Improvement of the Elementary School Students’ Reading Comprehension through Generative Learning Model
(A Quasi-Experimental Study on Reading Learning Model of the Elementary School Students at Subdistrict South Sumedang, Sumedang Regency)

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ABSTRACT

This study reports an application of learning model—the so-called generative model considered to be capable of exploring students’ potency, developing their creative thinking, and enhancing their reading comprehension competency. Based on the result of data analysis, it is known that the process of reading-comprehension learning runs well in full activity of students. The students’ tendency to the learning of reading comprehension using such a model is positive in the means of 75.10%. The generative learning model succeeds in enhancing the students’ competence of reading comprehension. The means of score before the treatment is only 53.80%, whereas after the treatment it gets 72% in which the index gain is 0.41 and it is categorized into mediocre. There is difference of reading-comprehension competence between the use of generative learning model and conventional model. It is proven by t-test, indicating that $t_{observed}$ is higher than $t_{table}$. Therefore, the generative learning model is effective and reasonable to use for the teachers in the improvement of students’ reading-comprehension competence.

Keywords: Generative Learning Model, Reading Comprehension, Learning Process, Learning Outcomes, Students’ Response

INTRODUCTION

The human resource with high quality, in globalization era, is nowadays absolutely needed. High-qualified human beings are just evoked by the right education. The education can greatly contribute to solve various problems the human beings have. It gets along with Naisbitt in Syaodih (2007) confirming that, “Education and training must be a major priority, they are the keys to maintaining competitiveness”. The quality human resource with tough norms and values, high work-ethos and discipline resulted in the high quality education can overcome various problems faced by human beings. Hence, the education, in accordance with the development of technology and national culture, plays a significant role of attaining progression of a country. Such a process goes through very long experience.

There are nowadays a lot of critics to the world of education, especially its role of forming quality human beings as instructed in the constitution. Rosyada (2009) explains, “the weak human resource resulted in education causes Indonesia indolent to get up from the
economic decadence seriously happening in 1998”. One of factors causing such a condition is that capability of Indonesia’s human resource may not compete with other countries’ in international constellation. Human Development Index (HDI) of Indonesia is so apprehensive since in 1996 Indonesia’s HDI got the ranking 102 and continuously declined to 109 in 2000 from 174 countries in the world, getting one grade over Vietnam and some grades over Myanmar (ranking 125), whereas the other countries of ASEAN have better ranking over Indonesia (Sukmara, 2007).

One of efforts done for promoting Indonesian education is shift from centralization to decentralization system in the management of education. In addition, the government’s commitment in actualization of quality education can be seen by legalizing the Act of teachers and lecturers in which it contains about improvement of professionalism and teachers’ welfare. The government realizes that through the quality education active, creative, innovative, and empowering people can be produced.

Indonesian development is indirectly held by the young generation taking study at several levels of education, either elementary level or high education. They are those people continuing the development of this country. Therefore, the improvement of quality education is properly conducted in sporadic ways to each sector and component, and implemented by all sides taking role of education. It will be hard to actualize if we just rely the quality education on the government. It may be just realized in gradual ways and long time, also seeing and giving priority scale, for instance focusing more on quality of the elementary education.

The basic education, mainly elementary schools, is in a strategic position as to enhance quality of Indonesian people. As we know, it makes up a foundation for next education levels. The quality elementary schools will surely constitute a strong base to next education levels, either primary or high education. The role of basic education is specifically based on the rule of National Education Minister, number 23 in 2006, that the basic education is aimed at constructing foundation of intelligence, knowledge, personality, character-building, and life-skill to be independent and continuing education to the next levels (Syoadih, 2007). After all, the students need to be provided through a lot of knowledges and sufficient attitude in order to make them capable of living amongst people in high status. Those components can be accommodated through activities of meaningful learning and other ones, for example, an independent activity, reading done by the students continuously.

Reading is one aspect of language proficiencies that needs to be developed. Through the reading activity we can know all thing that we do not know before. Hence, it is understandable that level of students’ reading interest may also indirectly play a role of progressing our country. Later on, Rusyana (1984) explains, “The reading competence is very important for maintenance and development of social life, either
individually or nationally, in order that the people can survive on earth”. It means that the habit and competence of reading constitute may become one of factors causing a country developmental and progressive.

