

## The Development of Write Textbook for the Postgraduate Elementary School Education (PGSD) Program Contextual Learning Approach Based

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### Abstract

This study aimsto: (1) describetheneedto writea textbookwritingscientific papersby facultyandstudents ofIndonesianPGSD(2) developa prototypetextbookwritingscientific papersbasedcontextual learning; (3) develop theprototypeinto atextbookwritingscientific papers; (4) determine the effectiveness oftextbooksthathave been developedthrough experimentation.This study soughttodevelopa textbookWritingScientificMethod(Year I /2014); ChildrenWritingTechniques(Year II/2015); WritingandPoetryChildren'sStrategy(Year III/2016). This type of researchisthe research& development. Before thedevelopmentof research, conductedpreliminary research. After that, a phase ofthe prototype; development ofthe prototypeinto a text book; in the third stageproducedtextbooksthat have beenvalidated; and thefourthstage oftextbooksthat have beentestedexperimentallyandpublished, seminarthroughfocus group discussion (FGD). The experiment was conductedinElementary School Education (PGSD)Study Program in Central Java Province, Indonesia on 2014.The data analysis was conducted on extensive testing phase, the statistical t-test non-independent, the results showed that the value of the t-test = 6.444> t-table in the ts 0,01 = 2.144, the value of the text book method of writing scientific papers developed higher than the textbook used. In the fourth stage of statistical analysis with independent t-tests to test the effectiveness of the textbook. From the results obtained by the statistical calculation of the value of t-test = 6.476> t-table value in ts 0.01 = 2.144. That is the textbook method of writing scientific papers developed significantly more effective. This research is very important to know the response of the users, caregivers, teachers and students. In addition, this study attempted to want the real situation on the mastery of writing scientific papers for students today.

**KEYWORDS:**textbooks, writing skills, scientific papers, contextual approach

### INTRODUCTION

Learningto writeis integratedinto thelearningIndonesianinCentralJavaElementary School Education Study Program or PGSD(UNS, UMK, UKSW, UNNES, andUMS) is givenalmostineverysemester thatintegrateswithlectureIndonesian. In thefiveagencies,the bookis afundamental referencebookused. Thefaculty and studentsfeel theurgent needfor thepublication oftextbookspeganganthe lecture.

Activity associated with thinking, writing has been implicated as an activity that is personal for a particular purpose. In relation to the process that aims, the results

of that process will be a product that has the essence of writing as desired. To that end, the process involves cognitive activity that requires certain skills and specific skills to produce work based on the expected goals. Thus, the skills can be acquired and developed through learning that includes process and outcome. The development of writing skills mastered through the deepening of theory and needs to be balanced with exercise. As revealed Sabarti (1991: 213) that writing is a productive activity in continuity. Meaningful exercise required the presence of an effective assessment. Its function is to exercise not just repeat the same activity or replicas with minimal improvement.

Effective interaction between students and teachers is an important way for the success of learning, as proposed by Suharto, S (2005: 89) contextual approach is the concept of learning that helps teachers in linking between the material being taught with the real world. In this case the teacher encourages students to connect between science (knowledge) which has to be applied in real life. With such a concept, the learning outcomes expected to be more meaningful for students. The learning process takes place naturally. Students work and experience for themselves and not just transfer knowledge of the teacher.

For the purposes of fulfillment of these textbooks, the research & development (R & D) was held in the Central Java region PGSD. Having conducted a preliminary study, and drafted the prototype textbook "Writing Methods scientific work" for PGSD based contextual learning. The prototype, then developed into a text book through expert judgment, limited testing and extensive trials and testing the effectiveness to the next stage.

The phenomenon is less successful learning Indonesian (write) in PGSD can be said to be the most dominant current is the low level of student mastery of writing. This is due, among others, the limitations of the textbook as a reference. The raw material to be learned in writing class inadequate. The books are there classes (commonly used) are not yet fully support the success of language (writing) student (Slamet, St.Y, 2008: 2).

Another problem encountered is also still the conventional learning process. Learning is dominated by professors and lecturers lack of adequate teaching materials and are not presented in accordance with the interests of students and conditions that lead to mastery of language into low level (Slamet, St.Y, 2004: 8). This happens because one of them is less instructional materials presented in accordance with the existing context.

