

The Application of Portfolio-Based Assessments to Improve Students' Problem Solving

Encep Supriatna

Univeristas Pendidikan Indonesia, Serang Campus
Indonesia University of Education, Bandung, West Java, Indonesia
Email: cepsup1976@gmail.com

Abstract. One of the objectives of Social Studies as Improve Citizenship transmission, and studying as reflective inquiry, developing student behavior, and the primary purposes of social studies to help young people develop the ability to make informed and reasoned decision for public good citizens of culturally diverse, (NCSS, 1994).. Another approach that can be used by lecturer is giving assignment or project to students. From the product that produced by the students and their appearance in the classroom, it can be seen which group the process of making the product involves all members of the group and not involves all members of the group. One of the social skill in social studies which can be developed in the lecture process is by using portfolio-based assessment that can vary in form, one of the advantage of a portfolio assessment is the lecturer can assess the students' overall abilities. On lectures of social studies, lecturer assigns students to make educational props for basic education in accordance with predetermined theme. After finishing the product, every group is asked to present their work to be commented by other groups, while using portfolio assesment the student can reflective inquiry many values and using it's for decision making for the public policy

Keywords: Portfolio Assessment, Problem Solving, Students of Basic Education Teacher Education Program

Correspondence. cepsup1976@gmail.com

Article History. Received January 2018, Received in revised March 2018, Accepted June 2018

©2018. International Journal Pedagogy of Social Studies. Department of Social Studies Education

A. INTRODUCTION

Empowerment of learning related to environmental arrangement and productive learning climate provides opportunities for learners to develop the ability of thinking and appreciation of the value. Cultivating learning in relation to the development of thinking and value in socio-cultural education, is considered strategic in improving quality, because this aspect is less attention to be developed. Education that developed on a strict orientation to goals often overlook the aspect of learning process, the weaknesses of learning culture in the context of the development of thought and value are underestimated. However, with the 2013 curriculum by using scientific approach this weakness can be a little overcome. In this approach, students are more active in the learning process and it more emphasize on the process than the learning outcome with the steps observing, asking questions, analyzing, summarizing, and making students' networking, students are required to be active in the learning process. In addition, with assessment by using authentic assessment thus teachers based their assessment of portfolio and also students' performance in the learning process and it is not merely the cognitive aspect, so students learning outcomes will be more accurate and objective. (Suwarma, 2007:840, Supriatna, 2017:2-3).

Education has function to convey, forward to, or transmit the culture, including the values of the ancestors for younger generation. In this function, school is conservative and strive to maintain the status quo for the sake of political stability, and national unity. Besides, school also helps to educate younger generation to live and adjust to the rapid changes which resulted by development of science and technology. In this case, school is the "*agent of change*", the institution of change. School has transformative function. At least school must be able to follow the pace of times development so that nation will not miss in the ability and knowledge

compared with other nations. Therefore, curriculum must always undergo change and renewal. In technology advance and science, school plays important role as "*agent of change*" to bring social changes. However, in social norms, such as family structure, religion, philosophy of nations, school tends to retain old ones and thereby prevent the occurrence of change that can threaten unity of the nation (Supriatna, 2017:3).

B. Literature Review

One of the efforts that can be done by lecturers in the lecture process to explore students' social skills is the use of learning outcomes by prioritizing task in the form of *project based learning*. With this assignment accompanied by the rubric will be able to explore various capabilities of students, especially from the affective and psychomotor aspects, such as the ability of cooperation, effective behavior, communication, responses to problems, tolerance, respect differences of opinion, sincerity, and honesty. In this study, the author used a portfolio-based assessment to explore students' various abilities. According to Fajar (2009:47) portfolio comes from the English word portfolio which means documents or letters. Portfolio can also be interpreted as a collection of valuable papers from a particular job. As for portfolio understanding here is a collection of student work with a particular purpose and integrated that are selected according to specified guideline. These guidelines vary in nature depending on the course and purpose of the portfolio assessment. Usually portfolio is chosen work of a student, but in this learning model the portfolio contains selected works from one class of students as a whole working cooperatively, selecting, discussing, finding data, processing and analyzing data, and looking for solutions to a problem under study (Siti Komariah & Wilodari, 2015, 456).

As a learning model, the portfolio is adapted from the model, "*we the People* . .

