

# Pedagogical Competence of Vocational Teacher through the Model-impact School Patterns in the Application of Change Management

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**Abstract**—The implementation of a frequently changing vocational curriculum model has had an impact on school management. The purpose of this research is to know the potential and problem of pedagogic competence improvement of vocational teachers through the model-impact school patterns (MIS-P) in the application of change management. This research method using descriptive qualitative approach. Research data obtained through observation, interview and focus group discussion. SMK N 1 Tomohon as a sample of impact school and SMK Kr 1 Tomohon as sample of model school. FGD respondents are school leaders, heads and teachers of productive programs, and vocational education experts. The results show that the implementation of MIS-P has several potentials: (1) teachers are very prepared to the MIS-P; (2) the pedagogical competence of vocational teachers is a process that must be continuously developed according to the needs of a rapidly changing and dynamic industry; and (3) have multiply effects for the impact school, because in addition to the pedagogic competence improvement of vocational teachers, but also for the development of teachers human resources. The problems faced are: (a) there has been no good support from the local government; and (b) expert support from university has not been well established.

**Keywords**—*pedagogic of vocational teachers; model-impact school patterns; change management schools*

## I. INTRODUCTION

Vocational education in Indonesia still faces several challenges, including equality, quality and relevance [1,2]. Equality related to inequality of education services provided by the government for all school-age children in Indonesia. The quality of education is related to the quality and competency of graduates that are still not evenly distributed compared to education graduates from developed countries. In addition, graduates of education have not been fully able to build national independence, create modern science and technology. The relevance of education is related to the compatibility between curriculum content, learning and graduate competencies with the industrial world. Regarding the relevance of the curriculum, the Indonesian government through the Ministry of Education and Culture issued a policy

by developing the school curriculum from the Education Unit Level Curriculum (KTSP) to be the 2013 curriculum (K13).

Changing the school curriculum from KTSP to K13 has had a change in school management. Each school must understand the changing conditions and be able to manage change so that the school's performance in implementing the 2013 curriculum is achieved in a high gradation. Some vocational high schools (SMK) need to make adjustments to the application of a new curriculum such as K13. SMK Negeri 1 Tomohon City as a relatively new school (impacted school respondents), has not really understood change management and has not been able to manage change so that the school's performance in implementing KTSP development is difficult to achieve in high gradations. These changes have an impact on the teacher's pedagogic abilities or competencies in the management of vocational learning, because in the application of K13 shows the level of teacher's ability to understand the implementation of learning is inadequate [3], and teachers feel confused and have difficulty in applying K13 [4] in managing learning. So that the changes can be carried out effectively and efficiently and find the form as expected, the changes need to be managed properly. The purpose of this study was to find the potential and problems of improving the pedagogic competence of vocational teachers through the model-impact school patterns (MIS-P) in the application of change management.

Vocational education is an educational model in which learning is carried out to prepare students to have competence in an area of expertise. Vocational education is education that prepares students to work in certain fields. Vocational education is an educational model that can serve a variety of individual needs, because individual needs that are very important are the need for work in order to meet the needs of life. Vocational education programs not only prepare students to enter the workforce, but also place their graduates in certain jobs [5].

Vocational learning in the implementation of vocational education must be well prepared. Vocational learning is an important process for every individual student, so that students can achieve job skills competencies according to their field of expertise [6]. Vocational learning is an activity and experience

that leads to understanding and or skills that are relevant to various work environments [7]. Vocational learning is a learning principle that must always link the competencies of students with the needs of the workforce [8]. The importance of vocational learning in an effort to equip SMK students with work competencies, so that SMK teacher must have the ability to do vocational learning well. The teacher must have pedagogic competence. Pedagogic competence is the teacher's ability to manage learning [9].

Pedagogic competence as an individual's ability to use a combination of real resources that are coordinated and synergistic (such as instructional materials such as books, articles, and technologies such as software and hardware) and intangible resources (such as knowledge, skills, experience) to achieve efficiency and or effectiveness in learning [10]. But pedagogics can be understood as a science or art, it can also be seen as a theory or empirical [11]. The importance of pedagogic competence in learning in vocational high schools, with changes in curriculum implementation from KTSP to K13, then each vocational school must always effort to equip a teacher with pedagogic competence. For SMK relatively newly established, one effort that can be done is to implement MIS-P in processing school changes management, by learning from SMK that have been relatively long established and have experience in producing graduates.

