IMPROVING STUDENTS' CHARACTER AND LEARNING QUALITY THROUGH LEARNING MODEL INDICATING SPICES: A CASE OF PRIMARY SCHOOL TEACHER EDUCATION

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Abstract— This research aims to (1) examine the effectivness level of learning model indicating SPICES in fostering characteristics, (2) examine the effectivness level of learning model indicating SPICES in increasing students' activity, and (3) examine the effectivness level of learning model indicating SPICES in increasing students' learning outcome. The results of this research indicate: (1) by controlling variable of early intelligence and knowledge, learning model indicating SPICES is more effective than the teacher centered in improving students' character; (2) by controlling variable of early intelligence and knowledge, learning model indicating SPICES is more effective than conventional learning model in improving students learning activities; and (3) learning model indicating SPICES is more effective than conventional learning model in improving students learning outcome. Hence, this result is only limited to teacher education of primary school or educational program and the learning model indicating SPICES can be effective if the learning steps, social system, and reaction system are conducted comprehensively. The practical implication of the research shows the learning design in the classroom using SPICES is effective to improve the students' character. Therefore, lecturers can consider the learning methodology using SPICES to be applied in the classroom to improve the students' character and learning quality. This paper discusses an issue on the effectiveness of learning model indicating SPICES in improving students' character useful for their future in a such competitive global era.

Keywords— SPICES, Character, The Quality of Learning.

I. INTRODUCTION

In the Law of the Republic of Indonesia Number 20 Year 2003 on National Education System (National Education) stated that the function and purpose of the national education should be used in developing education in Indonesia. It was stated in Article 3 of the Law on National Education System that national education functions to develop national education, and character development and a dignified civilization. It also aims to develop students' potentials to become religious and devoted to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, democratic and responsible. The national education goal is the formulation of the quality of Indonesians which should be developed by each unit of education, including college.

Along with the development of science, technology, art, global life, as well as the demand for qualified higher education graduates, universities, especially UNNES, are demanded to continually strive in improving the quality of education services. College is considered successful when it has capability in organizing educational services and creating graduates who are qualified and competent as well as have characteristics. This condition will determine the existence and position of the college community both in Indonesia and abroad.

One lesson that needs attention in college, especially in undergraduate students of primary school teacher education (PGSD) UNNES is learning in a group MKDK (Basic Courses Education), School of Management in particular subjects. The need to increase the quality of learning is driven by its course vision, mission and goals in which preparing the students to have a set of pedagogical competence to become professional teachers. On the other hand, based on observations during the researcher became a lecturer of MKDK in PGSD, data showed that: (1) the learning process in a MKDK group particularly on School of Management subject is found to be teacher centered meaning that the lecturer plays role as the major learning resources and omniscient and students only receive what is given by the lecturer; (2) lectures of MKDK, particularly School Management, mostly applies expository approach which means that the course of School Management is only considered as memorizing subjects making the students to think less; (3) lectures of MKDK, particularly School Management courses conducted so far tend to only pay attention to the number of items and the allocation of the available time, to pursue the achievement of the curriculum without considering some important things that have been outlined in the curriculum. Whereas in the School Management lectures, students are expected to understand the concepts of school management and its applications, as well as develop their thought to solve practical problems related to the theme of school management today.

Associated with exposure to the above, researchers determined the study should be carried out with a model SPICES. SPICES is an acronym for (1) Student-centered, (2) Problem-based; (3) Integrated;

(4) Community-based (consumer - based); (5) SMO; and (6) Systematic. This acronym also describes the main components of the concept of learning SPICES (Harden, et al (2009). By applying SPICES, teacher will be able to: (1) make students more motivated and active in the learning process; (2) develop skills to solve the problem in a comprehensive manner; (3) develop the ability to analytical thinking; (4) improve social skills applicable in a social environment; (5) provide learning opportunities to students according to their talents, interests and other unique characteristics, and (6) make the learning process more orderly and effective.Based on the ideas and conditions mentioned above, in this study raised the idea of developing learning model indicator of SPICES to develop the character and improve the quality of learning courses in the School of Management PGSD of State University of Semarang.
The main problem of this study was formulated in the following questions: (1) how effective is the learning model indicating SPICES in developing students' character?; (2) how effective is learning model indicating SPICES in improving students' activities during the lecture; and (3) how effective is learning model indicating SPICES in improving learning outcome?. The objectives of this study are to: (1) examine the effectivness level of learning model indicating SPICES in fostering students' characteristics, (2) examine the effectivness level of learning model indicating SPICES in increasing students' activity; and (3) examine the effectivness level of learning model indicating SPICES in increasing students' learning outcome.

