

The Impact of Creative Model Supervision on 21st Century Skills of Senior High School Students

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Abstract—The demographic data stated the huge number of Indonesian students, it is around 49,186,236 students. It makes Indonesia becomes the 7th largest in the world. With this huge number, if the students are educated through a standardized education system, developing 21st century skill students (4C; critical, creative, collaboration and communication), they are expected to become a golden generation in 2045 to compete globally. To achieve this goal, the best practice has been implemented in developing and implementing creative model supervisions, namely: Supervision, Clinical, Collaboration, Self-Peer-Superior Assessment, Monitoring, and Evaluation (SUCCESS-ME). SUCCESS-ME model implementation in five target schools is integrated in the curriculum structure: (1) syllabus and (2) lesson plan and in learning process. The results of the Best Practice of SUCCESS-ME model is improving the 21st century skill students in five target schools, both in the curriculum structure (syllabus and RPP) and the classroom learning process. It is significant with a value of $p < 0.05$. This can be seen that the percentage increasing in each aspect before implementation compared to after the implementation of SUCCESS-ME model. Recommendations from the results of this study: (1) SUCCESS-ME model needs to be implemented in the curriculum structure and in the learning process. (2) SUCCESS-ME model must be carried out continuously starting students entering to graduate.

Keywords—creative model supervision; 21st century skill students

I. INTRODUCTION

Based on current data and facts: (1) demographic data the number of Indonesian students are very high around 49,186,236, including the 7th largest in the world [1], by the huge number of educated students, through a standardized education system and developing 21st century skill students, they are expected to be a golden generation in 2045, who are ready to compete globally; (2) the description of the 21st century student in five target schools before implementation of SUCCESS-ME model shows that: (a) the development of 4C skills in syllabus and RPP is still below 60% ; (b) developing skills in the 21st century student in the learning process which is still under 60% in the new core activities reach 56.36% and the new cover reaches 59.62% [2].

The education system in Indonesia is currently based on standards to develop 21st century skill students to form a

golden generation in 2045. The education system is in line and based on the following regulations: (1) Law No. 20 of 2003 [3], (2) Permendikbud No. 20-21 of 2016 [4], and (3) the medium-term development plan Indonesian country (RPJM) 2015-2019 [5]. Schools as the spearhead of the education process must obey the three regulations above to carry out a quality educational function, to develop 21st century skill students, and to form a golden generation in 2045 that is ready to compete globally.

Therefore, it is necessary to develop a creative model supervision that will lead to achieve the goal. A creative model supervision encourages freedom and creativity in three ways, namely: (1) combination of models or a combination of supervisory behaviors from different models (2) shifting of supervisory responsibilities from the supervisor to other sources, (3) an application of insights from other fields that are not found in any of the models [6-8]. Working with only one model can be appropriate but it can also be limited. Sometimes, a combination of different models might be needed. A supervisor can choose a particular supervisory approach according to the type of information that the teacher is seeking [6,9-11].

Implementation of a creative model supervision namely SUCCESS-ME, implementing standards and regulation-based educational activities on all components in educational organizations, will lead to the achievement of quality results [6,12-15].

This research aims to developed and applied the SUCCESS-ME model to improve 21st century skill students (4C) in five target schools, which are integrated into the curriculum structure (syllabus and RPP), and in the learning process.

II. METHODS

A. Target Implementation SUCCESS-ME Model

The target Implementation of SUCCESS-ME model is five schools in Bandung City area of West Java Province of Indonesian Country, namely: Senior High School 27 Bandung, Senior High School Kalam Kudus Bandung, Senior High School Nugraha Bandung, Senior High School YPKKP

Bandung, and Senior High School Jenderal Sudirman Bandung.

B. Analysis Before and After SUCCESS-ME Model Implementation in Five Target Schools

The Analysis process is before and after SUCCESS-ME model implementation in the five target schools. The measurements of students' 21st century skills (4C) are integrated into the curriculum structure (syllabus and RPP), and in the learning process.