. *Project citizen*”, which developed by Center Civic Education (CCE) which located in Calabas, United States (Fajar, 2009:46, Siti Komariah, 2015:456). This learning model is generic pedagogic, until now adapted by 50 countries including Indonesia, and the material is adapted to the situation and condition of each country. Portfolio can also be interpreted as a collection of student work as a result of learning. In addition, portfolio is very useful in providing information on the ability and understanding of students to the course which given, also can show the achievement or improvement which obtained by students from learning process (Stiggins, 1994:20; Malihah, et.al., 2009:9, Komariah et.al, 2015:456).

The steps of portfolio-based learning according to Budimansyah (2002; Malihah et.al 2009:9-17, Siti Komariah, et. al., 2015:456) including activities as follows:

- (1) Identifying the problem
Students are formed a number of groups, and given the task or problem in accordance with certain criteria to be completed based on the rubric that has been set.
- (2) Selecting a problem for class review
Each group that has established the problem, propose the problem to the class group to be selected based on class approval.
- (3) Collecting some information about the problem to be studied in class.
- (4) Developing class portfolio
In developing this class portfolio, students are divided into groups, determine the problem, examine the problem, and its alternative solution, the group proposes the action planning, displays the study graphically in the form of maps, pictures, photos, and identifies source of information.
- (5) Show case portfolio, as for the steps are preparation, opening, presentation, invitation response, collecting jury.
- (6) Portfolio assessment criteria, including completeness, clarity of information,

graphic data support, documentation, and argumentation.

C. METHOD

This research tries to provide an overview of the “The Application of Portfolio Based Assessment” to improve students’ social skills on social, moral, religious, and emotional development course of early childhood, which is a case study of students in Early Child Hood Teacher Education Program, Indonesia University of Education, Serang Campus. To achieve understanding of the phenomena under study, I used a qualitative approach. According Nasution (1992:5), qualitative research essentially observes people in their environment, interact with them, and seeks to understand their language as well as their interpretation of the world.

Lincoln and Guba (1985:39), prefer to use the term *Naturalistic Inquiry* because the prominent feature of this study is the way of observation and data collection is done in natural setting, in other word without manipulating the subject studied (as it is).

Research by using a qualitative approach is a study that departs from the philosophy of constructivism, which sees the reality that has plural dimensional, interactive, and demanding interpretative based on social experience. “*Reality is multilayer, interactive and a shared social experience interpretation by individuals*” (McMillan and Schumacker, 2001, Supriatna: 2014). Qualitative research views reality as a social construction, an individual or a group attracting or giving meaning to a reality by constructing it. People form construction to understand the reality, and he understands construction as a system of views, perceptions, or beliefs.

1. Data Collection Technique

Data collection techniques which used to obtain research data required are: (1) observation which conducted by the researcher on things, phenomena, or events

that are typical to the object of research related to this study of research. Data are obtained because there is a researcher in the field by conducting direct observation, (2) interviews are conversations with direct observation (Moleong 2007:35); and (3) Documentation studies are conducted to disclose administrative data and documented activities data.

2. Data Analysis Techniques

After the research data collected, the next step researcher performs data analysis. Analysis is done by examining every phenomenon or event as a whole, as well as to the parts that make up the phenomenon Miles dan Huberman (1994: 136) explain that:

“Doing an analysis means conducting a study to understand the structure of a phenomenon that applies in the field. Analysis is carried out by examining the phenomena or events as a whole, as well as on the parts that make up the phenomena and their related relationship”.

The data analysis technique by the researcher is Miles and Huberman Model Analysis (1994:139) is as follows: “Qualitative research data analysis can be done through the following steps: (1) data reduction; (2) data presentation; (3) take the conclusion then verified”.

3. Data Validity Technique

In order this research can be accounted scientifically, so the researcher make effort in form of examination of validity of research data. According to Moleong (2007:320)

“the meaning of the validity of the data is that every circumstance must satisfy: (a) demonstrate the right value, (b) provide a basis for it to be applied, and (c) obtain an outside decision that can be made about the consistency of its procedure and neutrality of findings and decisions”.

Based on the statement above, it can be concluded that to produce qualitative

research that can accounted for, thus it must be examination of data validity so that the research produces the right value and can be applied. Related to the research that conducted by the researcher, hence the researcher must carry out examination of data validity by (1) credibility, (2)defendability, (3)confirmability, and (4)transferability.

C. RESULTS AND DISCUSSION

Based on the curriculum of Early Childhood Teacher Education Program, Indonesia University of Education, Serang Campus, compulsory courses must be taken by all students of Early Childhood Teacher Education Program in order to students have knowledge and insights relating to the concept and theory of knowledge on the cognitive, affective, and psychomotor development of students in terms of social, emotional, moral, and religious aspects of human status as a multidimensional creature.

