The implementation of assessment model based on character building to improve students’ discipline and achievement

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The implementation of assessment model based on character building to improve students’ discipline and achievement

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Abstract. The purpose of this research was to investigate the effect of implementing the assessment model based on character building to improve discipline and student’s achievement. Assessment model based on character building includes three components, which are the behaviour of students, the efforts, and student’s achievement. This assessment model based on the character building is implemented in science philosophy and educational assessment courses, in Graduate Program of Educational Technology Department, Educational Faculty, Universitas Negeri Surabaya. This research used control group pre-test and post-test design. Data collection method used in this research were observation and test. The observation was used to collect the data about the disciplines of the student in the instructional process, while the test was used to collect the data about student’s achievement. Moreover, the study applied t-test to the analysis of data. The result of this research showed that assessment model based on character building improved discipline and student’s achievement.

1. Introduction

In the National Education Day anniversary 2010, the President of the Republic of Indonesia launched the implementation of the National Policy for Character Building. Especially in National Education Departement, its main focus is on the school (students, teachers, education personnel), family, community, and the environment. Implementation of the National Policy for National Character Building is done gradually and continuously. In the future, the Ministry of National Education Departement will include character building through the strengthening of the curriculum from kindergarten to university as part of strengthening the national education system. The implementation of character building will be integrated into existing subjects matter, co-curricular and extracurricular activities, and involves the participation of the environment, families, and communities. [6].

The Minister of Education and Culture of Indonesia made a policy on Curriculum 2013. One of the principles in this curriculum is developed a balance between the development of spiritual and social attitudes, curiosity, creativity, cooperation with intellectual and psychomotor abilities. The objective of instructional in this curriculum includes attitudes, knowledge, and skills.

Anderson states the aspects that need to be assessed teachers on learners in the learning process are the behaviour of the learning process, the efforts of students to master competencies, and the achievements of the students [3]. Behavior in the learning process includes the attitude and actions of students against peers and teachers, particularly the attitude and actions related to the values in the course material and activities in the learning process. Efforts of students refer to the seriousness and
discipline of students in the instructional process. Discipline and the seriousness associated with affective and psychomotor aspects of the learning process. Learner achievements of learners meant mastery level of competency to be achieved.

Koesoema Doni suggested that the criteria of assessment in the education based on character building, namely: the quantity of attendance, punctuality collect of the task, the number of violence behavior, the participation of student in program of cooperation between schools, student involvement in drugs, academic achievement, and non-academic culture [5].

Based on expert opinions in the paragraph before can be concluded that assessment model based on character building includes three components. Firstly, behaviour in the learning process includes the attitudes and behaviour of peers and teachers. Attitudes and behaviour in this component refer to the values in the material and learning activities. In the context of educational technology, the transformation of values can go through the material presented to the students or through learning activities. Secondly, student effort and it is referred to the seriousness and discipline of a student in the instructional participation. This component includes the following aspects: the presence of learning or lecturing process, the punctuality in instructional participation and collect the assignment, the frequency and quality of question, the frequency and quality of the opinion, the frequencies of consultation out of hours lectures in order enrichment, creativity, reasoning that shown in the activities or work-related lectures. Lastly, the achievement of students, including academic and non-academic.

The implementation of this evaluation model needs a punctuality and discipline both lecturer and student. The lecturer must be discipline to record the student’s activity and the student must be punctual and active in the lectures process. The punctuality is assessed in this evaluation model is attendance in the lecture and collect the assignment. In addition, the student must also be active in the learning process because of their activities in the learning process also be assessed. The activity in the learning process comprises the frequency and quality of the question, the frequency, and quality of the opinion, the frequencies of consultation out of hours lectures in order enrichment, creativity, reasoning that shown in the activities or work-related lectures.

Finally, it is concluded that the discipline is a condition that is created and formed through a process of a series of behaviours that indicate the values of obedience, loyalty, regularity and or orderliness. At the beginning, discipline is a burden for their obligation to act in accordance with the rules. However, when the regulation went right to their soul the discipline of behaviour is no longer perceived as a burden, but on the contrary, would weigh on him when he did not act in accordance with the rules. The assessment model regulates any behaviour of a college student, from attendance at the lecture, activity in lectures, and the time of the collect assignment. Relevance to the discipline process, at the beginning the evaluation model is certainly burdening but when the regulation in the evaluation model went right to student’s soul they are no longer a burden. Since all activities of the students assessed, so it is concluded that the implementation of this evaluation model can improve student discipline.

2. Research Method

This study used ADDIE model and the stages are Analysis, Design, Development, Implementation, and Evaluation. The subjects of this study were students of Departement Educational Technology year 2014, Faculty of Education, State University of Surabaya. The number students of Departement were 92 students, it is divided into two classrooms. The number of class A is 46 students and class B is 46 students. The distribution of the classes is not based on the quality of students, so it can be assumed that the quality of students of both classes is equal. So, the implementation of this assessment model used random static group comparison design.

Based on the theory that has been analyzed, assessment model developed includes all behaviour of student related to the learning process includes four components, namely: (1) participation, (2) assignments, (3) sub summation and (4) summative examinations. Student participation includes: the presence of the lecture, student activity in asking, present their opinion, creativity, reasoning that shown in the activities or work-related lectures, and student activity consults outside lecture hours in
order enrichment lecture material. The assignment component includes all assignment from the lecture at one semester. The score of this component is mean of all assignment. Subsummative examination administrated two times. The score of the sub summative examination is mean of two times sub summative examination. Then, the final component of this assessment model is a summative examination.