C. Implementation SUCCESS-ME Model

The SUCCESS-ME model implementation was carried out in five target schools and has been carried out from March 22 to April 21 2018, carried out through 4 main activities with the following details:

1) Supervision:

- Academic supervision, the form of supervision activities by helping teachers to synergize 21st century skill students into learning planning, implementing learning and learning outcomes assessment.
- Managerial supervision, the form of supervision activities by assisting principals in fostering all time and teachers, can synergize 21st century skill students in the curriculum structure (syllabus and RPP), and in the classroom learning process
- Clinical supervision, a form of supervision activities by assisting principals, all Vice-Principals and teachers in diagnosing difficulties and determining solutions to synergize 21st century skill students, on curriculum structure (syllabus and RPP), and in learning process

2) Collaboration: Form of supervision activities by assisting principals, committees, all vice principal and teachers to conduct conducive, complementary and supportive collaborations in pioneering 21st century skill students (4C), starting from curriculum structure (syllabus and RPP), and in the learning process in the classroom.

3) Assessment:

- Self-assessment, the form of supervision activities by giving opportunities to principals, vice principal, and teachers to carry out self-assessment, from the performance of the main tasks and functions that have been carried out in pioneering 21st century skill students (4C), starting from the curriculum structure (syllabus and RPP), and in the learning process in the classroom
- Peer assessment, a form of supervision activities by giving teachers the opportunity to carry out assessment of the implementation of learning to their peers in pioneering 21st century student skills (4C), starting from the curriculum structure (syllabus and RPP), and in the classroom learning process
- Assessment of superiors, form of supervision by assisting principals in measuring the ability of teachers

to plan learning, implement learning, and carry out assessment of learning outcomes in pioneering the development of 21st century skill students.

4) Monitoring and evaluation (money):

- Monitoring is a form of supervision aimed at controlling the implementation of SUCCESS-ME model, conducted by school principals, all staffs and teachers, in developing 21st century skill students, starting from the curriculum structure (syllabus and RPP), and in the learning process in class.
- Evaluation, activities are a form of supervision to measure the achievement of the objectives of SUCCESS-ME model implementation.

III. STATISTICAL ANALYSIS

Analyses were performed using SPSS for Windows 14.0-SPSS 2010. A paired t-test were used to analyze before and after SUCCESS-ME model implementation results. A value of $p < 0.05$ was considered significant.

IV. RESULTS AND DISCUSSION

A. Results

1) Description before SUCCESS-ME model implementation in five target schools: Based on the description of the average data in Table 1 in five target schools shows there are still aspects that do not meet expectations, namely: (1) the development of 4C skills in syllabus and RPP is still below 60%; (2) the development of 21st century skill students in the learning process which is still below 60%, main activities (56.36%) and cover (59.62%). The three aspects that have not been fulfilled as expectations should have a solution. It's by applying the SUCCESS-ME model.

2) Description after SUCCESS-ME model implementation in five target schools: The result of the implementation of SUCCESS-ME model on the improvement of 21st century skill students in five target schools is shown in Table 1.

TABLE I. RESULT OF SUCCESS-ME MODEL APPLICATION ON 21ST CENTURY SKILL STUDENTS

	21st century skill students' Aspects	Percentage	
		Average Before implementation	Average After Implementation
A	Curriculum Structure: developing 21st century skill students		
	Develop skills 4C in the syllabus of each subject	57.88	70.09
	b. Develop skills 4C integrated in the lesson plan of each subject	53.56	69.77
B	21st century skill student's development in the learning process		
	1. Preliminary activities:		
	Developing 21st century skill students	64.40	66.09
	2. Core activities:		
	Developing 21st century skill students	60.50	65.41
	3. Closing activity:		
	Developing 21st century skill students	65.08	70.90

3) Statistical analysis

TABLE II. STATISTICAL ANALYSIS PAIRED SAMPLES T TEST

	t	Significance (2-tailed)
Before-After Implementation	4.469	0.003

Table 2 shows that implementation of SUCCESS-ME model is able to improve 21st century student skills in five target schools that is significant, a value of p 0,05.