Students who take this course in Early Childhood Teacher Education Program can have knowledge and insights relating to the concept and theory of knowledge on the cognitive, affective, and psychomotor development of students in terms of social, emotional, moral, and religious aspects of human status as a multidimensional creature which requires early treatment for development of potential, interests, talents, and humanitarian instincts which tend to virtue (piety) and negative potential can be minimized in such a way and especially for the early childhood educators in order to be able to deliver pre-school children ready to enter primary school.

The characteristics of early childhood emotional, social, religious and moral development course not only fill the activities of memorizing concept and data as well as facts, but also ability to solve the problems. Therefore, at the end of lecture process, the lecturer does not carry out a paper based final examination that usually only tests the cognitive ability, but the

evaluation system is designed by using portfolio assessment that is the assignment to students in each group by making project in the form of educational props for children. It is intended in order to students are accustomed to cooperation, high level thinking, sharpen creativity, in their respective groups. In each group is divided by 7 groups, each group consists of 5 to 7 students. Educative props which made by students should refer to the major themes of lectures between developments of: religious, emotional, moral, and social. The shape can vary such as Zuma Box, Pop Up, there are students who making video, there is *Mind Map*, *Scrap Book*, Archery Media (board plan of learning), Mind Map Rise, and MP3 Ps Book.

After educational props were created for one month, at the end of semester test, the educational props are presented in front of the class by each group with maximum duration 15 minutes. Continued by asking-answer session related to educational props. The instruments were used during presentation of educational props are as follows:

No.	Rated Aspect				
Group Member's Name	Cooperation, Compactness, Empowerment, Clarity in presentation	Systematic, Neatness, Attractive and Aesthetic	Media contains concepts and theories	Meet ABCD aspect (<i>Audience, Behavior, Condition, Degree</i>)	Score
1.....					
2.....					
3.....					
4. etc...					
Total					

Each component is given a maximum score of 25

Scale Assessment: 10-100

Interval Class:

1. 75-100= A
2. 50-74 = B
3. 25-49 = C
4. 10-24 = D

Table 1.1
The Score of Presentation and Portfolio from Class A

Educational Props	Group	Cooperation, Compactness, Empowerment, Clarity in presentation	Systematic, Neatness, Attractive and Aesthetic	Media contains concepts and theories	Meet ABCD aspect (<i>Audience, Behavior, Condition, Degree</i>)	Score
Smart Book	1	18	22	20	18	78
Fun Visitor	2	20	18	20	17	75
Culture TV	3	18	20	20	18	76
Magical Socks	4	18	20	20	19	77
Smart Monopoly	5	18	20	20	20	78

Lab yri nth (Lo okin g for trac es)	6	17	17	18	16	6 8
Sma rt Clo ck	7	20	20	18	17	7 5
Mea n Scor e						7 5

Table 1.1
The Score of Presentation and Portfolio from Class B

Educational Prop s	G ro u p	Coop eratio n, Com pactn ess, Emp ower ment, Clarit y in prese ntatio n	Syst ema tic, Nea tnes s, Attr acti ve and Aes theti c	Me dia co nta ins co nc ept s and the ori es	Me et AB CD asp ect (<i>Au die nce, Beh avi or, Co ndit ion, De gre e</i>)	S c or e
Sma rt Pock et	1	18	17	20	18	7 3
Zum a Box	2	21	18	20	17	7 6

Card of ablut ion and pray er	3	18	20	18	18	7 4
Snac k and Ladd er	4	18	17	20	18	7 3
Expl ore Zone	5	17	15	18	20	7 0
Langu age Dev elop ment (Sm art Tree)	6	18	20	20	18	7 6
Pop Up	7	20	20	20	18	7 8
Mea n Scor e						7 4

Table 1.3
Comparison of Final Examination Result by Using Portfolio Assessment from Class A and B

N O	Clas s A	Gro up	Low er Scor e	Upp er Scor e	Me an Scor e	Not e
	Clas s A	A	68	78	75	Ver y Go od
	Clas s A	B	70	78	74	Go od

This is the example of product from the student, picture 1.



