Formative Assessment Models and Thinking Styles in Learning History

Patahuddin

History Education Department, Social Science Faculty, Universitas Negeri Makassar, Indonesia

dr.patahuddin@yahoo.com

Abstract. The objective of the research is to study the effect of the formative assessment models, the style of thinking, and the interaction of both variables on the students learning outcomes in History. The research was conducted at SMAN 2 and SMAN 5 Makassar in 2014/2015, by using experimental methods with samples of 84 students selected multi-stage random sampling. The findings of the research are as follows: (1) the learning outcomes of the students in History roommates are treated by the formative assessment models in each session are higher than those roommates are treated by the formative assessment based models after completing each competency, (2) the learning outcomes in the History of the students having divergent styles of thinking are higher than those of convergent style of thinking.

1. Introduction

In the learning process, learning history is often interpreted by students as learning to memorize the numbers, names of people, places or memorizing historical events. Sometimes students do not understand why have to learn history. In fact, to understand the history of guiding people understand the past in order to face the present and future.

To support the strategic function of the history of education, history needs to be prosecuted in a comprehensive learning management and study. Good learning of history is a lesson that makes students interested and able to love history, because history is a source of inspiration and aspiration for the present and face the future challenges. But history as one of the subjects at the high school, recently questioned its existence and widely criticized, as published in Republika [1] with the title "History Lesson Drab".

Complementing the description above, the reality on the ground shows that the learning outcomes in the history of the State High School students in the city of Makassar in the last two years have not been encouraging, even decreased. Based on the Report of Final Examination Results Analysis of National and School on Private and Public High School conducted by the Education Department of South Sulawesi [2] and [3] showed that the average yield of State High School students learn history in Makassar for the academic year 2012/2013 is equal to 7.41. As for the school year 2013/2014 amounted to 7.13. These results have not been satisfactory in addition also showed a decrease in the value of 0.28 from the previous year. Conditions of learning achievement such history like this need attention from various parties, especially the history teacher to seek and find a strategy to encourage students to study harder in order to achieve the better learning outcomes of history in the future.
In connection with the description above, to improve the quality of education generally and history in particular subjects, according Soedirjarto there are two factors that need attention are the quality of the learning process and evaluation system. A learning process will have quality if the students actively involved, and give result such learning experience that can internalized by students. Furthermore, the quality of learning will not appear without the support of a relevant and effective evaluation system.

An effort to improve the achievement of history learning outcomes in school in addition to pay attention to the factors mentioned earlier, one factor that is also definitely important is an understanding of the individual characteristics possessed by students. Students’ individuals are unique; two students are exactly not the same, each student different one with the other. Teachers must be aware of the different types of students. Each type of student is thinking in different ways. In order for the differences characteristic of the students can be served, in addition the use of vary teaching and learning methods or strategies, the one alternative that is worth trying is to provide vary formative assessment models as well.

Based on the previous descriptions to understand how far the model of formative assessment and student characteristics affect the history learning achievement it is necessary to conduct an experiment research. The formulation of the problem in this study were : (1) Are there any differences in learning outcomes between students who are given the history of formative assessment models each meeting with students who were given a model of formative assessment of each competency base? (2) Are there any differences in a history learning outcomes between students who have a tendency divergent thinking style with students who have a tendency to convergent thinking style?

2. Methods
The method used in this study is experimental. Variables consisted of independent variables and dependent variables. As for the independent variable is a model of formative assessment and student thinking style, while the dependent variable is the result of learning history. The population of the study was all students in Class XI of SMAN 2 and SMAN 5 Social Sciences in Makassar. The study sample was students IPS1 Class XI and Class XI IPS2 for students of SMAN 2 and Class XI and Class XI IPS1 IPS2 to SMAN 5 academic year 2014/2015. Based on sampling techniques done, namely random stages (multistage random sampling), samples obtained for this study is a group of 84 students consisting of 42 students who possess the tendency of divergent thinking styles and 42 students who have a tendency to convergent thinking style. Data collection techniques used was tests and questionnaires.

