa Media.