The paradigm of modern education has changed some of the principles of learning. Original direction of learning that stresses the importance of repetitive practice to cultivate the habit has now evolved and transformed into constructive learning, that is learning that emphasizes the importance of the role of cognitive information to construct (Roesmiati, D, 2005: 90). Orientation learning is teacher-oriented people are now left with a change to a student-oriented learning (student-oriented), one of them with the implementation of a new paradigm, namely contextual learning.

Currently, the subject matter relevant to the lectures have been published and sold in bookstores (from the author of them: Tarin, Gorys Keraf, Brotowijojo, Badudu, Ramlan, Suparno, Sabarti, Ward). However, of all the material which they set in the book is not arranged in a systematic and well organized. The book is

organized must meet standards: (1) in accordance with the standards of competence and basic competences set BSNP; (2) covering a range of up to about 2005; (3) includes the author's capital, metropolis, and the author; (4) in accordance with the principles of multiculturalism; (5) easy to understand and enhance the motivation to learn to write; and (6) compiled this book uses a contextual approach (Djanali, 2007: 21).

For the purposes of fulfillment of textbooks, the research and development carried out at the Regional Studies Program PGSD Central Java. Having conducted a preliminary study, and drafted prototype textbook "Writing Scientific Method" for PGSD based contextual learning. Prototype, and then developed into a textbook through expert assessment, initial field testing, and testing and evaluating the effectiveness of the main field for the next stage through experiments.

## **METHODS**

The method used in this study methods of research and development (R & D). This research method is used to produce a text book, which is developing a writing textbook-based learning for contextual studies program PGSD Central Java. This type of research is the development of research carried out on 2014 research was conducted on the students of fourth semester study program PGSD Central Java.

This research procedure simplifies and summarizes the concept of Galletal. (2003: 569) which consists of 10 stages to 4 stages, namely (1) the phase of the prototype, including: (a) literature review, (b) exploratory study, (c) identification of needs, (d) needs analysis textbooks (e) a description of the findings, (f) design prototype, and (g) a prototype workshop; (2) the development of prototype into textbooks, including (a) the expert assessment, (b) limited testing and revision, (c) extensive testing and revision, and (d) the products of new textbooks; (3) the testing phase, which tested the effectiveness of textbooks that have been developed; and (4) stages of dissemination, publication, and dissemination.

The data source of this research is (1) events, (2) the informants, and (3) documents.

Data collection techniques are: (1) the interview; (2) observation; (3) Focus Group Discussion (FGD); and (4) test. This study used a questionnaire, observation sheets, and test instruments capability to make paper.

The data analysis was conducted on the stage of development of the statistical t-test non-independent at large trials (main field testing), while in the stage of testing the effectiveness of statistical analysis with Independent t-tests.

## **RESULTS AND DISCUSSION**

Based on observations in the field (January - March 2014) can be reported that the quality of teaching materials in the field has not been adequate. This is due to the fact, write books (scientific papers), the old text books that are not embodied in a separate lecture material should also be owned by the student. Textbooks for Prodi PGSD existing commonly used, but the book did not answer their problems due to the complete lack of theoretical contents and no examples. Therefore, students do not have textbooks enrichment lectures and textbooks are adequate. Set of teaching

materials lecture delivered in lectures by professors. There are several study programs that have used LCD media.

From the results of the questionnaire were distributed to the faculty and students of Central Java PGSD data showed that writing textbooks commonly used in PGSD inadequate. Therefore, the teachers expect the publication of text book writing scientific papers is to enrich the learning materials.

According to Tarigan, H.G (1985: 12) textbook is a book that is used to study a subject of knowledge, science, technology, and art that contains a presentation of the principles of scientific work and kependitan associated with it. The book should contain material of knowledge or discipline subjects contained in the curriculum. The contents of the book must fit or support pembelajaran in school. Can also be argued that enrich textbook textbooks used in schools (Trihartati, 2010: 17). Meanwhile, Sabarti, Maidar, and Sakura (2006, 2) revealed that the contents of textbooks are included: (1) Introduction; (2) Table of contents; (3) Body is divided into chapters or sections; (4) References; (5) Glossary; and (6) Index.

