ISSN: 2476-9533

Vol. 2, October 2016

PROCEEDING

International Seminar on Science Education

Nurturing Innovative and Highly Literate Generation through Science Education

Graduate School
Yogyakarta State University

Semen Sido Mukti Motif of Yogyakarta Batik

Tugu Yogyakarta

October 29th 2016

Proceeding of the International Seminar on Science Education

9 772476 953012

ISSN : 2476-9533
The 2nd International Seminar on Science Education (ISSE)
Graduate School-Yogyakarta State University
Volume 2, October 2016

MONITORING CARD TO EXERCISE SELF ASSESSMENT SKILL FOR STUDENTS

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***Abstract*—** The aims of this research were producing a valid monitoring card and applying monitoring card to exercise self assessment skill for students. The subjects were student of Mathematics Education Department on STKIP Bina Insan Mandiri selected by random sampling. This research was developing used 4D model with data collecting technique used tests and observation. Data was analyzed by descriptive qualitative. The result of this research: 1) the validation scores were in the range 71.00 - 85.00 with a valid category, 2) the score of the students on cognitive, affective, and psychomotor has been increased. Based on those findings, it could be concluded that the monitoring card can be used to exercice self assessment skill for students.

Keywords: *Monitoring Card, Self Assessment*

I. INTRODUCTION

Assessment is one of the important things in learning process. Bransford, Brown, and Cocking stated that assessment is one of the effective learning component because it can monitor the process, progress, and improve of students learning [1]. Continuous assessment can help teachers determine the level of students abilities so that they can design a learning model that suitable with their characters. But as a paradigm changing in education, which emphasizes student centered learning, assessment process still use teacher center learning. Students have not been trusted to do an assessment for their performance. From the observation from five PTS in Surabaya, only 1 PTS ever apply self assessment to their students. It caused several things such as the ability of the students who has considered less in assessment. Besides that, unavailable of assessment rubric that used as a guide for students in assessing their performance as a cause. Even though self assessment based on the research by Farisi concluded that Self Assessment Students (ADS) has generally shown effective results to develop of character in a variety of contexts, fields of study, institutions, countries, and levels of education [2]. Moreover, it supported by intensive practical exercises, an adequate understanding of the criteria, internalization purpose, clarity of criteria, and the seriousness of students. In addition, research by Syahrul concluded that self assessment is a valid, effective, and practical assessment models, to assess the competence of vocational students in the learning process [3]. From those results it can be seen that self assessment skills need to be exercise to the student. With these skills can exercise students to be honest in assessing so can develop their high thinking skills. Besides that, this models make them more responsible for their learning progress and develop reflective thinking skills that are needed in the concept of longlife learning. Based on the above, we make a research to exercise self assessment skills for students using monitoring card. Monitoring card contains of many aspects that must be assessed by students about their performance. In each of that aspects are given an assessment rubric that clearly and measurable. It was expected that the result of self assessment from students suitable with their performance. The problems were taken in this research include: 1) How did the validation results of monitoring card to exercise self assessment skills for students?; 2) How did the application of monitoring card to exercise self assessment skills for students?

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II. RESEARCH METHOD

This research is developing research to develop a monitoring card to exercise self assessment skills for students. The subjects were students of Mathematics Education Department on STKIP Bina Insan Mandiri. Research was conducted in the odd semester of 2015/2016 on the Basic Physics course with subject selected by random sampling. Development models used 4D model, which was developed by Thiagarajan, which includes define, design, develop, and disseminate [4]. Research design used One Shot Case Study Design with one class without comparison and without any preliminary tests. This research design is described as follows

$X \longrightarrow O_1$ (5)

Information:

X = Learning activities by lecturers to students on the Physics matter

O_1 = Tests given to students to obtain scores then the students assess themselves using monitoring card that developed by researchers

Data collecting technique by observation and tests. The results were analyzed descriptively qualitative.

III. RESULT AND DISCUSSION

1. *Validation*

Monitoring card validation performed by 3 experts on assessment used validation instrument that developed by researcher. The experts assess draft of monitoring card and its rubric. They also assess suitability between draft with learning steps and development theory of instrument. Then the scores converted using a Likert scale [6] and get the results as follows:

TABEL 1. THE RESULT OF MONITORING CARD VALIDITY

Validators	Scores	Categories
Expert 1	82	Valid
Expert 2	84	Valid
Expert 3	85	Valid

Based on the table were obtained score in the range of 71.00 - 85.00 with a valid category. This shows that three experts agree that monitoring card can be used to exercise self assessment skill for students. Matondang said that a valid measuring instrument indicates that tools can measure what is to be measured accurately [7]. It means, monitoring cards that have been declared valid to used by the experts can be used to exercise students self assessment skill. However, the scores given by expert on that scale means that monitoring card may be used with some revisions. Therefore, there are several components in rubrics that given feedback by experts to be repaired before being used in the classroom.

