PROBLEM SOLVING–BASED PERFORMANCE ASSESSMENT IN THE LEARNING OF CONSUMER EDUCATION AS A MEANS OF DEVELOPING CRITICAL– THOUGHT VOCATIONAL STUDENTS' CHARACTER

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Abstract

Ideally, students who are ready to study in university should have high self-motivation so that in the end they will reach their learning goal. In order for students to effectively reach their learning goal, there are some requirements to fulfill. Those are motivation (which is reflected in positive attitude in learning), learning readiness, learning tradition, and learning skill. Various efforts can be done by lecturers to make the students become characterized learners who are high motivated, independent, creative, and critical. Making characterized students can be done through a social problem and its assessment-based learning. This is necessary to build because student is Homo Sapiens whose intelligence will be formed inside the individual and in the social and cultural contexts. Curiosity as an intelligence process and a problem solving is a mode of reflective-critical thinking. One of the learning models that can be done is a learning using performance assessment. This performance assessment is used to measure the students' status based on the work of an assignment of solving problems in real life which tends toward an application stage of a principle or a concept in a new situation, based on a demand related to knowledge which has to be owned by students.

Keywords: performance assessment, consumer education, vocational student

1. Introduction

Crisis of life happens as a consequence of the wrong thinking way in understanding the meaning of life. Thinking takes place in every mental activity of a human. Its function is to formulate or solve problems, make decisions, and find understandings. The quality of thinking activity can differentiate one's value and behaviour. It is because human's deed and behaviour is instructed and controlled by his/her own brain. The products of brain can be in the form of thought (mind) and feeling (emotion) as a mood or impulsion to act. Goleman (2005) states that if a problem is related to a decision making and action, thus the aspect of feeling is as important as mind, and indeed is oftenly better than mind.

To come out of such crisis of life, there is an importance of focusing on the development of human resources through education. Education is identical with that of the personality developing through life. Human's personality develops through a learning process which is influenced by mind, emotion, and action. Rosyada (2008) states that until todays, there are in fact, many teachers follow the transfer of knowledge (without heart) paragidm in learning and give more focus on exercising the routinely quizzes and drills. This condition causes the result of school education is only able to produce humans of less self awareness, less critical thought, less creative, less self supporting, and less communical skills with those in the surrounding physical and social life environment. Thus, the question is, how can those values be owned by every individual? This question is related to the way the learning process in schools is done.

The learning of consumer education which involves the life values of a consumer and various problems which occure will play an important role in preparing an individual and society to anticipate the changing. The society's need of an understanding of becoming wise consumers in this full changing rea will continue to increase. Thus, mastering knowledge and new skills in facing the following problems will be a demand. The skill of high adaptability will be needed by every individual and society. Considering this demand of mastering knowledge and new skills, the learning of consumer education should be obtained to raise the self awareness and self control of every student in developing the learning skill of new things in consumer education.

The importance of developing the learning and assessment is to raise the skill of adaptability to help students in swallowing and constructing their own knowledge and to empower them in solving the problems they faced. To obtain it, there is a need to do an evaluation which can make the students learn. This hopefully will change the situation from teachers teaches into students learn,

from the consuming experience of teachers' into the consuming experience of students'. The characteristics of such evaluation can grow the productive culture like designing models, researching, solving problems, finding patterns, finding new ideas, both individually and in group.

The approach used is a consumers' problems-based approach. Hopefully, this approach will increase the ability to solve problems and the study result of consumer education which is empty into the building of students' critical thinking character. The performance of solving the problems in consumption can be assessed based on the stages of solving problems and the quantity and the quality of students' responses to the problem situation given. One of the assessing forms which is considered to be suitable to measure the performance is a *performance assessment*. The objective of consumers' problems-based performance assessment is to assess the performance and to examine students' ability to demonstrate their knowledge and skills in the activities of solving and proposing consumers' problems.

2. Discussion

Before discussing about building critical-thought students' character with the use of problem solving-based performance assessment in the learning of consumer education, it will be first discussed about the learning of consumer education containing the values of character building and its various problems, critical thinking skills through problem solving habituation, and problem solving-based performance assessment to build the character of critical thinking.