The students as young generation for this country have to possess competence and skill of cultivating information that is increasingly more and more from day to day. Having a high competence of reading, they will not be left behind by the development of both knowledge and technology eventually giving impact to quality of their own life. One of reading competences that they should have is reading comprehension. The students, through such a competence, will totally understand meaning within the textual discourse. The more the students understand a discourse, the broader their thinking-insight is in going along the development of age in all aspects of life.

The reading comprehension is a linguistic activity done by someone in purpose of grasping the meaning contained in the textual discourse deeply, totally, and holistically. This statement is adapted in Soedarso’s definition (2006), “Reading comprehension is a competence in understanding of main ideas, supporting sentences (minor details), and overall comprehension”. In other words, it is a process done by somebody in the framework of grasping meaning within the reading texts in detail, total, and holistic.

Reading activity is necessary to do for the students in order to get all kinds of knowledge, so that maximal capability may be obtained at the end of learning. People, in other words, may gain a lot of knowledge and skills through empowering the reading activity. The reading proficiency is hence a great catalyst in empowerment of Indonesian human resource, especially the elementary schools’ students as young generation continuing the Indonesian development. This case is challenge of teachers, administrators, educational observers in the efforts of seeking out some solution to the improvement of students’ reading activity.

Enhancement of the students’ reading competence is important to do optimally in any ways. One of the teachers’ efforts to help the government’s program is to implement a learning model that can explore some various students’ potentiality. As a front liner to the world of education, the teachers need to create a learning atmosphere enabling their students to revive cognitive structure and to build up new structures as to accomodate new knowledges. In accordance with such an explanation, learning is basically a process of developing students’ thinking-creativity for the sake of digging up several students’ potentials, so that they can compete with others in the global constellation (Firdaus, 2007). One of the models supposed to be capable of developing the students’ thinking-creativity is a generative learning.

The generative learning is a model focusing more on actively integrating the new knowledges using knowledge the students have before (Osborne and Wittrock, 1995). It emphasizes ways of reinforcing human’s internal motivation to understand
environment by exploring and organizing information, solving problems, and developing language. The point of generative learning is that human brain is not passive receiver of information but active in acceptance of constructing and interpreting input (any information) and make conclusion based on such an input. It involves mental activity in developing of students’ thinking-creativity in the line of their learning process. In principle, the generative learning is therefore leaning on views of constructivism by assuming that new knowledge is constructed in students’ mind.

The generative learning is considered being suitable for learning reading because both of them employ the mental activity of cultivating information as an input coming from outside. This research is significant to conduct and so useful for developing knowledge and for solving the reading problems. After all, the writer, in the framework of developing a model of reading learning and of helping the government’s model as to enhance the reading interest, is interested in conducting research on application of the generative learning for the students of elementary schools at South Sumedang, Sumedang.

Objectives of this research are to investigate a process of reading comprehension learning using the generative learning model; to wish to prove that the students’ competence of reading comprehension is increasingly better after such a learning model is applied to them; to understand that there is difference of learning success for the generative learning and the conventional model; and to know response of the grader students of the elementary schools at South Sumedang on process of reading learning using the generative model.

Related Literature Review
In working with this study, the related theories are taken from Osborne and Witrock (1995) classifying the generative learning into four steps: (1) the preliminary step, (2) the focus step, (3) the challenge step, and (4) the application step. The points of them can be seen below:

The Preliminary Step
This first step is also called as an exploration or introductory step. At this stage, a teacher has to guide his or her students to explore knowledge, ideas, beginning conception they have already got before. The beginning conception can be used as a basis or turning point of the learning program that will be conducted. To lead them to do exploration, he or she can give them stimuli, such as questioning, problems, giving assignment relating to conception they will have to learn. The stimuli are given them in order to enhance their motivation and anxiety to those conception they will have to get.