2. *Implementation of Monitoring Card on Learning*

After the subject matter was delivered to students and they were given a task to do, they assess their performance using monitoring card that developed by researchers. The results as follows:

Subjects I

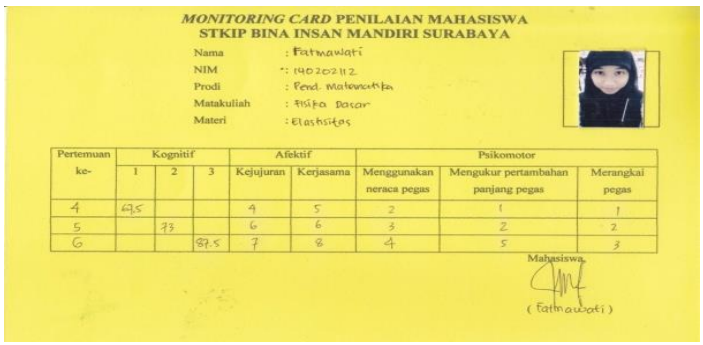

FIGURE 1. MONITORING CARD OF SUBJECT II

ISSN : 2476-9533
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Based on the results of card monitoring used at the first meeting, the cognitive domain on the subject I given score 67.5, in the second meeting scored 73, and the third meeting scored 87.5. This case shows that student self assessment skills increase in the cognitive domain by 3.9% - 9%. While in the affective domain, we focus on the honesty and cooperative characters, at the first meeting to the third meeting there was an increase by 7% - 10%. This indicates that students have been able to assess themselves in the affective domain. As well as in the psychomotor domain. From three categories that observed such as the skill to use a spring balance, the skill to measure the length of the spring, and the skill to string of spring balance, subject I have an increase by 14% - 43% from the first meeting, second, and third. It is also an indication that the student has been able to assess themselves on psychomotor domain.

Subject II

MONITORING CARD PENILAIAN MAHASISWA
STKIP BINA INSAN MANDIRI SURABAYA

Nama : Intan Aulia Kolbi
NIM : 140202147
Prodi : Pendidikan Matematika
Matakuliah : Fisika Dasar
Materi : Elastisitas

Pertemuan ke-	Kognitif			Afektif		Psikomotor		
	1	2	3	Kejujuran	Kerjasama	Menggunakan neraca pegas	Mengukur pertambahan panjang pegas	Merangkai pegas
4	68,5			5	6	2	1	1
5		78,5		7	8	3	3	2
6			84	8	9	4	5	3

Mahasiswa

(Intan Aulia)

FIGURE 2. MONITORING CARD OF SUBJECT II

Based on the results of card monitoring use on the subject II, the cognitive domain in the first, second, and third meeting gets scores of 68.5, 78.5, and 84. This indicates that students self-assessment skills increse on the cognitive domain by 6.8%-3.4%. While in the affective domain to the character of honesty and cooperation, at the first until third meeting there was an increase by 14%-16%. This indicates that the students have been able assess themselves in the affective domain. As well as in the psychomotor domain. From three categories that observed such as the skill to use a spring balance, the skill to measure the length of the spring, and the skill to string of spring balance, subject II have an increase by 14% - 50% from the first meeting, second, and third. It is also an indication that the student has been able to assess themselves on psychomotor.

Based on two examples above can be concluded that the students are able to assess their own performance using a monitoring card that developed by researchers. This is according with research of Kartono which concluded that the results of self assessment is very profitable for student, because it can be used to improve their learning process so that their learning outcomes can be optimized [8]. Students that assess their own performance can know their deficiencies in the learning process. Moreover, with skill of assess their performance, they can know the raw assessment standards. Therefore they can apply the strategies that need to do to repair it. Otaya mentions in his research that to improve the characters of honest in assessing of strengths and weaknesses learning is through self assessment [9]. So with other words that student self assessment skills can also exercise the characters of honesty. Honesty is one of the positive attitude that should be owned by the students. Honest to recognize the weaknesses in learning will increase student motivation to repair it. When motivation appear on students so the learning interest will grow and develop so that they will absorb the subject matter easly.

IV. CONCLUSION

From the research can obtain some conclusions as follows:

1. The results of validation monitoring card get scores in the range of 71.00 - 85.00 with valid category
2. The implementation of monitoring cards can be used to exercise self assessment skills for students in cognitive, affective, and psychomotor.

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Yang bertanda tangan dibawah ini, Ketua Sekolah Tinggi Keguruan dan Ilmu Pendidikan Bina Insan Mandiri (STKIP BIM) Surabaya menugaskan kepada:

Nama : **Wulan Trisnawaty, M.Pd.**
Jabatan : Dosen Tetap STKIP Bina Insan Mandiri Surabaya

Guna mengikuti International Seminar on Science Education sebagai Pemakalah yang diselenggarakan oleh Yogyakarta State University pada:

Hari : Sabtu
Tanggal : 29 Oktober 2016
Tempat : Universitas Negeri yogyakarta

Demikian surat tugas ini dibuat untuk dilaksanakan dengan sebaik-baiknya.

Surabaya, 6 Oktober 2016
Ketua,

Prof. Dr. H. Muhari

Ketua Panitia

Firdiawan, S.Pd

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