Textbooks are distinguished with textbooks because textbooks are very closely related to the curriculum, syllabus, competency standards, and basic competence. Can also be said that the textbook was published books to support the curriculum and syllabus and published by the government, in this case is the Center of Books Ministry of Education and Culture. There is a printed textbook form of electronic books (Pusbuk, 2010). Textbooks developed in this study is the book to supplement textbooks that have been published by the government. Can be expressed also this textbook is the companion book (books enrichment). In observation and interviews with faculty and students in courses PGSD Central Java, data showed that writing books used in the course PGSD inadequate. Therefore, the faculty expects textbooks to enrich student learning materials. When all the professors interviewed, they reveal that the teaching materials are given inadequate. The contents of the teaching materials provided by the lecturer at a university different from other universities. This results in that the student can not master well as teaching material was packed from various sources and delivered by lecture. The introduction of teaching materials, which target large enough (a lot), can not be adequate for the average student does not master the problem and they just make a note of a given faculty. Of course, the process of writing a note it is not possible finish. Without adequate references, professors tend to give study material of interest to the students and at least give the burden of learning again.

An article categorized as scientific papers when the paper meets the requirements of the scientific literature. There are some traits that mark an essay can be called scientific work. These characteristics, according Nartani (1997: 21) include: (1) systematically presents the objective fact, (2) an opinion or a discovery is precise, accurate, and honest, (3) scientific work are not patterned debate (argumentative) and not persuasive, (4) raised the issue completely and thoroughly, and (5) using a variety of scientific language.

Presentation of objective fact is supported by the data, information, or information. The facts presented through the analysis and interpretation that have high validity and what adaanya. Said to be objective because it is presented systematically. Each step of writing scientific papers planned conceptually and procedurally.

Disclosure of mind in scientific papers based on the facts. It is also expressed by Achmadi (2011: 30) that characterize the scientific work is (1) revealing and solving scientific problems, (2) disclosure of the opinion supported by facts, (3) is accurate and complete, (4) development in a systematic and logical, and (5) is neutral and unemotional.

In making the title of the scientific work, there are several things to consider. In Achmadi (2011: 33), stated that the things that need to be considered in formulating the title are (1) the title should reflect the content or topics raised in writing, (2) the title should be expressed in the form of a phrase or clause, not in the form of a sentence. That is why, the title of the scientific work is not diakiri by periods, (3) the title should be brief and clear, and (4) headline should attract the attention of the reader to determine its contents.

Five steps systematically writing scientific papers is as follows. First, the preparation of writing scientific papers. Second, the collection of data or information and materials writing scientific papers. Third, the development of an outline for writing scientific papers. Fourth, the process of writing scientific papers. Fifth, the process of editing (editing) scientific work.

In improving learning to write scientific papers used contextual approach. Contextual learning (Elaine, 2002: 10) is carried out in the context of learning, both the context of linguistic and nonlinguistic context. Meanwhile, according to Depdiknas (2002: 5) contextual learning is learning the material being taught to associate with the real world of students and encourage them to make connections between their knowledge with knowledge in everyday life.

Before the contextual approach was introduced to the world of learning, real world education has been using the term that has a meaning related to the context of student life. Among other terms, problem-based learning, student-centered learning, active student learning, inquiry-discovery strategy.

Contextual approach is a concept study in which teachers bring real-world situations into the classroom. In addition, students are encouraged to make connections between the knowledge possessed by its application in their lives as members of the family and community (Nurhadi, 2003: 4). With the concept of learning outcomes expected to be more meaningful for students. The learning process takes place naturally in the form of student activities and work experience, not menstransfer knowledge of lecturers to students. Learning strategies more important than the results (and Agus Nurhadi Senduk Gerrard, 2003: 6).

Within this contextual approach involved seven major components of effective learning (Sanjaya, V, 2007: 262-267), namely (1) constructivism, (2) find, (3) the exercise asked, (4) learning community, (5) modeling, (6) reflection, and (7) authentic assessment. Constructivism is the foundation of contextual learning, which is the process of building new knowledge in the structure of the student based on experience. The philosophy of constructivism learning uses an active process of constructing something (Paul Suparno, 1997: 62).