The Focus Step
The second step focuses on new conception the students will have to learn. They, at this stage, do a lot of activities to prove assumption of a truth or hesitation on a problem dealing with a certain conception. A teacher has to design learning assignments as good as possible in order to give a chance and design them to prove their assumption in their own ways. This explanation is in the line of Wena’s
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statement (2009), that is, “Learning assignments designed by the teachers shouldn’t only be a clue or procedural steps, but provide the students an opportunity to work on them in their own ways.” In other words, they are given independence to solve some problems or certain tasks correlating with conceptions they learn. At this stage, students’ questions come up in terms of new topics or conception they get.

The Challenge Step

This third step is also called as introduction to conception. The students, after finding several things at small groups, decide to make conclusion. They are asked to present their findings in larger discussion group, a class discussion. At this occasion, the teacher give them a chance to share their opinion with each other, so that a student can compare his or her opinion with another one. This sharing idea is surely based on some arguments, findings, facts, and data obtained by them at the previous steps. Therefore, they, at this stage, practice expressing opinion, ideas, critics, and capability of debating based on evidence, facts, or logical reasons.

The Application Step

At this step, it is necessary for the students to manage to solve problems relating to the real world using a new concept they have already got (Wena, 2009:180). Giving question, home assignment, and project-based tasks are forms of solving problems taken by the teachers at this stage. The given questions begin with the simpler to the most complex one. This way is done in order that the students do not undergo frustration when failing to answer the given questions. They, by working on the simpler questions, have good opportunity to answer them correctly, so that their motivation will be increasingly higher. Giving questions is intended to increase their understanding to the new conceptions they have already learnt. At this stage, the teacher has to guide, lead, and encourage them to solve the problems using the right concepts. So, it is expected that they can overcome the problems, verbally express them in right ways, criticize problem-solving of another group, assess problem-solving, and make logical conclusion. The new concepts, through such a learning activity, can be constructed and saved in their long-term memory.

Method

The method employed in this research is quasi-experiment with the model of the matching only pretest-posttest control group design. This method is selected under the consideration that this research tries to see whether or not the students’ reading comprehension improve significantly after they join the process of teaching and learning using the generative model.

The observation, in this research, was conducted twice, namely before and after teaching and learning process. It was operated on the experimental group given a treatment—the use of generative learning model and the controlling group—the use of conventional learning model. The difference of learning outcomes between the experimental class and the controlling class is assumed to be a result of giving treatment, that is, the generative model.
Subject of this research is all six graders of the state elementary schools at South Sumedang. They are widespread at the downtown and suburban. The sample-taking technique was conducted by the random sampling. Such a technique is based on an assumption that characteristics of population for each cluster are homogenous. It means that learning environment and facilities are not different at each of the elementary schools.

The main technique used for collecting data of this research is test, questionnaire, and observation. The test was conducted to measure the students’ comprehension on content of the discourse and its form is subjective test—question-answer and objective test—multiple-choice test. Each of question has four alternative answers with one correct answer only. The questionnaire was operated to filter data as the students’ response to the teaching and learning process of reading comprehension using the generative learning model. Through the given questionnaire the students’ tendency to the generative learning model can be detected whether it is negative or positive. Next, the observation was conducted to see and understand the learning process of reading comprehension using such a model. It was operated on the preliminary stage, the focus stage, and the evaluating stage in the learning and teaching process.

They, after the data were collected, were analyzed qualitatively and quantitatively (using parametric statistics). The qualitative analysis was performed in the framework of interpreting meanings on the learning process, competence of reading comprehension, and the tendency of the students’ view on the learning they executed. Meanwhile, the quantitative analysis was intended to know what degree of success of reading comprehension learning using the generative model.

The competence enhancement of students’ reading comprehension was analyzed by comparing the result of pretest with that of posttest. Such an analysis was executed by using index-gain calculation based on Meltzer’s formulae. The calculation was used for knowing the enhancement of students’ competence on reading comprehension after the learning process with the generative model was conducted already. The interpretation of criterion of index gain used in this research is that if $g > 0.70$, the grade gain is then stated in the high category; if the index gain is in the interval $0.30 \leq g \leq 0.70$, the grade gain is stated in the mediocre category; if $g < 0.30$, the grade gain is stated in the low category. The hypothesis test was carried out by comparing the result of posttest around learning of reading comprehension between the experimental class and the controlling class through the statistic calculation of two treatments. The hypothesis test was also conducted by the normality test of distributing the data, the homogeneity test of two variants, and t-test.

