MANAGEMENT OF CHARACTER EDUCATION OF VOCATIONAL SCHOOL STUDENTS THROUGH THE SCIENCE LEARNING SYSTEM

(Case Study at SMK Assalaam Dayeuhkolot and SMK KP Baros Arjasari Bandung Regency)

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Abstract
There are still many young generations who are trapped in the global flow of immorality resulting in the erosion of character values that the education system has not been able to stop, one of which is the science learning materials. This research aims to examine and analyze character education management, specifically the character of noble morals through planning, organizing, implementing, monitoring and evaluating management, reviewed from the theory and concepts of learning management. Through the case study method with a qualitative approach, it shows that the management of student character education through the science learning system is still constrained by infrastructure resources and teacher competence. Noble moral character education in SMK by integrating religious programs based on Islamic teachings through religious literacy programs, and some SMKs have collaborated with parents of students in the context of continuous coaching, but are still limited by time in its implementation.

Keywords: Education Management, Moral Character Education, Science Learning System.

A. INTRODUCTION
The aim of national education is not only that students have competent knowledge and skills, but have the attitude or character of a moral generation by maximizing the function of education as in Law Number 20 of 2003 concerning the National Education System article 3, states that:

National education has the function of developing and shaping the character and civilization of the nation with dignity in the framework of developing the intellectual life of the nation; aims to develop the potential of students to become human beings who believe
and fear God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens (Depdiknas, 2003).

The young Indonesian generation is currently facing the flow of global information exchange with rapid technological advances, both positive and negative, especially information that is not in accordance with the culture and noble values of the nation so that it can threaten the morale of our young generation. Not a few of our younger generations have obtained a myriad of achievements and made the nation proud, but on the other hand, not a few of our younger generations are still trapped in immoral behavior that is increasingly visible and clear in the midst of our lives such as brawls, misuse of narcotics, free sex, and other juvenile delinquency that can be found directly or through various media.

According to the Bandung Police Chief, Kombes Pol Hendra Kurniawan (Tuesday 31 December 2019), said:

Narcotics trafficking and abuse cases target every region in Indonesia, including Bandung Regency. Throughout 2019 alone, he said, the Bandung Police staff succeeded in uncovering a number of cases of drug trafficking and abuse in the Bandung Regency area. The number of cases that were successfully disclosed in 2019, reached 140 cases. The number is up 23 percent compared to last year which only reached 114 cases (Kasus Penyalahgunaan Narkoba di Kabupaten Bandung Meningkat 23 Persen di Tahun 2019, 2019)

Educational activities and the learning process must be able to encourage students to interpret the nature of themselves through interaction with the social and natural environment around them so that the character of students is moral, and one of the subjects in schools related to character is the subject of Natural Sciences (IPA). Science subjects in the Appendix to the Regulation of the Director General of Primary and Secondary Education, Ministry of Education and Culture Number 07 of 2018 concerning Vocational High School (SMK) / Vocational High School (MAK) Curriculum Structure, Science content subjects are basic subjects in the vocational field known as Applied Science. Therefore, Applied IPA has the same characteristics as IPA in general.

Samatowa states, "Science is a science that deals with systematic symptoms and objects that are arranged regularly, generally in the form of a collection of observations and experiments". Some of the characteristics in science subjects include: (1) theories and principles in science learning are only useful if they are in accordance with existing facts. (2) gives the understanding that there is a relationship between facts and observations that allows the preparation of predictions before arriving at a conclusion. (3) the theory compiled must be supported by scientific facts and proven data. (4) gives the meaning that the theory of science is not the final truth, but will change on the basis of the theory's supporting tools (Samatowa, 2006. p. 2).

Science learning will succeed in providing meaning if in the process it provides opportunities for students to learn, gain experience and be able to think and act naturally. According to De Vito, et al, quoted by Samatowa, "A good science learning must link science with students' daily lives." (Samatowa, 2006. p. 146). Teachers provide opportunities for students to ask questions, express students' ideas or arguments, build
curiosity about everything in their environment, build skills, and raise students' awareness that learning gives meaning to themselves. This, as according to Mulyasana states, character education development is divided into four pillars, namely: 1) teaching and learning activities in class, 2) daily activities in the form of cultural development of educational units, 3) co-curricular activities and / or extra-curricular, as well as 4) daily activities at home and community. With character education, a child will be emotionally intelligent. So in science learning, students not only get knowledge or various facts and memorize them, but students are required to actively use their minds in studying natural phenomena (Mulyasana, 2011 p. 266).