II. RESEARCH METHODS

The method used in this research is class action research and experiment applying quantitative approach. For the determination of the study sample, randomization techniques used in group assignment or *"Randomized Group Assignment"*. The study subjects were divided into three units. The first unit consists of 42 students involved as a pilot group learning model indicated SPICES. Then, second unit consists of 45 students as the control group were subjected to conventional learning models, and unit 3 involves 45 students as the experimental group that were subjected to SPICES learning model. The variables of this study include: 1) learning model indicated SPICES, 2) character, 3) students in learning activities, and 4) learning outcomes. Data collection techniques used in this study include: (1) questionnaire, (2) the documentation study, (3) observation, (4) attitude scale personality, (5) achievement test, (6) the standard tests progressive Metrics (SPM) Artificial Raven. The control group and the experimental groups have intelligence level in common in order to validate the model and test the effectiveness of learning indicated SPICES. In the analysis phase of the development of models, analytical techniques used include: (1) Delphi technique, (2) qualitative analysis, (3) descriptive analysis, and (4) t-test techniques. The technique of analysis for model validation test results include: (1) technical t-test, (2) Analysis of covariance, and (3) the descriptive analysis.

III. RESULTS AND DISCUSSION

Learning model indicated SPICES which is effective to develop the character and improve the quality of learning in the lecture of Management School course has several characteristics: (a) It has 5 steps, namely orientation phase to the problem, the exploration phase or the disclosure of the idea, the stage of elaboration, the stage of confirmation, and closing stage;(b) social system that supports learning indicated SPICES is: the proximity of lecturers and students in the process of *teacher-assisted instruction,* lack of faculty role as a transmitter of knowledge, effective social interaction, exercise investigating complex problems, the lecturer plays role as a facilitator and supervisor of learning;(c) reaction principle requires lecturers create learning interactions open, multidirectional, familiar, and democratic;(d) the need for a means to support the classroom activities such as students work sheets, instructional materials in the form of modules, computer, modem, *flash,* tables and chairs which are easily mobilized or classrooms that have been laid out for it. A number of 100% of the students who are subject to a learning model indicated SPICES are able to develop character in the excellent category, in the sense that students are subjected to the learning model indicated SPICES have been able to develop characters indicated by: (1) hard work, (2) independent, (3) creative, (4) democratic, (5) discipline, (7) tolerant, (8) responsible, (9) caring for social, and (10) friendly, in the excellent category. The average score of students were subjected to character development indicated SPICES learning model is 71.8222, while the average score of student character development that are subject to teacher centered model is 59.8889 which means good. By the use of t-test, it was found coefficient t t probability = 0.599 and 0.0001 to p <0.05. By using analysis of covariance with covariates measured intelligence and prior knowledge of the value of character development, found the average scores of character development for the group amounted to 59.8889 for conventional learning models; and group learning model indicating SPICES is 71.8222. Differences in scores of character development is found to be significant at p <0.05, with covariates intelligence and prior knowledge. Because the F count (Fo) = 0,833 greater than the F probability (Fp) = 0.513, then the hypothesis which states that *"By controlling the variables of intelligence and prior knowledge, learning model indicated SPICES more effective than conventional learning models in*

developing character in the lecture of School Management in PGSD Semarang State University " is accepted. These conditions are possible because with reference to the characteristics of the learning model indicating SPICES which applies the principle of student centered, problem-solving, integrated, contextual, elective, and systematical.

The average score of students 'learning activities that are subject to a learning model indicated SPICES is 34.4000 which means that it is very good. Meanwhile, the average score of students' learning activities that are subject to a conventional learning model is 29.1556. By applying t-test, it was found that coefficient t t probability = 0.539 and 0.0001 to p <0.05. By using analysis of covariance with covariates measured intelligence and prior knowledge of the value of the learning activities of students, found the average scores for the group learning activities using teacher centered models for 29.1556; and group learning model indicated SPICES of 34.4000. Differences in scores of the students' learning activities to be significant at p <0.05, with covariates intelligence and prior knowledge.