3. Literature Review
3.1. Understanding Learning
Learning is a complex activity. According Ma'mun [4] learning is a behavior changing process or personality based on practices or specific experiences. Another opinion states that learning is a change in behavior that is relatively permanent in a person towards knowledge or attitudes because of the experience. Furthermore, by Winkel [5] said learning is a mental activity/psychic that takes place in an active interaction with the environment that produces a change in understanding knowledge, skills, attitudes and values. In addition, according to Piaget [6,7] that learning occurs in the event the data processing of the active learning.

3.2. Understanding History Learning Outcomes
Learning outcomes are skills possessed by students after receiving experience in teaching and learning. In line with the above opinion, Briggs [8] argued that the result is all of the skills learned and results achieved by the students through the learning process that is expressed by numbers or values as measured by the non-test and the achievement test.
Powell was quoted as saying by Powell in Rowse [9] states that history is not just a story of a beautiful, instructive and exciting, but it is a branch of science. Furthermore, Carr [10] asserts that by studying the history of a person can interpret and understand the causes and consequences of an event that causes it to be more prudent.

3.3. Understanding Assessment
The term assessment according to Witherington and Burton [11] is essentially the same as the term evaluation. In summary Cronbach in Brikerrhoff [12] argued that assessment is an activity to provide information to make decisions. Furthermore Mahrens and Lehman as quoted by Djiwandono [13] said, evaluation is a process to plan, obtain and provide information that is needed to make the decision alternatives.

3.4. Definition of Formative Assessment
To determine whether these activities successfully achieved the goal or not it is necessary to have an evaluation. In the context of teaching and learning, Tessmer [14] stated that formative assessment is an activity performed on a stage when a section has been completed given the subject matter to students. Furthermore, Guba and Lincoln [15] emphasizes that the purpose of formative assessment is for improvement and refinement of what has been done.

3.5. Thinking Styles
The results of the study from psychology experts of human thought, each person has their own characteristics which is then termed of thinking style. According to Entwistle [16], thinking style refers to the definition of 'cognitive style' is used to differentiate option the tendency to think that is relatively fixed between those who generally have the same intellectual capabilities.

Related with thinking style, Woolfolk [17] found thinking styles show individual differences in response to a task, but it does not reflect the level of intelligence or form of a specific ability. In detail, according to Kogan cited by Crowl, Kaminsky, and looked Podell [18] thinking style relates to how an individual attention, receiving, remembering, and thinking that is the result of contiguity between cognition and personality. Furthermore Crowl, Kaminsky, and Podell [18] distinguish thinking style, those are divergent thinking styles and convergent thinking style. Divergent thinking style is the pattern of someone’s thinking who is more dominated by the functioning of the right hemisphere, whereas convergent thinking style is a person's pattern of thinking that is more dominated by the functioning of the left hemisphere.

4. Discussion
Based on data description of historical learning outcomes and the results of hypothesis testing as outlined above then consecutively discussion of the results of research are as follows:
1. The difference between the history learning outcomes of students who are given the formative assessment models each meeting with the students who are given formative assessment model of each basic competence.

The test results of the research hypothesis states that there are differences in history learning outcomes between students who are given formative assessment model each meeting with the students who are given formative assessment model of each basic competence is acceptable. In this case, the history learning outcomes of students were given a formative assessment models each meeting higher compared to the learning outcomes of students were given a formative assessment model each basic competence. This statement is reinforced by the results of the calculations show that the overall mean score for students’ history learning outcomes given the formative assessment model of every meeting is 35.98, higher than the mean score of the students who were given a model of formative assessment of each basic competence that is 33.93. Thus it can be interpreted that the teaching of history in schools, especially in Class XI IPS high school students, the use of formative assessment model each
meeting to the history learning outcomes is superior as compared with the use of formative assessment model each basic competence.

These results are supported by theoretical studies that the assessment is done as often as possible will encourage students’ habit to study. Similarly, the repetition will strengthen the relationship between stimulus and response. Thus the formative assessment is done as often as possible in addition to encouraging students’ habit to learn of regularly and continuously can also improve students’ memory. Repetition and review are the decisive stages in creating long-term memory. Related with the need to examination given to students as often as possible, there are at least two underlying law is the Jost law as stated by Reber (in [19]) and the Law of Exercise by Thorndike (in [20]).