B. Discussion

Based on the data in Table 1, SUCCSES-ME model can improve 21st century student skills (4C), in five target schools, both in the curriculum structure (syllabus and RPP), and the learning process in the classroom. It is showed in the percentage that is increasing in each aspect before implementation compared with after implementation of SUKSES-ME model.

The data in Table 1 show that the application of SUCCESS-ME model improves teacher skills to integrate 21st century student skills (4C), in the curriculum structure from the syllabus structure and RPP. These conditions indicate that teachers have begun to understand how to integrate 21st century skill students in both the syllabus and RPP.

The data in Table 2 shows that the implementation of SUCCESS-ME model improves the 21st century skill students in five target schools that is significant a p value of 0.05. The increase occurs in teachers' understanding because teachers have begun to understand the shortcomings of their own and peers assessment results, assessment of the curriculum principal, supervisor/principal assessment and supervisor verification before the implementation of the model. So that the teacher carries out a discussion focus group it will be easy to correct these deficiencies both in the syllabus and RPP. Thus, an increase in understanding occurs through experience due to self-assessment and peer assessment and assessment from the principal/ principal and verification of the supervisor. Furthermore, understanding will be better if there are directions from superiors/principals and supervisors through collegial relationships that are harmonious, conducive, mutually supportive, complementary, and complementary among teachers when they improve syllabus and RPP that have been made, under the guidance and direction of the principal and supervisor [11-14].

Improvements also occur in developing 21st century skill students in the learning process. The data in Table 1 show that the application of SUCCESS-ME model improves teacher skills to develop 21st century skill students in the learning process in the classroom. This can be seen from the percentage that increases before and after the implementation of the model starting from preliminary activities, main activities, and closing activities. These conditions indicate that teachers have begun to understand how to develop 21st century skill students, in the learning process in the classroom.

This increase occurs because teachers have begun to understand teaching and learning, the shortcomings of the results of their own and peer assessment, assessment of the

curriculum principal, assessment of superiors/principals and supervisors while implementing the learning process in the classroom [15-19]. So that the teacher carries out a discussion focus group it will be easy to correct these deficiencies both in the effort to improve the syllabus and lesson plans, as well as carry out the learning process and then to improves of 21st century skill students [16-18]. Thus, an increase occurs through experience due to self-assessment and peer assessment and assessment from superiors/principals and from supervisors. Furthermore, understanding will be better if there are directives from superiors/ principals and supervisors through collegial relationships, in a harmonious way of collaboration, under the guidance and direction of the principal and supervisor [20-23].

The conditions above show that understanding the most complex cognitive levels then perform certain psychomotor, the need for certain thinking skills, attitude and psychomotor, from previous experience, through hard work, more intensive and harmonious guidance and direction [16,18,19,24-26]. Other results from the implementation of SUCCESS-ME model cause all components in educational organizations, start to implement standards and regulation-based educational activities, to achieve quality results [11-14].

These educational activities have been through collegial relationships that are harmonious, conducive, mutually supportive, complementary, and complementary among teachers-principals-committee-supervisors to achieve certain goals [22,23,27-29]. Gradually, continuous and sustainable in order to improve 21st century skill students (4C) [15-18,25].

V. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

SUCCESS-ME model can improve the skills of the 21st century student on the curriculum structure (syllabus and RPP), and in the learning process in five target schools. SUCCESS-ME model can improve teacher skills in planning learning, implementing learning, and implementing learning assessments that can improve 21st century skill students.

B. Recommendations

SUCCESS-ME model needs to be implemented in other public and private high schools, so that efforts to improve the skills of the 21st century student in the curriculum structure (syllabus and RPP), and in the learning process can give a comprehensive impact. In order to implement the SUCCESS-ME model optimally, it must be done continuously and continuously from the moment students enter until they graduate.

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