2.1 The Learning of Consumer Education and the Values of Character Builder with All Their Various problems

The learning of consumer education is one of the theoretical study courses which is given formally in one of many study programs in Vocational Higher Education Institution. The competences that hopefully will be obtained by students after completing the course is being able to have knowledge and skills to manage their personal finance, to make buying decision wisely, and to participate in becoming society members. In the consumer education, there are life values which play an important role in building students' character. Among the values in managing personal finance are including the values of economical, simple, productive, purposeful, and accountable. The skill of making decisions contains the values of self awareness, well informed, wise, minute, critical, sensitive, and valuing money. The value of social tolerance, environmental awareness, nationalism, caring, and fairness are embodied in the participation to the community member.

One of the basic competencies to be achieved in the course of consumer education is critical of various consumer problems in consequence of consuming activity and sensible of the current issues of consumer education. Consumer problems that often happen to the consumers are caused by the low awareness of consumers in applying consumer rights and obligations when making consumption of goods and services. That basic competence are translated into a number of indicators, namely 1) able to identify social/consumers problems caused by the trading rules, the compensation problem, the problem of specifying goods, quality issues of goods, and the problem of the influence of advertising, 2) able to choose those issues based on personal or others's experience, 3) able to collect data for problem solving, 4) able to develop a portfolio of problem solving, 5) able to present a portfolio in a discussion forum, and 6) able to do a reflection to make sense of problems and solutions.

The learning objective is to make students sensitive and responsive to various social/consumers issues and their implications for public policy. The students go through a process of presentations and discussions on a wide range of consumer problem-solving analysis, and then perform a variety of meanings and seek alternative solutions of how to anticipate them. Through this process, it is hoped that students will be able to formulate personal decisions and collective decisions through a democratic process, by communicating logically and responsibly as a reflection of the embodiment of characterized attitudes and behaviors, and then to disseminate the decisions that have been generated.

2.2 The Skill of Thinking Critically through Problem Solving Habituation

Thinking skill is a mental process that occurs when one is thinking. Thinking critically is, according to Inch (2006), a process where one tries to answer a difficult question that the information rationally not yet found at this time. Thinking critically is a mental process which is well organized and plays a role in the process of making decisions to solve problems by analyzing and interpreting data in a scientific inquiry activity (Johnson, 2000). Related to thinking critically, educators/leturers should teach students how to think and not teach what to think. Thus, the students will become critical thinkers and independent thinkers (Clement and Lochhead in Schafersman, 1991).

According to Nickerson *et al* (1987) and Muijs & Reynolds (2008), there are four kinds of the main program related to the thinking skills, i.e., the program of problem-solving skill or named heuristik program, metacognitive program, open-ended program, and formal thinking program.

Heuristik is a program that analyzes problems in order for them to be easily done. Metacognitive program is a self reflection of one's mind. Open-minded program is used to improve high skills. Formal thinking program is related to the effort to help students easily going through the transition among the stages.

Thinking critically is a part of thinking skills which is also related to what should be believed or done in every situation or event. Ennis (1996) said that thinking critically is actually a process of thinking skills that happened to a person and aims to make rational decisions about something that can be believed to be true. Therefore, the skill of critical thinking is none other than the skill of solving problem that produces reliable knowledge. Thus, there are two main signs of thinking critically. First, thinking critically is thinking appropriately. It guides to a direction of deductive thinking and a correct decision-making and is supported by proper evidences. Second, thinking critically is thinking reflectively which shows a full awareness of the thinking steps that leads to the deduction and decision making.

According to Ennis (1996), there are six basic elements which need to be considered in thinking critically. Those are focus, reason, inferential, situation, clarity, and overview (the wholly initiatives or reflection). Thus, thinking critically means finding a clear statement about a question, finding the reason, using the credible sources, totally considering the situation and condition, trying to keep relevant with the main and basic idea, finding alternative, behaving and thinking openly, finding logical reasons, and being sensible of other sciences. A person thinking critically is one who thinks and is responsible for the decisions he/she made in life which will give influence on his/her future life.