To give meaning to students from educational activities and the learning process carried out, it is necessary to have a management through good character education management in order to form a moral character of students according to the character values contained in science. Management according to Millet in Sukarna is a process of mentoring and facilitating people who work in formal groups to achieve a desired final goal (Sukarna, 2011. p. 2). The final goal is the output of a process that is carried out in the form of a product or service through guidance in the direction of the goals to be achieved, as well as the facilities provided to support activities. In addition, management according to Terry quoted by Sukarna, is the achievement of goals that have been set through the efforts of others. The position of the members in the organization has a strategic role, so support for member activities can give birth to the quality of organizational performance in achieving goals (Sukarna, 2011. p. 3). As for Hasibuan provides an understanding, "Management is the science and art of regulating the process of utilizing human resources and other sources effectively and efficiently to achieve certain goals". This opinion can be said that, in management there is a skill / expertise and methods / methods to achieve goals through the use of resources effectively and efficiently, and the task of the leader as a leader, manager is to mobilize and encourage members to want to work and try to use resources. effectively and efficiently (Hasibuan, 2017. p. 2).

The purpose of implementing management in education is how to manage educational activities in order to achieve the goals and the essence of education is the learning process. Learning according to constructivism theory is the process of constructing knowledge gained from experience, learning activities emphasize the learning process rather than results. The concept of learning in the 2013 Curriculum to build attitudes, knowledge and skills through observing, questioning, reasoning and trying is scientific learning, and this is the idea of constructivism learning theory. The principles of constructivism learning as stated by Driver & Bell in Waseso, include: (1) learning outcomes are highly dependent on the learning environment and existing knowledge possessed by learners. (2) learning is the formation of meaning by constructing or constructing the relationship between the knowledge already possessed by the learner and the knowledge that is being studied. (3) this process takes place continuously and actively. (4) learning involves the learner's willingness to accept the knowledge that is being studied, so that learners are responsible for learning, and (5) learning experiences and language skills affect the pattern of meaning that has been constructed (Waseso, 2018. p. 63).

Conceptually, the application of management in education is carried out through management steps, namely through: planning, organizing, implementing, and supervising or controlling.
a. Planning

Planning is the process of determining what should be achieved and how to make it happen. Harold Koontz and Cyrl O'Donnel in Hasibuan say, planning is the function of managers to choose goals, policies, procedures, programs from various alternatives (Hasibuan, 2017, p. 92). In formulating planning according to Archive (2007) quoted by Hasan Basri and Rusdiana, it consists of five steps, namely: a) determining the input to be obtained (entry behavior), b) determining objectives, c) formulating activity steps, d) selecting and determining evaluation tools, and e) determining the structure and sequence of materials or activities (Hasan & Rusdiana, 2015, p. 84). In educational institutions, raw input is the student who will be processed, take management steps, measure success and compile learning material so that student competencies are formed.

b. Organizing

Organizing is the distribution of duties and responsibilities as well as the delegation of authority to a person or group of people to carry out activities more specifically based on their expertise. According to Sudjana (2005: 105) organizing is an activity serving the activity process by placing people who have the ability to achieve goals. In the context of education, organizing is giving responsibility to school members according to their respective fields and main duties and functions. Educational institutions have various elements that are integrated in a system that must be organized properly and appropriately, including goals, personnel, technology management, students, curriculum, money, methods, facilities, and external factors such as society and the socio-cultural environment.

c. Actuating

Actuating according to Terry in Sukarna, is to organize or motivate all group members to want and try hard to achieve goals sincerely and in accordance with leadership planning and organizational efforts. In education, implementation management is a teaching and learning activity, and all educators and education personnel are willing and trying hard to achieve learning objectives, namely the formation of student character sincerely according to the planned learning program and the main tasks and functions in the school organizational structure (Sukarna, 2011, p. 82).