Finding and Discussion

The Learning Process of Reading Comprehension

Learning of reading comprehension using the generative model generally consists of three parts: pre-learning, the focus, and evaluating. In detail, at this learning activity there are four stages: the preliminary step, the focus step, the
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challenge step, and the application step as a typical characteristic of the generative learning model use. The writer, in such a learning process, directly took a role as a teacher teaching the learning of reading comprehension using the generative model. This learning activity is conducted by purpose to keep essential things in terms of using the generative model. Three senior teachers, based on the direct observation, had already implemented the learning stages properly as stated in the course designs the writer made.

The preliminary step is an introductory activity to the learning in the classrooms. Such an activity operated on three sample groups began with conditioning students. This step was operated by the researcher to introduce himself and check their attendance. Later on, the researcher explained his intention of conducting the research as well as the basic competence and indicators they should get. After the students were ready for learning, aperception relating to the learning material was implemented by purpose to make them focus more on it. The preliminary step to the three sample groups generally ran well. All student, as this step was done, highly paid attention on each of explanation provided by the researcher, so that it helped success of the learning activity.

At the main activity, as stated above, there are four stages of learning reading comprehension using the generative model. At the first step (preliminary), the researcher explored the knowledge, ideas, and the beginning concept that the students possess by using question-answer. The learning activity was initiated by doing the question-answer about means of transportation often used by human beings at this time. The material, after a lot of students’ ideas on transportation came up, focused more on on of them, that is, cars. The question-answer was led to forms, components, and function of cars for the human life. The students’ response to the given problems is good. It is proven that the observation result showing that each of elementary schools as the research samples underwent high frequency of question-answer at the beginning of this learning activity.

At the second, the focus step, the students were classified into some small groups. Next, a problem on the component, the form, and the maker of the first car in the world was given to them, so that every group can seek out a solution to each problem. Based on the observation data, every student of each group practiced the question-answer and the group discussion on the given problems. They strived for identifying and solving the problems by checking and giving priority to the problems considered being important by means of taking benefit of the given resources. The class discussion conducted by them was successful since the researcher directly took a role as a teacher continuously giving guidance and monitoring the learning activity with them. In the world of education there is a principle confirming that the teacher should continuously involve the students to explore and dig up a lot of potentials they have.

Next, the third step, the challenge, each of student groups was asked to conclude what they have already learnt in the class
discussion. Each of the groups, after, was asked to present their findings in the class discussion. When the discussion was being run, all students were asked to share their ideas with each other reinforced by the logical argument. Such a learning activity to each group ran well. Each delegation of groups expressed his or her opinion as resulted in the discussion of small groups about the components, forms, and the maker of the first car in the world. The teacher, in the learning process, did not correct and blame opinion of each group. Every student freely expressed or constructed his or her new notion, ideas, and knowledge based on the result of discussion. Interaction amongst the classmates in the groups enabled them to develop their social intelligence, for example, expressing opinion or criticizing it politely, and respecting the different ideas among them.

The last step of such a learning activity is application. In this step, the reading text on the related issues were provided or given to the students. It entitled *Benz, Anak Miskin Ciptakan Mobil Pertama di Dunia* taken from the book *Pelajaran Bahasa Indonesia untuk SD/MI kelas VI*, written by Witarsa *et al*. Each of students was assigned to read it using the silent reading technique. The teacher, after the students finished reading it, proposed some questions in terms of the content of the reading text. In the question-answer each of them was given a chance to comment on another student’s answer reinforced by the clear argument. Generally each of answers and comment was based on the reading text they read.

At the end of learning activity, every student, in the control of teacher, tried to conclude what material they already had learnt. Next, the written test was given by purpose to measure their competence of reading comprehension after the generative learning was applied in the learning process. In the control of their teacher the implementation of test to each of groups ran well. All students managed to answer every question based on the reading text they read.