MIS-P is a partnership program as an effort to equalize quality and school relevance. The partnership program is directed at improving the school management system and learning system, so that the quality is good [12]. School partnership is essentially a collaboration in the framework of equality and quality alignment between schools. One form of partnership is to provide opportunities for schools that are less developed (impact school) to develop their schools by adapting the experiences of success that have been done by schools that are already advanced or model schools [13]. Thus, in order for schools to succeed in implementing of MIS-P, the school must be able to apply school change management to a more quality and relevant.

Change management is the process of managing resources to bring the current situation to the new state that is expected [14], in relation to the school, school change management is the process of managing school resources to bring the current state of school (school with KTSP) to the desired school state (schools with the 2013 curriculum). Change management steps can be done in four steps in the form of four questions, namely, *where we now?; where do we meant to go?; how can we get there?; what did we achieve?* [15].

## II. METHOD

### A. Research Design

This study uses a descriptive qualitative research approach, where quantitative data is obtained through observation, interview and focus group discussion (FGD). Quantitative data in this study is to illustrate the potential and problems of implementing MIS-P in managing changes in school management from the KTSP curriculum to the K13 curriculum.

SMK N 1 Tomohon City as an impact school and SMK Kr 1 Tomohon City as a model school.

### B. Techniques and Sources Data Collection

1) *Observation*: Observations were made to look at the learning patterns carried out by the productive program teachers at the impacted schools in the implementation of K13.

2) *Interview*: Interviews were conducted to explore the successes and obstacles to the implementation of vocational learning conducted by productive program teachers at impact schools. In the interview activities involved several vocational school teachers, namely 1 teacher as a vice principal, 1 teacher as a coordinator of a productive program expertise group, and 4 teachers in a productive program.

3) *Focus group discussion (FGD)*: FGD with school leaders, heads and teachers of productive programs, and vocational education experts to discuss the potential and problems of pedagogic competence improvement of vocational teachers through the model-impact school patterns (MIS-P) in the application of change management, in an effort changes from the initial conditions (KTSP curriculum) to the desired conditions (K13 curriculum). Respondents involved in the FGD were 1 teacher as a vice principal, 1 teacher coordinator of productive program expertise groups, 4 teachers in a productive program, and 3 vocational education experts.

### C. Analysis of Research Data

The data of this study were analyzed using triangulation techniques on data from observations, interviews and focus group discussions. The data obtained in this study is to find the potential and problems of implementing MIS-P, with an analytical approach that is complementary and strengthening existing data.

## III. RESULT AND DISCUSSION

The success of vocational teacher professional performance is influenced by teacher professional competence, such as pedagogic competence [16] [17]. The teacher's ability is relatively lacking in showing pedagogic competence in the implementation of learning, when there is a change from KTSP to K13. The deepening of the situation and condition of the teacher in the productive program at the impacted school during the interview stage showed that some teachers experienced obstacles and confusion in the implementation of K13, specifically when internalizing into the learning plan of productive vocational programs. Some things that become obstacles for teachers are learning patterns in K13, such as learning with a scientific approach [18] and emphasizing authentic assessment [3] on three domains, namely attitudes, knowledge, and skills. This shows that teachers need to be equipped with pedagogic skills in learning, knowledge of pedagogic content [16] and knowledge of the application procedures. Observation efforts carried out also for productive program teachers in the impact schools, found that the completeness of learning documents, such as documents for

preparation, implementation, and evaluation of learning had been prepared by the teachers well. But actually the teachers just complete and do not understand properly and correctly about the process of preparation and the role of the learning document in K13, because the teachers just “copy and paste” from other documents. This makes the teachers difficult to implement. The confusion and difficulties faced teachers, became a driver for strategic and innovative efforts in gaining knowledge and skills in applying K13 in each learning. The implementation of the FGD with productive program teachers resulted in a good respond from the teachers and prepared with the implementation of the MIS-P as an effort to develop their pedagogical abilities and competencies in managing vocational learning.

The scientific learning that was applied in K13 has become an obstacle for teachers in making adjustments to the previous KTSP curriculum. Some learning principles in K13 which are a paradigm shift from the previous curriculum, are: (1) teachers are not the only learning resources so students learn from various learning sources; (2) students are facilitated to find out rather than be told; (3) the learning process uses a scientific approach; (4) learning that emphasizes divergent answers that have multi-dimensional truths; (5) utilization of information and communication technology to improve learning efficiency and effectiveness [3]. Another approach in K13 is contextual and constructive learning by referring to five learning experiences namely observing, asking questions, gathering information, associating, and communicating. Some of these principles and approaches need to be provided to productive program teachers so that students achieve their competence.