d. Controlling

Supervision or control according to Harold Koontz in Hasibuan, is a measurement and improvement of the work implementation of subordinates so that plans that have been made to achieve company goals can be implemented. In educational institutions, supervision can be interpreted differently as supervision of learning activities, as an effort to: a) an effort to overcome the obstacles faced by educators in the learning process. b) Assistance and guidance to educators. c) Supervision in the form of effective suggestions, d) determining follow-up activities and carried out periodically (Hasibuan, 2017, p. 241).
In essence, education is a process of emotional maturation of students. Sanusi says that the basic human character reflects a person who can be trusted, respect and care, care, responsibility, honest, sincere, courageous, diligent, disciplined, visionary, fair, and has integrity. Honesty, courage, and discipline in every action need a strong encouragement, not only carrying out the duties and responsibilities they carry, but driven by a value that refers to religious (theological) values (Sanusi, 2014. p. 74). Thomas Lickona argues, good character consists of knowing goodness, wanting goodness, and doing good (Lickona, 2013. p. 72). Likewise Ramli argues that character education has the same essence and meaning as moral education and moral education (Ramli, 2003. p. 84).

Therefore, in the implementation of educational management, there are at least several important elements, including: first, the education curriculum. In Law No. 20 of 2003 on the national education system article 1 paragraph 19, it is stated that: "The curriculum is a set of plans and arrangements regarding the objectives, content and learning materials as well as the methods used as guidelines for implementing learning activities to achieve certain educational goals". Second, the competence of educators. Quality teachers at least master teaching materials, methodology, evaluation systems, and learning psychology. A good teacher is not just a smart teacher, but can teach students. Good teachers are not just teachers with character, but teachers who are able to shape the character of their students. Teachers must be able to develop learning with a variety of backgrounds, abilities, understanding, experiences, interests, motivation, learning styles and speed of learners with effective learning strategies. For this reason, the teacher competency standards according to Law No. 14 of 2005 on Teachers and Lecturers, consist of pedagogical competence, professional competence, social competence and personality competence. Third, infrastructure. The availability of the quantity and quality of learning infrastructure is very influential for the achievement of educational goals. Fifth, Principal Leadership. The principal as a manager, leader, and supervisor must be able to act out their positions and responsibilities. To produce quality activities and win the competition, the principal must have a spirit, a competitive attitude in carrying out his duties, fight for excellence and a point of perfection, uphold the principles of honesty, professionalism, and trustworthiness (Depdiknas, 2005).

Based on the explanation above, the focus in this study is the character education management of vocational high school students through the science learning system in Bandung Regency related to noble morals by reviewing and analyzing based on character education planning, organizing character education, implementing character education, supervising character education, and evaluation of character education management of vocational students through the science learning system.

B. METHOD

This research uses a case study method with a qualitative approach in assessing, analyzing and discovering the concept of learning from moral phenomena that occur according to the alarming facts of today's young generation. Data collection techniques are carried out through interviews, observation and documentation study. The research location is SMK in Bandung Regency, and the objects in this research are the Principal, Teachers and Students. Data analysis in this study is through data reduction, data display, data triangulation, and conclusion drawing, and data verification. Trustworthiness of research results can only be achieved if it meets four criteria, namely: credibility, dependability, confirmability, and transferability.
C. RESULTS AND DISCUSSION

Character Education Planning

Planning is the selection and linking of facts, making and using assumptions by describing and formulating activities that are believed to be achievable for future goals by determining goals, policies, procedures and programs. Character education of vocational students through the science learning system in Bandung Regency is planned in the vision, mission and goals of education based on the national education system and Islamic religious education, guided by the 2013 curriculum with a scientific learning approach, has the resources of educators and education personnel, as well as learning infrastructure for the field of expertise, planning religious programs to form the noble character of students according to Islamic teachings so that students have religious attitudes and social attitudes in addition to expertise in the field of expertise through the learning process with the methods of lectures, discussions, group work, experiments and assignments developed by science teachers in the syllabus and RPP. Planning for character education for vocational high school students in Bandung Regency there are still weaknesses, including some teachers who have not met competency and qualification standards, that is, some teachers do not match their science and bachelor degree education backgrounds, even diplomas, and there is no special science practicum facility because they are oriented to support learning The field of expertise of the department, as well as the science teacher learning plan have not been supported by documentation of the syllabus and lesson plans which serve as guidelines in implementing the teaching and learning process. Even so, the formation of noble moral characters for vocational high school students in Bandung Regency is planned through programs or religious literacy according to morals in Islam.