Source: Research documentation 2017

Based on the table above, we can see that the mean score of Class A is bigger than Class B, the mean score of Class A is A which means very good category. Whereas, mean score of Class B is 74 which means good category. The difference is very small that only one point due to the average ability of the two parallel classes is still balanced. Distribution of scores of each component seems to be evenly distributed from the aspect of cooperation, systematics, concept and theory as well as aspects of ABCD there is no dominant either in Class A or B, this indicates that each group has a deficiency and varied advantages of each component. Except the group that has highest score in Class A and B the mean score in each component is 20. The highest score in class 3 A achieved by group 7 that makes Pop Us Props with a core of 78. Meanwhile, in Class 3 B which makes educative props in form of Smart Monopoly get score 78. The above scores indicate that the use of portfolio-based assessment in early childhood emotional, social, religious and moral development course is proven effective in improving students' social skills, this is in accordance with the opinion of Stiggins (1991) which states that the portfolio is very useful in providing information about the ability and understanding of students to the given course, it also can show achievement or improvement obtained by students from learning process, as well as that portfolio in accordance with its definition is a document

which selected from a number of student works in a certain period of time, it can drill the creativity of students in finding ideas that are creative, critical, and innovative based on existing materials around them.

Picture 2. Portfolio product for student



Source: Research documentation 2017

D. CONCLUSION

Based on the above explanation that the application of portfolio-based assessment to improve students' social skills in early childhood social, emotional, religious and moral development course from observation result during the presentation showed that almost all members performed maximally. This can be seen from the scores which obtained by Class 3 A and 3 B, the difference is not too big. This shows that students' social skills in the form of cooperation, tolerance, communication, respect for others, honesty and tenacity can be well demonstrated by all groups. As well as creativity in making educational props, almost all groups can make in accordance with established criteria such as good, interesting, beautiful, and contains a philosophy of education is high, easy to use and also understood by students of Early Childhood Education program. As well as class 3 A and 3 B achievement scores that differ by only one number, it indicates that both classes are equally good in social skills.

REFERENCES

Bungin, B. (2003). *Analisis Data Penelitian Kualitatif*. Jakarta: Rajagrafindo Persada.

- Budimansyah, D. (2002). *Model Pembelajaran dan Penilaian Portofolio*, Bandung: Genesindo.
- Fajar, A. (2009). *Portofolio dalam Pembelajaran IPS*. Bandung: Remaja Rosdakarya.
- Guba, E.G. & Lincoln, Y. S.,(1985). *Naturalistic Inquiry*. California, Beverly Hills: Sage Publications.
- Huberman A.M. & Miles M.B. (1994). *Qualitative Data Analysis*. Second Edition. California SAGE Publications.
- Komariah, S et.al (2015). *Efektifitas Model Pembelajaran Portofolio dalam mata Kuliah Belajar dan pembelajaran Sosiologi untuk Menumbuhkan Kepedulian Sosial Mahasiswa Prodi Pendidikan Sosiologi UPI*. Prosiding Konaspipsi III 11-12 Agustus 2015 diterbitkan FPIPS UPI.
- Malihah, E. et.al (2009). *Model Portofolio pada Pembelajaran PKn untuk meningkatkan nilai-nilai Patriotisme dan Nasionalisme Mahasiswa PTN/PTS di Kota Bandung*: Penelitian Fundamental, Tidak dipublikasikan.
- Moleong, L. (2007). *Metodologi Penelitian Kualitatif: Edisi Revisi*. Bandung: PT. Remaja Rosdakarya.
- Nasution, S (1992). *Metode Penelitian Naturalistik Kualitatif*, Bandung: Tarsito.
- Stiggins, R.J. (1991). *Student-Centered Classroom Assessment*, New York: MacMillan Cottage, Publishing Company.
- Supriatna, (2017). *Penerapan Pembelajaran IPS Melalui Model Nature and Nurture Berbasis Trisila (Tabu, Teuwasa, pamali) untuk Mengembangkan Keterampilan Sosial Siswa di SMP*. (Studi Naturalistik Nilai-nilai Tabu, Teuwasa dan Pamali di Baduy Dalam Pembelajaran IPS di SMP). Makalah untuk Buku Kahmi Forever Doktor, Tahun 2017 Penerbit IPB Press.
- Supriatna, E. (2012). *Pembelajaran Sejarah Berbasis Religi dan Budaya di Kawasan Banten Lama*. Bandung: Disertasi UPI tidak diterbitkan.
- Suwarma, A.M. (2007). *Pendidikan Ilmu Pengetahuan Sosial*; dalam Ilmu dan Aplikasi Pendidikan. Bandung Pedagogiana, Press.

Document:

Semester Instruction Planning, Early Childhood Education Program Academic Year 2016/2017, Odd Semester.