As mentioned before, given the instructional materials for learning include the theory and practice of writing scientific papers (making papers, articles). Weakness in providing theoretical material to write scientific papers is the time available for learning is limited and requires a lot of skill to write a regular practice. Therefore,

scientific writing is to write complex. In addition, the basic competencies and competency standards related to writing scientific papers is very important to master. It also can not be realized because it is still a theoretical approach to learning and understanding of the topic and put just memorize it.

The procedure is the development of measures of activities that will be carried out in preparing the product, namely textbooks (Djanali, 2007: 16) which includes: (a) planning; (b) exploratory studies; (c) development of a prototype, and testing the effectiveness (d) products.

Validation or testing of prototypes to be developed into a book through three stages, namely: (1) validation of expert (expert judgment) and revision: a prototype has been examined by experts and then proceed to the revision by the researcher; (2) the initial field test followed by revision: it conducted for 15 students and is led by a teacher; (3) The main field test which was followed by revision: tests performed at 3 schools and is also called the primary field testing and revision.

After completing the main field test and was always followed by a revision of the prototype can be declared to be a text book. As said before, that experimental tests using an experimental class in a course grade UNS PGSD 4 A and C. Before performing data analysis to compare the effectiveness of textbooks used in PGSD UNS with books commonly used in PGSD MSE, it is important to do: (1) analysis of variance homogeneity; and (2) analysis of samples of normal distribution. The data must be tested with sample distribution normality is: (a) the ability of data to write scientific papers (papers) experimental class students (in PGSD UNS); (b) the data's ability to write scientific papers (papers) control class students (PGSD UMK).

Homogeneity of variance test technique used is the Bartlett test. Testing criteria used is that  $H_0$  is rejected, if in fact  $\chi^2$  count  $\geq \chi^2$  table. Conversely, if  $\chi^2$  count  $\leq \chi^2$  table, then  $H_0$  is accepted because the calculation is found that  $\chi^2$  count = 0.864 and 0.0  $\chi^2$ - table ts = 0.356, then  $H_0$  is accepted. This means that the data is the ability to write a paper on eksperimenn group and control group were compared are homogeneous. Techniques used sample test for normality of distribution-Smirnof Kolmogorof test, the experimental class for the data generated Z of 1.253, while the Z table value = 0.087. Thus, the data are normally distributed experimental class. Normality test the ability of a paper in the control group obtained Z value of 0.798, while the Z table value = 0.547. Thus, the ability to make the data normally distributed control class papers.

Hypothesis testing in evaluating the effectiveness of this textbook with one way ANOVA test. Independent t-test by comparing the experimental class to class comparison (control) of the results of statistical calculation, the value of t-test = 6.476, while the value of t-table in the ts 0,01 = 2.144, then  $H_0$  is rejected and the hypothesis is accepted. This means that writing textbooks developed in this study is more effective than a used textbook.

## CONCLUSION

Based on the analysis and research results can be summarized as follows: (1) after discussions with some stakeholders in the FGD, it can be stated that the stakeholders responded positively to the development of textbook writing. Faculty and students are in need of text books; (2) prototype textbooks can be compiled after through library research and exploration by using a contextual approach; (3) through

the three stages of validation that has developed a prototype of a textbook that has been tested for validity and effectiveness through the t-test non-independent, three-step development are: (a) expert assessment; (b) the initial field testing and revision; and (c) main field testing and revision; (4) testing the effectiveness of text books with classroom action research and compared between the pre-test and post-test with statistical t-test non-independent. T-test results stating that there is a significant difference between pre-test and post-test on the results of the work of teaching and learning writing ilmiah taught by using a contextual approach which has been developed effectively. based on the research results, it can be suggested that the textbook method of writing scientific papers that have been developed and tested its effectiveness can be used in the course PGSD. This book has been developed through expert assessment and repeated revisions that have reliability in use. The products produced in this study is a textbook Writing Scientific Method that can be used by lecturers or teachers, students, and stakeholders.

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