Based on the result of data analysis on the learning process of reading comprehension using the generative model, the learning activity ran properly in the students, high activity. In this case, students themselves as active learners strived for solve the given problems in the class discussion, whereas the teacher acted as a facilitator, administrator, and motivator for them. At the beginning step, the teacher can accommodate the students to constructive atmosphere of learning by explaining objectives they have to achieve and by doing aperception to focus on their attention. At the focus step, the learning activity was done by generating the students’ motivation and anxiety as stated in the generative learning model. Next, at the last step, the learning evaluation was conducted in order to get comprehensive description on the students’ competence of reading comprehension after finishing the teaching-learning process. All stage is executed as guided in the course guideline. Thus, the generative model, in the framework of enhancing the students’ creativity of learning, is one of the learning models that the teachers may select to get success of their teaching.
Enhancing Competence of Reading Comprehension

Based on the result of data analysis the students’ competence of reading comprehension is categorized into low before applying the generative model in the learning process. It is proven that the means of score on reading-comprehension competence after giving the treatment to the first experimental class is only 56.3%, to the second 52.5%, and to the third 52.7%. So, the means of scores on the reading-comprehension competence before applying the generative model to all of the samples is 53.8% and categorized into low score. To know whether or not there is a degree of significance on the students’ competence of reading comprehension, the teaching-learning process with the generative model was conducted propely.

Based on the data analysis to the learning outcomes for the experimental class, the students’ competence of reading comprehension after applying the generative learning model is up to the fair category. It is proven that the means of score on reading-comprehension competence after using the generative learning model to the first experimental class is 72.3%, to the second 72.6%, and to the third 71.1%. So, the means of scores on the reading-comprehension competence after giving treatment for all of the samples is 72% and categorized into fair.

For the sake of supporting the finding above, the index gain was calculated on the result of pretest and posttest of the three experimental classes using Metzer’s formulae. Based on the index gain calculation, the students’ competence of reading comprehension after using the generative learning model is increasing and categorized into mediocre. The index gain means of reading-comprehension competence before and after applying the generative learning model to the first experimental class is 0.38, to the second 0.44, and to the third 0.40. Thus, the index gain means of reading-comprehension competence is 0.41. It is in the interval $0.30 \leq g \leq 0.70$. It indicates that their competence after using the generative learning model is in the mediocre category.

Hypothesis Test

The hypothesis test was conducted by comparing the posttest result of experimental class practicing the generative learning model with the controlling class practicing the conventional learning. It was done using the t-test because based on the previous statistic analysis the three data groups as the research samples have the normal distribution and homogenous. Based on the result of t-test to the three data groups there is a difference of the learning success between the group using the generative model and the conventional learning. In other words, the proposed hypothesis in this research is accepted.

The explanation above is proven that the result of t-test calculation to the first experimental group is that $t_{\text{observed}}$ equals to 3.08, whereas $t_{0.995(52)}$ equals to 2.68. In fact, in comparation, the $t_{\text{observed}}$ is not in the interval from $-t_{0.995(52)}$ to $t_{0.995(52)}$ or 3.08 out of the interval from $-2.68$ to $2.68$. To the second experimental group, $t_{\text{observed}}$ is 2.75 but $t_{0.995(50)}$ is 2.68 showing that $t_{\text{observed}}$ is out of the interval from –
t_{0.995(50)} to t_{0.995(30)} or 2.75 out of the interval from −2.68 to 2.68. Also, to third experimental group, t_{obsv} is 3.46 but t_{0.995(55)} is 2.67 indicating that t_{obsv} is out of the interval from −t_{0.995(55)} to t_{0.995(55)} or 3.46 is out of the interval from −2.67 to 2.67. Because the t_{obsv} of the third groups is out of the interval from the −t_{table} to the t_{table}, there is the difference of students’ competence on reading comprehension between using the generative model and the conventional learning. To clarify our understanding of this finding, notice the following table, below:

<table>
<thead>
<tr>
<th>Num</th>
<th>Group</th>
<th>t_{obsv}</th>
<th>t_{table} Interval</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Experiment 1</td>
<td>3.08</td>
<td>−2.68 to 2.68</td>
<td>accepted</td>
</tr>
<tr>
<td>2.</td>
<td>Experiment 2</td>
<td>2.75</td>
<td>−2.68 to 2.68</td>
<td>accepted</td>
</tr>
<tr>
<td>3.</td>
<td>Experiment 3</td>
<td>3.46</td>
<td>−2.67 to 2.67</td>
<td>accepted</td>
</tr>
</tbody>
</table>