The occurrence of thinking critically in learning is by presenting problems of the inhabitual and open-ended contexts as well as by implementing the scaffolding approach in small groups. Besides, Chamot (in McGregor, 2007) suggested that developing thinking critically in a learning needs a modeling by teachers as well as the use of students' early skills and interactive communication. Meanwhile, Thomas (in Tall, 1999) suggested that to build a culture of thinking critically in learning, the students need to be faced with new and contradictive problems in finding the truth and the clear reason.

The quality of man's way of thinking is divided into three parts. Those are a low-level thinking, such as remembering, knowing, and understanding; a mid-level thingking, such as applying, using, and practicing; and high-level thinking, such as analyzing, sintesizing, evaluating, problem solving, thinking critically, and thinking creatively.

According to Gagne in (Natsir, 2004), a man's way of thinking depends his skills and the hierarchy of skills needed to study it. Gagne gave his opinion that in the process of learning, there are five abilities owned by students. Those abilities can be observed as a result of learning such as 1) intellectual skill, i.e. the ability which is related to mental operation which enables a man to give response to his environment, 2) cognitive strategy, i.e. the ability to control and to manage the studying and thinking activities in one's ownself, 3) verbal information, i.e. the ability to describe something in words through the managing of relevant informations. The observable performance is the performance of stating or communicating information both writtenly and spokenly, 4) motoric skill, i.e. the ability to do and to coordinate movements related to the muscle, and 5) attitude, i.e., the internal ability to choose positive or negative action toward a person, an object, or an event. Observable performance is the choosing of personal acts to approach and to avoid an object. Based on the explanation, thinking critically is a study result whose aspects include intellectual aspect, cognitive strategy, and verbal information. Those aspects can be used to support the achievement of critically thinking skill, higher order learning skill, and students' creativity.

2.3 The Problem Solving-Based Performace Assessment in the Learning of Consumer Education to Build Critically Thinking Character

The learning assessment can be used to improve the quality of learning process and the achievement of study result suitable to the objective set. The current curriculum requires the learning that more involves learners to be motivated, independent, active, and creative. In this context, there is a necessity to use an effective assessment, in the sense of having the accuracy and reliability in realizing of the learning objectives defined by the principles of assessment. The effective learning assessment as mentioned above occurs throughout the learning process in class.

There are seven techniques used in class assessment. One of those is a performance assessment. Performance assessment is a procedure which uses various tasks to gain information about what and how far that is done in a program. The monitoring is based on the performance shown in completing a given task or problem. The result obtained is the result of that performance. Performance assessment is an investigation of an in process product. It means that the result task shown in the process of the program implementation is used as a base to consider a monitoring of the improvement of the program's achievement.

Performance assessment is an assessment which is done by observing students' activities in

doing something. Generally, this assessment uses a test named a performance test. This test is used to measure the students' status based on the result of a task, not on the provided answers or choices. Thus, through a performance assessment, students will be accustomed to demonstrate their performances. The questions in performance test are based on the demand of society and other institutions associated with the knowledge that students should possess. Thus, the questions tend to be on the application level of a principle or a concept in new situations. The problems that were tested as far as possible are the same as the problems that exist in real life. This is the main characteristic of the differences between a performance tests and a conventional form.

Essay is a very common example of a performance-based assessment. However, there are still many other examples such as artistic production, experiment in science, and spoken presentation of problems solving in real life. Its emphasizing is on the doing, not on the knowing the process and product. In addition, the assessment of the ability of learners to make observations of phenomena in life, to formulate hypotheses, to collect data, and to describe the valid scientific conclusions may require the use of performance assessment. Performance assessment determines a basis for teachers to evaluate the effectiveness of processes or procedures used (for example, the approach to data collection, manipulation of the instrument) and the products that are resulted from the performance of a task (for example, report of the full results, complete work art).

Performance assessment oftenly points to an authentic assessment by emphasizing that the teachers assess the performance while the students are engaged in problem solving and learning experiences assessed in the truth of themselves, not as a means to assess students' achievement. However, not all of the performance assessments are authentic in the sense that teachers engage students in solving real problems (Linn & Gronlund, 1995:13).