The subject of study which used in the implementation was Epistemology and assessment. Determination of the subject of study was based on the consideration that the subject of study must be taken by all students of the Faculty of Education. Second, Epistemology was not liked by an undergraduate student, while the assessment was liked by an undergraduate student. Moreover, the characteristics of them are different, the material of epistemology is metacognitive knowledge and the material of assessment is procedural knowledge. Before implementation of assessment model begun, all of the component assessment model were socialized for the student.

The variables that observed during the implementation of the assessment model were applicability of assessment model, student discipline, and student achievement. The indicators of applicability in this study were applicability of participation assessment, assignment, sub summative examination, and summative examination. There was no difference sub summative and summative examination of this assessment model with the previous assessment model, so the component of applicability of the assessment model based on character building which studied just participation component. The indicators of student discipline are attendance punctuality in the lecture and collect the assignment. Then, the indicators of student’s achievement were the total score of assignment, sub summative, and summative examination. Participation component is not included in the variable achievement because assessment at control group did not use components participation. Moreover, the study applied t-test to analyze the data.

3. Finding and Discussion
The first variable studied in this research is the applicability of the assessment models based on character building. The components of the assessment model are participation, assignments, sub summative and summative examinations. Sub-components of participation are: the presence of learning or lecturing process, the frequencies, and quality of the question, the frequency and quality of the opinion, frequencies of consultation outside the lecture hours for enrichment, creativity reasoning that shown in the activities or work-related lectures. Complete data on the student participation experimental group and the control group can be seen in table 1.

| Classes     | Presence | Question | Opinion | Consult | Creativity | Score of Participation |
|-------------|----------|----------|---------|---------|------------|------------------------|
| Experiment  | 58.5     | 4.1      | 3.6     | 2.3     | 2.1        | 71.3                   |
| Control     | 55.7     | 2.4      | 1.9     | 1.7     | 1.4        | 64.2                   |

Note: The data is the average of the Epistemology and Educational Assessment Courses

The data in Table 1 indicate that the presence of student between the experiment class and the control class was almost the same, the average of presence at experiment class is 58.5 and the average at control class 55.7. While the components of the activity of students in asking have significant differences, the average score of the student questions in the experiment class was 4.1 and the control class was 2.4. The average score of student expresses an opinion at the experiment class was 3.6 and the control class was 1.9. The average score of consultation outside the lecture hours for enrichment at experimental class was 2.3 and the control class was 1.7. While the average score of the students’ creativity who appear in asking, questions, or expressing their opinions at experiment class 2.1 and the control class was 1.4. Overall score of student participation in the experiment class was 71.3 and the control class was 64.2.
The results of t-test analysis of the participation of the experiment class and a control class were 4.78. This result is greater than the $t_{table} = 2.021$ (df 44 and the significance level 0.05).

The second variable which studied in this research was the discipline of students in the lecture process. There were two components of discipline, namely: attendance punctuality in the lecture and collect the assignment. The data of the two components can be seen in Table 2.

| Classes   | Punctuality | Average Discipline Score |
|-----------|-------------|--------------------------|
|           | Attendance at the Lecture | Collect the Assignment |
| Experiment| 97.5         | 93.7                     | 95.6         |
| Control   | 92.8         | 76.8                     | 84.8         |

Note: The data is the average of the Epistemology and Educational Assessment Courses

The results of t-test analysis of the discipline students between the experimental class and a control class were 5.21. This result is greater than the $t_{table} = 2.021$ (df 44 and the 0.05 significance level). Based on the results of this analysis it can be concluded that there was a significant difference of students’ discipline between a class that implemented the assessment model based on character building and it is not implemented the assessment model based on character building. Variable discipline is a variable that it is embedded in the lecture so it is not possible to do a pretest. Therefore, as a substitute for pretests, it was used data on experimental class student discipline in the course of research methodology. The average score of student discipline in the course of research methodology was 84.4. The average score is slightly lower than that of the control student class average.

The results of t-test analysis of the experiment class score student discipline in the course of research methodologies and the two subjects tested (Philosophy of Science and Evaluation) was 5.43. This result is greater than the $t_{table} = 2.021$ (df 44 and the 0.05 significance level).

The third variable was studied in this research is student achievement. The component of achievements includes score assignments, a score of subsummative and summative examinations. The data of the three components can be seen in Table 3.

| Classes   | The Component of Achievement | Score of Achievement |
|-----------|-----------------------------|----------------------|
|           | Assignment | Sub summative | summative |
| Experiment| 78         | 81           | 80        | 79.7     |
| Control   | 76         | 74           | 73        | 74.2     |

Note: The data is the average of the Epistemology and Educational Assessment Courses

The results of t-test analysis of student achievement between experimental class and control class 2.71. This result is greater than the $t_{table} = 2.021$ (df 44 and the 0.05 significance level). This study does not do the pretest, as a substitute for pretests was used student achievement index in the previous semester. The results of t-test between achievement student on epistemology and assessment in a control class with student achievement index in the previous semester were 1.99 ($< t_{table} = 2.021$).

4. Conclusion

Based on the analysis that has been described, it can be drawn three conclusions. Firstly, a model-based assessment of character education can be implemented properly. The implementation of this assessment model requires the lecturer to inform the students that the lecturer had to record every student participation and opinion. If the number of students in the class is too large it is difficult to be able to carry out this assessment model. Therefore, this assessment model only suitable for a small class (20-30 students).
Secondly, the implementation of assessment model based on character building can improve student discipline in the instructional process. Lastly, the implementation of assessment model based on character building can improve student achievement.

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