The principle of change management can be applied in schools, to change from the initial conditions (with KTSP) to the desired conditions (with kurikulum K13). Change management can be expressed as a management transition from the old situation to the new situation. This can be done by unfreezing, in old situations and refreezing into new situations, so that it becomes an expected situation [14]. Based on this definition, it can be stated that, change management is an approach, tools, techniques and process of managing resources to bring the organization to its current state of being desired, so that organizational performance will be better

Changes in school management from the management of KTSP to K13, can be applied with the principle of change management with four steps in the form of questions [15], namely, *first, where we now?* Schools must be able to express objective facts about the current real conditions through self-evaluation. At this stage, it is clear that the school vocational teachers do not have good pedagogical competence; *second: where do we meant to go?* After the current condition is known based on accurate, objective and up to date data, the next stage is to determine which direction we will go, it is clear that towards the implementation of the 2013 curriculum learning effectively and efficiently; *third: how can we get there?* Determine how to achieve it. Here are the steps that can be taken by the MIS-P [13], with the principle of the model school giving a positive effect on the impact schools, which are adjusted to urgent needs; *fourth, what did we achieve?* Monitoring can be carried out to find out program and

evaluation achievements to find out how high the achievements are.

Good pedagogic competence from vocational teachers can be the capital or key to successful classroom learning in the process of transferring knowledge to students. The importance of pedagogical knowledge allows what is known by the teacher, will be understood by students, because the teacher will understand how to formulate an explanation, describe content, and can respond to wrong understanding [19], more broadly mentioned pedagogic aims to adapt the needs of the community as a result globalization [20]. Pedagogic knowledge also significantly influences the quality of teacher teaching and student learning outcomes [21].

Teachers who have good vocational pedagogic competencies will be able to manage learning better. Vocational pedagogic is the total number of decisions that vocational teachers take when they teach, adjusting approaches to meet the needs of learners and to match the context in which they find themselves. Vocational pedagogics can have a direct impact on the quality of teaching and learning [22].

Teachers of productive programs at impacted schools, need opportunities to develop their ability to improve pedagogical competence. The teacher's strong willingness is the basis that teachers are very prepared with the MIS-P, to develop their pedagogical competence from the model school with the principle of learning from observation and experience [13]. Vocational learning must always keep abreast of the needs of the workforce. Thus the pedagogical competence of vocational teachers is a process that must continue to be developed in accordance with the needs of rapidly changing industry dynamics. The implementation of MIS-P has multiply effects for impacted schools, because in addition to increasing the capacity of vocational learning but also for the development of human resources for teachers.

The implementation of MIS-P is so attractive that productive teachers from the impact schools have an attitude that is ready to be involved in the implementation of the MIS-P. The importance of establishing pedagogic competencies for teachers through MIS-P to develop vocational learning is better, but there is no good support from the local government through related agencies, as a basis for its implementation. Government support is important because it has social and economic interests in the implementation of vocational education [23]. Another obstacle also is that the support of vocational education experts as facilitators from universities has not been well developed, because if a collaboration is established with experts from universities, vocational teachers will get a good learning experience [23], to improve vocational pedagogical competence.

#### IV. CONCLUSION

Pedagogic competence of vocational teachers can be the key to the success of teachers in the process of vocational learning in SMK, in order to equip students with competencies that are in line with industry needs that are always changing rapidly. MIS-P is an alternative solution that is good for schools relatively new established to learn through observation and experience from schools long standing that have produced

quality graduates and have applied K13 in every lesson. So that changes in school management from the old curriculum conditions (KTSP) to the new curriculum (K13), can be done by applying change management.

The results of this study show that the implementation MIS-P has several potential, namely: (1) teachers in principle are very prepared and desire with implementation MIS-P; (2) easy to do because it is relatively close to the place and easy to reach; (3) the pedagogical competence of vocational teachers is a process that must be continuously developed according to the needs of a rapidly changing and dynamic industry; and (4) have multiply effects for the impact school, because in addition to the pedagogic competence improvement of vocational teachers, but also for the development of teachers human resources. The problems faced are: (a) there has been no good support from the local government through the relevant agencies as a basis for implementation; and (b) expert support as a facilitator from university has not been well developed.

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