The approach of performance assessment that can be used in raising the awareness of students in completing the task on the real problems of consumers and the outcomes of the learning of consumer education is the problem solving-based performance assessment. The problem solving-based performance assessment is objected to assess the performance of skills in solving problems and to test the ability of students in demonstrating their knowledge and skills in the activities of consumers' problems solving. With performance-based assessments of consumer issues, in addition to improving problem-solving skills, can also enhance critical thinking skills of students. Consumers' problems-based performance assessment is not only able to improve the ability to solve problems but

also able to improve the students' skill of thinking critically.

The implications of the solving of consumers' problems as process in the implementation of teaching and learning process in the classroom remains two main questions. Those are how to teach consumers' problem solving to the students and how to evaluate and assess students' performance in solving problem. Problem solving-based performance assessment is a performance assessment of the solving problem or the consumer education task which is completed by students through some steps in problem solving, namely 1) understanding the orientation of the problem (an essay on a various real consumer issues), 2) planning and organizing the problem solving, 3) implementing the plan of the problem solving by an independent investigation or a group investigation to seek explanations and solutions, 4) developing and appearancing the artifacts/works in the form of reports, videos, or models, 5) analyzing and evaluating the problem-solving process, and 6) presenting the report and revising the results.

There are three main components in performance assessment. Those are performance task, performance rubrics, and scoring guide. Performance task is a task which contains the topic, the task standard, the task description, and the condition of completing the task. Performance rubric is a rubric containing components of an ideal performance and a descriptor of that every component. There ae three scoring guides. Those are (1) holistic scoring, (2) analytic scoring, and (3) primary traits scoring. Holistic scoring is a scoring that is based on the assessor's general impression of the performance. Analytic scoring is a scoring of aspects that contribute to a performance. A primary trait scoring is a scoring that is is based on some dominant elements of a performance.

This problems-based performance assessment asks students to demonstrate and to apply their knowledge to solve problems in various contexts accordance with the desired criteria. To determine the type of task assigned to the performance tests, there is the use of a number of criteria. These criteria, as possible as we can, are used all, although in certain circumstances for assessment in class some cannot be used. According to Popham (1995: 147), there are seven criteria that can be used to assess the task of performance tests. Those are 1) whether the performers of test participant is sufficient to be generalized to other tasks (generalizability), 2) the given task is similar to what is often encountered in daily life (authenticity), 3) the given task measuress more than one desired capabilities (multiple foci), 4) assigned tasks are relevant to the learning materials (teachability), 5) the task given is fair for all the test participants (fairness), 6) the given task can indeed be implemented, given the cost factor, place, time,

or equipment (feasibility), and 7) the given task can be scored accurately and reliablely (scorability).

The importance thing in a performance assessment is the way of observing and scoring the students' performance ability. To minimize the fairness subjectivity factor in scoring the students' performance ability, usually the rater is more than one so that the result will be more valid and reliable. Performance assessment can be implemented in various forms and usually use two approaches. Those are holistic method and analytic method. The holistic method is used if the scorers only give a single score (single rating) based on the whole assessment of the students' work result. Analytic method is used if the scorers give different aspects which relate to the performance assessed. To do this method, the scorer can use checklist and rating scales.

3. Conclussion

That is all my thinking contributions on the building critical thought vocasional students' character by applying a problem solving-based performance assessment in the learning of consumer education. Thinking critically is a mental process which is well organized and plays a role in the process of a decision making to solve problems by analyzing and interpreting the data in the scientific inquiries. Theoritically, the skill of thinking critically can be improved by a problem solving-based performance assessment which involves three main components in performance assessment. Those components are performance task, performance rubrics, and scoring guide. There are three ways of assessing the performance. Those are (1) holistic scoring, i.e. scoring based on the assessor's general impression of the performance quality, (2) analytic scoring, i.e. scoring of the

aspects contributed to a performance, and (3) primary traits scoring, i.e. scoring based on several dominant elements of a performance. In assessing the tasks of performance tests, there are seven criteria that can be used. Those are generalizability, authenticity, multiple foci, teachability, fairness, feasibility, and scorability.

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