Because the F count (Fo) = 2.276 is greater than the F probability (Fp) = 0.078, then the hypothesis which states that *"By controlling the variables of intelligence and prior knowledge, learning model indicated SPICES more effective than teacher centered model in improving the learning activities of students in the lecture of School Management course at PGSD at the State University of Semarang* " is accepted**.** This condition is possible because with reference to the characteristics of the learning model indicated SPICES which apply the principle of student centered, problem-solving, integrated, contextual, elective, and systematic, students are challenged to be active in learning, active in discussion groups, solving problems in a group, paying attention to learning materials, asking and answering questions, expressing opinions, interacting in groups, cooperating within the group. Hence, automatically, students' performance during the learning process will also be increased. A number of 100% of the students were subjected to conventional learning models have learning outcomes in both categories, in the sense that students are subjected to teacher centered learning models have mastery learning outcomes of school management course about 63-81%. There were 95.56% of students who are treated in a learning model indicated SPICES found to perform in excellent category. It means that students are subject to a learning model indicated SPICES have mastered school management course about 82-100%. The average score of student results treated by learning model indicated SPICES is 86.6444 meaning that it is very good. Meanwhile, the average score of student results treated with a teacher centered learning model is 77.6444. By applying t-test, it was found that coefficient t t probability = 0.791 and 0.0001 to p <0.05. By using analysis of covariance with covariates measured intelligence and prior knowledge of the value of learning outcomes of students, it was found the average scores of students' learning outcomes for the group amounted to 77.6444 teacher centered models; and group learning model indicated SPICES of 86.6444. Differences in scores of the student learning outcomes to be significant at p <0.05, with covariates intelligence and prior knowledge. Because the F count (Fo) = 7.579 is greater than the probability F (Fp) = 0.0001, then the hypothesis which states that *"By controlling the variables of intelligence and knowledge early, SPICES indicated learning model is more effective than teacher centered models in improving student learning outcomes in a lecture of School Management course at PGSD in State University of Semarang* " is accepted. Levels of the effectiveness of learning models indicated SPICES, in improving learning outcomes in a lecture of School of Management course at PGSD in State University of Semarang is 70.71%. A number of 88.89% of the students of PGSD in State University of Semarang has a very good response (scale 3 and 4 is greater than the scale 1 and 2) of the learning model in the lecture indicated SPICES for Management School course. It means that it has a very positive attitude and very amenable to the learning model indicated indicator SPICES which includes acceptance, approval attitude, interests, motivations, and perceptions. The average score of student response to SPICES approach in a lecture of School Management is excellent with 35.4889. This is possible because with reference to the characteristics of the learning model indicated SPICES applying the principle of student centered, problem-solving, integrated, contextual, elective, and the systematic use of computer technology and the internet in learning, problem solving, the principle of active learning and creative, open interaction and democratic, is assumed to be able to increase student interest and motivation to learn. Hence, they responded positively to the learning model indicated SPICES.

CONCLUSION

The conclusions of this study are: (1) learning model indicated SPICES which is effective in developing the character and improving the quality of learning has several characteristics: (a) it has the steps starting from the orientation phase to the problem, the exploration phase or the disclosure of the idea, the stage of elaboration, confirmation stage, to the stage of closing, (b) social system which needs to be developed in the study is the proximity of lecturers and students in the process of *teacher-assisted instruction*, lack of role of the teacher as a transmitter of knowledge, effective social interaction, exercises investigation of complex problems, learning

programs delivered through a wide range of learning activities in groups, teachers as facilitators and directors of learning process for students, (c) principle that must be developed in the study is an open teaching and learning interaction, multi-way interaction, familiarity, and democratic; (d) there should be a support system in learning includes student work sheets, instructional materials in the form of modules, computer, modem, *flash*, tables and chairs which are easily mobilized or classrooms that have been designed for it; (2) The average score of character development values for teacher centered learning model group in both categories, and group learning model indicated SPICES in the excellent category (3) The average score of students' learning activities that are subject to a learning model indicated SPICES is very good. Thus, SPICES indicated learning model is more effective than conventional learning models in improving student learning activities in a lecture of School Management course at PGSD in State University of Semarang; and (4). The average score of student results are subject to a learning model indicated SPICES is very good, while the average score of student results subject to a teacher centered models is good. Thus, SPICES indicated learning model is more effective than teacher centered learning models in improving student learning outcomes in a lecture of School Management course. Levels of the effectiveness of learning models indicated SPICES are high in improving learning outcomes in the lecture of Management School course at PGSD Semarang State University.

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