Excellence of formative assessment model in history learning of each meeting also cannot be separated from the characteristics of the history subject itself. In this case the material is filled with lots of facts, the years events, place’ names, and the history actor’s names that are in addition needs to be understood also to be memorized by students. Therefore History subject material demanding to recall facts and events, it is necessary as soon as possible and as often repeated that the material is not quickly forgotten and can last a long time in the memory of students. Associated with memory, according to Rose and Nicholl [21] that basically never learned something today will be forgotten 70 % within 24 hours, if no special effort to remember. Thus the study would be better to not only listen to or look at, but also by doing. For this, the administration of the formative assessment models every meeting very relevant and support the history teaching.

In addition, according to the purposes and functions of formative assessment itself which give feedback to teachers in order to improve the learning process and implement remedial for students, then formative assessment can be effective if done continuously and as often as possible. For the formative assessment as often as possible as quickly as possible so teachers can discover the advantages and disadvantages of the learning process that is being implemented. Likewise, the student, with frequent formative assessment he got, he also can control himself all the time, whether efforts were made during this study is right or not.

Based on the discussion above, it can be argued that the provision of formative assessment model every meeting will form the habit of student to learn continuously, more enterprising and industrious, and planned to work on a regular basis, and can improve memory, resulting better in history learning outcomes. Thus the model of formative assessment of each meeting is more effective in improving student learning outcomes when compared with the historical model of formative assessment of each competency basic.

2. The difference of the history learning outcomes between students who have tendency of divergent thinking styles and convergent thinking style

The test results of the research hypothesis states that there are differences in history learning outcomes between students who have divergent thinking styles with students who have a tendency to convergent thinking style is acceptable. In this case the history learning outcomes of students who have a tendency to divergent thinking styles higher than students who have a tendency to convergent thinking style. This statement is reinforced by the results of the calculations show that overall mean score of history learning outcomes for students who have tendency divergent thinking styles that is 39.81 which is much higher than the mean scores of students who have a tendency to convergent thinking style.

Crowl, Kamisky and Podell [18] suggests that individuals who have the tendency of convergent thinking styles have characteristics such as focused thinking, logical, rational, empirics, analytical and systematic. History as a subject that studied the past, for students who have a tendency to convergent thinking style is considered as a subject which only contains stories and fairy tales. This is because history as a subject tend to contain things considered illogical and irrational, since many facts presented cannot be proven empirics as well as in the natural sciences. The appearance characteristics of subjects such as history that led to students who have a tendency to convergent thinking style was bored and not interested in learning. And even consider that history don’t need not be studied, because it does not have any benefits that can be used in today’s life and in the future. For the students
who have a tendency to convergent thinking style will not be able to achieve better learning outcomes in the subjects of history, because the characteristics of the subject of history is irrelevant to the characteristics of students who have a tendency to convergent thinking style.

For the high school level, according to Widja [22] essentially the study of history is not just a story or disclosure facts such as the order of years, the name of the perpetrator or the event, but also an attempt to provide an overview of the past to foster new ideas to face the present and future. Therefore, students in the study of history is not only required to memorize the numbers, names of people, places, or events row. But more important is the question how it happened, why it happened, and what meaning can be drawn from these events. Studying history needed not just the ability to memorize the course, but more important is the ability to think imaginatively, critically, creatively, and holistically. With these skills, students can imagine the events of the past then analyze it from various angles and viewpoints in order to gain a comprehensive understanding of the event. From a comprehensive understanding to an event, students can easily draw the meaning and benefits of the past in order to face the present and future.

Referring to the characteristics of historical subjects as noted above, then linked to the characteristics of students who have a tendency to divergent thinking styles as stated by DePorter and Hernacki [23], which captures something holistic, imaginative, creative, giving many possible responses, are the thinking styles that is needed very much in history teaching. Instead of thinking forms, systematic, linear, focused on only one answer, and tend to be less flexible, which is characteristic of convergent thinking style, seems to be lacking in accordance with the teaching of history. Thus for students who have a tendency to divergent thinking style will be able to achieve the learning outcomes history better than students who have a tendency to convergent thinking style.