After the difference of learning success between the experimental group and the controlling one has been proven already, the means of score on the students’ competence of the both groups is compared with each other by purpose to know about which one of the both learning models is better for the reading comprehension. Based on the result of data analysis above, the means of score on the learning result with the use of generative model is higher than the learning result with the use of conventional model to all of the groups. Therefore, it is concluded that the generative learning model is better than the conventional one when it is used for the learning of reading comprehension. In other words, this generative model is successful if used for the learning of reading comprehension to the six-grader students of the elementary schools at South Sumedang.

**Students’ Response**

Data of the students’ perception on the reading-comprehension learning using the generative model is got from the questionnaires. Their answers to the questions can depict whether or not the students’ perception on the learning of reading comprehension is positive.

Respondents giving response on the learning of reading comprehension with the generative model were taken from the three groups. The number of the first experimental group is 27 students; the second experimental group is 26 students; and the third experimental group is 30 students. All of the respondents is 83 students. Based on the three groups in this research, the most respondents tend to have a positive perception on the learning. This interpretation is proven through the score of their response—categorized into *fair, positive, very positive* getting reach of 88% or 73 students. The rest is 10 students (12%) stating the negative and very negative perception on the learning of reading comprehension using the model. In addition, the average score of the students’ response is 75.1% in total and categorized into *positive enough*. Likewise, almost all student (88%) of the elementary schools in South
Sumedang has a *positive enough* perception on the learning using the generative model. In addition, it is also proven that the result of data analysis showing that 78.3% of the students is not under pressure; 77.1% of them is comfortable; and 85% of them is not anxious when attending the learning-teaching process. Such a result is also supported by those respondents stating that the use of generative learning model is helpful to their comprehension of the reading content, namely 77.1%. Next, 80.7% of the respondents state that the use of generative learning model gives them a good opportunity to ask if they do not understand something dealing with the material. Although the whole respondents’ perception is positive, 67.5% of the respondents has not had awareness of taking time to read and 59% of them feels exausted and confused when reading the scientific books.

Thus, it is necessary to encourage the students and make them aware of how important the reading activity is, especially to go against the rapid development of science and technology. All educator is claimed to think about exact ways of how they have high awareness of reading, since by keeping reading in continuous and regular manners they will be able to add vocabulary words and enlarge their thinking-insight. They, by consequence, will not be isolated in this competitive life. Some various synergy efforts as to improve our students’ reading interest need to be actualized by all side. They need to think the exact ways of enhancing students’ reading interest in high frequency and intensity. Colaboration among teachers, lecturers, educational, principals, government, students’ parents, librarians, and students should be realized to enhance a reader community. The teachers, in other words, are expected to construct good literacy, so that the students have awareness, will, attention, motivation to read. All side should go hand in hand to develop interest, habit, and capability of reading. Eventually they will be smart generation and be able to be the best leaders to this country.

**CONCLUSION AND SUGGESTION**

The generative learning is one of learning models that the teachers can select in the process of learning and teaching. It is important for them to conduct. The model can enhance activity, creativity, and thinking of students to solve the problem relating to the new concept they have to learn. The students’ competence of reading comprehension, through a series of learning activity focusing more on integration of the new concept to the concept the students already have before, is significantly increasing. When the learning-teaching process happens, the students are not passive receivers of various knowledge but active and work to construct the meaningful understanding of any information they get based on the knowledge they have already had.

A teacher, if he or she will apply the generative learning model for the reading learning, has to possess a skill of good questioning to arrouse his or her students’ thinking-creativity of solving problems and finding new concepts. In addition, he or she should have high patience to accept some various ideas and questions. In this case the teacher
cannot be in position of correcting and blaming their students’ opinion, until they themselves find a new concept they learnt. He or she has to have a capability of motivating them in order that they will be able to actively get involved in exploring and finding out new concepts they have already learnt.

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