Organizing Character Education

Organizing is related to the placement of people who are considered competent in carrying out main tasks and functions according to their assigned positions in the organizational structure to support organizational activities and achieve goals. The main duties and functions are in order to overcome the limitations of the manager and the implementation of activities in accordance with their respective fields in order to carry out activities that are effective and run efficiently. In general, the purpose of organizing is to achieve business, coordinated activities by implementing duties and relationships of authority. The existence of this organization is expected so that each member can improve their skills in handling tasks that are assigned to them not haphazardly, not in accordance with the area of expertise, and the occurrence of overlapping activities or main tasks and functions. The formation of coordination, can facilitate supervision, maximize specialization, save costs, and increase harmony among members are the main objectives of organizing. Organizing the character education of vocational students through the science learning system in Bandung Regency by forming a school organizational structure according to the regulations as a formal institution, and each of them has a main task and function that has been regulated in legislation to support the effectiveness of educational activities. The main tasks and functions in the school organizational structure consist of the principal, field representatives, surgery, and administrative staff. The subject matter is organized through meeting stages according to the lesson plan although not all science teachers have lesson plan guidelines.

Implementation of Character Education
Actuating in management is an integrated activity process of all components in a joint activity to achieve the goals that have been planned and organized. These components are school resources consisting of: people (man), materials (materials), machines / equipment (machines), methods / methods of work (methods), capital money (money), information (information) in one unit process. The implementation of character education for vocational students through the science learning system in Bandung Regency is in the process through planning, implementation, and evaluation and assessment. The planning of the teaching and learning process of science teachers has prepared a lesson plan through the syllabus and lesson plans although not all teachers have the learning plan document, the teaching and learning activity plan is based on previous experience. In the implementation of the teaching and learning process, where the teachers before carrying out the learning process pursue religious literacy activities to read and memorize the alquran, and other activities, then carry out the teaching and learning process consisting of preliminary, core and closing activities. The evaluation of the results of learning activities on attitudes, knowledge and skills of students is carried out through academic tests and direct observation related to student behavior in participating in the teaching and learning process.

Teaching and learning activities are not maximal, especially applying learning methods through practicum activities due to lack of support for resources for practicum activities, although in general the character building of students is supported by skills education and religious activities. In the learning process, science learning material requires accuracy, persistence, motivation and requires students to always think in solving problems. Schools and teachers have not been maximal in integrating by heart, by the feelings and thoughts of students in the science learning process. In addition, science subjects are only limited to class X and are valid for one semester.

The lack of maximum implementation of teaching and learning activities will certainly have an impact on learning outcomes where teachers are not ready to carry out quality teaching and learning processes because they have other tasks, of course, have an impact on learning outcomes. Likewise, the unavailability of experimental activities or student practicum which certainly hinders student learning motivation, students' deep curiosity to develop knowledge that can provide meaning to students from learning about theories and concepts by trying in scientific activities. Scientific activities in the learning process are the main requirements in scientific learning activities that can develop students' attitudes, knowledge and skills.

**Supervision of Character Education**

High school / vocational school age is a period where someone who is still experiencing emotional instability who needs guidance, guidance and direction from school, family and environmental support with character to support the formation of a stable and stable emotional attitude with knowledge, skills and moral values in order to have independence and be able to apply faith, knowledge and charity in life. Supervision of school activities is essentially guiding, coaching or directing educators, educational staff and students to carry out activities that are their main function. The teacher carries out teaching and learning activities according to the learning activity plan and runs effectively, while students can gain knowledge or understanding through the learning methods applied by the teacher and can be demonstrated through student attitudes and behavior. Learning activities are the
core of educational activities that need to be supervised so that each activity runs effectively as planned, as well as being able to prevent problems that arise. Various activities, objectives and problems contained therein, of course, the effectiveness of the supervision carried out.