5. Conclusion

Based on the findings and discussion, the research conclusions are as follows:

Overall students’ history learning outcomes were given formative assessment models each meeting higher compared with the student who’s given the formative assessment model each basic competence.

Overall learning outcomes of students who have a history of divergent thinking style tendency are higher than the historical learning outcomes of students who have a tendency to convergent thinking style.

The influence of the formative assessment model to the history learning outcomes depend on students' thinking styles. In this case, that the students’ achievement of history learning outcomes are influenced by the formative assessment model based on the tendency of the thinking styles of the students.

References

[1] _______. 2001 “Pelajaran Sejarah Menjemukan”, Harian Republika, 5 Nopember 2001.
[2] Anon. 2012/2013. Laporan Analisis Hasil Ujian Akhir Nasional & Sekolah SMA Negeri dan Swasta. Makassar: Dinas Pendidikan Propinsi Sulawesi Selatan.
[3] _______. 2013/2014. Laporan Analisis Hasil Ujian Akhir Nasional & Sekolah SMA Negeri dan Swasta. Makassar: Dinas Pendidikan Propinsi Sulawesi Selatan.
[4] Ma'mun, H. Abin Syamsuddin. 2004. Psikologi Kependidikan. Bandung: Remaja Rosda karya.
[5] Winkel, W. S. 2004. Psikologi Pengajaran. Yogyakarta: Media Abadi.
[6] Piaget, Jean. 1988. Antara Tindakan dan Pikiran. terjemahan Agus Cremers. Jakarta: PT. Gramedia.
[7] Hasan, S. Hamid. 1996. Pendidikan Ilmu Sosial. Jakarta: Direktorat Jenderal Pendidikan Tinggi Depdikbud.
[8] Briggs, Leslie J. 1979. (ed). Instructional Design Principles and Applications. Englewood Cliffs, New Jersey: Prentice Hall Inc.
[9] Rowse, A.L. 1946. The Use of History. London: Hodder & Stoughton Limited.
[10] Carr, E.H. 1972. What is History? New York: Alfred A. Knopf.
[11] Witherington, H. C., W. H. Burton., Bapemsi. 1986. Teknik-Teknik Belajar dan Mengajar. Bandung: Jemmars.
[12] Brikerhoff, R. et al. 1983. Program Evaluation A Practitioner Guide For trainers and Educators. Boston: Kluver Nijhoff.
[13] Djiwandono, Sri Esti Wuryani. 2002. Teknik Teknik Belajar dan Mengajar. Bandung: Jemmars.
[14] Tessmer, Martin. 1995. Planning and Conducting Formative Evaluation. London: Kogan Page Limited.
[15] Guba, Egon G. & Yvonna S. Lincoln. 1988. Effective Evaluation. San Francisco: Jossey-Bass Publishers.
[16] Entwistle, Noel. 1981. Style of Learning and Teaching. Great Britain: John Wiley & Sons Ltd.
[17] Woolfolk, A. E. 1993. Educational Psychology. Needham Height, MA: Allyn & Bacon.
[18] Crowl, T. K., Sally Kaminsky & David Podell. 1997. Educational Psychology: Windows on Teaching. Dubuque, IA: Times Mirror Higher Education Group.
[19] Syah, Muhibbin. 2001. Psikologi Pendidikan dengan Pendekatan Baru. Bandung: PT. Remaja Rosdakarya.
[20] Suryabrata, Sumadi. 2002. Psikologi Pendidikan. Jakarta: PT. RajaGrafindo Persada.
[21] Rose, Colin., & Malcolm J. Nicholl. 2002. Cara Belajar Cepat Abad XXI. Terj. Dedy Ahimsa, Bandung: Yayasan Nuansa Cendikia.
[22] Widja, I Gde. 2002. Menuju Wajah Baru Pendidikan Sejarah. Yogyakarta: Lappera Pustaka Utama.
[23] DePorter, Bobbi & Mike Hernacki. 2003. Quantum Learning; Membiasakan Belajar Nyaman dan Menyenangkan. Terj. Alwiyah Abdurrahman. Bandung: Kaifa.
[24] Mehrens, W. A. & I. J. Leaman. 1978. Measurement and Evaluation in Education and Psychology. 2nd ed. New York: Holt Rinehart and Winston.