Supervision of character education for vocational students through the science learning system in Bandung Regency is guided by the standards of supervision and assessment, as well as indicators of success according to the planned program. The standard of character education supervision at SMK in Bandung Regency is planned to apply the principles of assessing, directing, and helping teachers and students in the learning process. However, supervision to shape student character at SMK in Bandung Regency has not run optimally because it is still oriented towards the teaching and learning activities of teachers, the presence of students in participating in the learning process in class, and to measure student competence according to indicators of success, still using test results compared to direct observation. Supervision outside the school, some schools collaborate with parents of students.

**Evaluation of Character Education Management**

The management of character education at SMK in Bandung Regency has several supporting factors, including: (1) Infrastructure in the field of skills is good. (2) Some schools collaborate with parents of students, (3) there are religious literacy activities. (4) Students are accustomed to doing social activities. As for the obstacles to moral character education through the science learning system, including: (1) science supporting infrastructure is still minimal, (2) teachers have difficulty developing learning methods due to the lack of infrastructure, scope of material and competence, (2) diverse student backgrounds, (3) some science teachers have not been supported by the lesson plan, and (4) the time for the learning process is limited.

Of the several inhibiting factors, efforts were made, including strengthening character education through religious literacy activities according to the policies of each school, including through: (1) collaboration with parents of students to monitor each other's morals, (2) students are accustomed to carrying out activities Islamic holidays and social activities, (2) encouraging teachers to improve and develop competence, (3) learning in the open through interacting with the environment, (4) utilizing infrastructure in the field of expertise of the department, (5) giving students additional assignments. The efforts made by the school are due to the very minimal support capacity of the science learning system, both in terms of infrastructure and competence of educators, so that efforts are made to shape the character of students with noble character through religious literacy activities according to the established programs.

The efforts made by schools and teachers in shaping the noble character of students have a good influence with the support of religious literacy activities through planning, implementation, and supervision, as well as collaboration with parents of students. Thus that, education for the noble character of students through the science learning system at SMK in Bandung Regency does not yet have the supporting resources to shape student behavior directly on the characters according to the values of natural science characters, but character education for the formation of noble moral characters of students is supported by activities religion according to the teachings of Islam.
D. CONCLUSIONS

The management of character education for vocational students through the science learning system has not been maximized because it is still constrained by infrastructure resources and teacher competence. In its implementation, character education integrates the science learning system with fostering noble character of students through religious programs based on Islamic teachings, and some vocational schools have collaborated with parents of students in the context of sustainable education. In particular, character education for vocational students through the science learning system is as follows:

1. Planning is guided by the goals of national education and the 2013 curriculum according to the vision, mission and goals of the school, by integrating the values of natural science characters into diversity programs to foster the noble morals of students according to Islamic teachings. However, this planning has not been supported by the availability of science learning infrastructure.

2. Organizing through the school organizational structure and science lesson plans. However, the organization of some teachers has not been supported by standards of teacher qualification and competence.

3. Implementation of the teaching and learning process, starting with religious literacy activities, then carrying out preliminary activities, core activities, and closing activities. However, the implementation of the teaching and learning process, some science teachers have not been supported by the syllabus and lesson plan learning plan documents as guidelines for the implementation of the teaching and learning process.

4. Supervision through tests and observations with the principle of supervision, but the implementation is not yet optimal because it is still oriented towards the implementation of teacher teaching and learning activities, and student competency assessment based on test results and face-to-face class activities.

5. Evaluation of character education management still finds weaknesses in the management stage with the lack of school resources to support student character education through the science learning system. The available learning infrastructure to support the learning process in the field of expertise of the department, and some teachers who teach science subjects have not met the competency standards and qualifications for the field of expertise. Although character education is supported by a religious literacy program, it has limited time to implement it.

Suggestion; the management of character education for vocational students through the science learning system needs the support of the government, school principals and teachers. The government needs to study and develop policies related to SMK IPA which contain values to form SMK graduates besides being competent in certain fields of expertise, also having noble moral characters. The principal should facilitate the learning process so that science values can shape the character of students with noble character. Teachers have leading and strategic roles, duties and responsibilities in shaping student character through the implementation of the teaching and learning process. For this...
reason, competency support is needed in carrying out teacher professional duties and producing a quality learning process through education and training, teacher forums, or further studies.

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