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TEACHERS' PERFORMANCE IN SCIENCE LEARNING MANAGEMENT INTEGRATED WITH CHARACTER EDUCATION

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ABSTRACT

The research aims at revealing the performance of teachers in science learning management integrated with character education. This study employed qualitative research method. Based on the result of the t-test of the correlation coefficient, this study obtained t value 4,210 with significance 0,001. The significance value 0,001 < 0,05 showed that there is influence from teachers' performance in arranging learning media integrated with character education to the teachers' performance in science learning. The conclusion of research stated that the performance of science teachers in junior high schools in Semarang City in integrating character education is categorized into a very good category with average score 85,05.

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Keywords: teachers' performance, science education system, character education

INTRODUCTION

The word "teacher" in Javanese cultural terms has a philosophy of "digugu" and "ditiru" (imitated). The term "digugu" implies that a teacher must possess sufficient competencies, while the term "ditiru" (imitated) implies that teachers' personality should have good character (Zulfikar, 2009; Saddhono & Rohmadi, 2014). The good competence and character of teachers can result in better performance in the quality of learning. In fact, qualified teachers will affect on improving the test scores of learners, providing an emotionally supportive environment that contributes to the social and emotional development of learners, managing classroom behavior, delivering accurate content, and supporting critical thinking

*Correspondence Address E-mail: barokahis@yahoo.co.id (Blazar, 2017; Cohen, 2011; Pianta & Hamre, 2009). The higher the competence and character of the teacher, the more qualified achievement of the teachers' performance. The high teachers' performance and achievement will determine the civilization character of a nation in the future (Hajar, 2017).

The performance of science teachers in Indonesia is inseparable from existing regulations. In line with the Act No. 20 of 2003 on National Education System in Article 3 which reads "National education has a function to develop the ability and instill the character and civilization of dignified nation in order to educate the nation. Moreover, it aims to develop the potential of learners in order to become a human being who believes and cautious to God Almighty, has a noble character, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen. " The article shows that the performance of teachers in carrying out the task of learning is not only to transfer knowledge (cognitive), but also instill the character education to learners. However, realizing the goal of national education apparently faces many problems. For example, the case of bullying in school.

The problem of the learners' character becomes an important part that must be strengthened through science learning. This is supported by the research results by Sardjijoa & Hapzi (2017) who integrated the characters in learning Science through the process skills activities that can strengthen scientific attitudes. In the field of learning in Indonesia, originally character education is charged to two subjects, namely religion and civics. However, in reality, the instilling process and character formation of learners are not sufficiently integrated through a particular lesson but need to be integrated into all the lessons (Judiani, 2010; Ahmadi et al., 2017). There are several things that make character education do not optimal if it is only integrated through two lessons, namely: (1) the two subjects tend to only provide knowledge about the values through the subject matter/substance; (2) learning activities in both subjects are generally not sufficient, encouraging the internalization of values to each learner so that they behave formidably; and (3) the two subjects are not sufficiently sustained in the instilling process of the the learners' character because the instilling process of character requires a habituation that will become a culture and morals for learners (Khusniati, 2012; Akhwan, 2014; Julaiha, 2014).

The disadvantages of character education can at least be parsed by involving more subjects, even all subjects. This refers to Koesoema (2012) which suggests that there are four ways in understanding character education, namely: (1) character education as a special subject; (2) character education as a grouping of subject; (3) character education as a requirement of the state; (4) character education as the process of education itself. Instilling good characters to the learners is not new. The study of various weaknesses and advantages of each model of character education has been obtained to the present selection of education which is done through the integration of various subjects. One of them is the integration of character education carried out in science learning.

The selection of science lessons integrated with character is in line with the challenges of the 21st century with its rapid development of technology applied in various areas of life in society. Therefore, it is necessary to find a way of learning that can prepare learners who have literacy on science and technology and who are able to think comprehensively in solving real-life problems. Therefore, learners are required to master science in an integrated manner (Koballa & Chiapetta 2010; Parmin et al., 2015).

Such an IPA learning substance provides an opportunity for character education to provide guidance on problem-solving in real life. That is, solving the problems generated through learning science is not necessarily rigid and can be harmful to socio-cultural conditions. Only with character education, various issues in the community can be resolved peacefully by referring to the principles of science. These two relationships should be applied in science learning in schools. Thus, the implementation of science learning integrated with character education can be carried out by the teachers.

Referring to the background of this study, the problem in this study is; How is the performance of teachers in the science learning management integrated with character education? The data of the teachers' performance analyzed in this research is science teachers at junior high school in Semarang City. Teacher performance aspects analyzed in this research include; the ability of teachers in preparing lesson plans, implementing learning, and assessment of learning. The objective of this research is to see teachers' performance in science learning integrated with character education. The success and the various weaknesses of the policy of applying character education to various subjects can at least be understood. Therefore, the teacher's performance in the science learning management integrated with character education has an urgency in determining the implementation of character education policy which up to now is still being questioned by various parties.

METHODS

This research employed qualitative research. The data are teachers' performance in science learning management integrated with character education that includes planning, implementation, and assessment phase. Therefore, the sources of data in this study are 52 science teachers from 26 schools in Semarang City. The school categories in this study are heterogeneous from those located in downtown and suburbs. Semarang city is chosen as the research site because it is the capital of Central Java Province. Semarang city can be used as a barometer of character education quality with geographic typology and varied school quality. To complete the performance data of junior high school teachers in science learning management integrated with character education, documentation studies on learning tools in a class were developed to meet the availability of valid and reliable data.

Data were obtained by using questionnaire instruments, interviews, guidelines and documentation studies. Data analysis is done by following the logic of qualitative approach. The correlation coefficient t test is done in this research to determine whether or not there is an influence of teachers' performance in arranging integrated learning tool with character education in science learning. The performance of Science Teachers in Semarang City in integrating character education is categorized into four groups: excellent, good, sufficient, and lacking. Data analysis employed a qualitative approach which refers to Sugiyono (2012).

RESULTS AND DISCUSSION

The national commitment to the need for character education is part of the mandate of the national act that should be implemented. Khusniati (2012) states that the way of integrating character education in the learning process is carried out from the planning, implementation, to the evaluation of learning. The performance for aspects of learning planning of the 52 science teachers in this study is presented in figure 1.



Figure 1. ScienceTeachers' Performance in Semarang City in Planning Science Learning Integrated with Character Education

In preparing a learning plan that integrates the character which is done by 52 junior high school teachers in Semarang City, 18 teachers perform very well, 26 teachers perform well, and 8 teachers perform moderately. None of them performed inadequately. Teachers' performance in learning management integrated with character education can be seen from the analysis stage of basic competence, syllabus development, preparation of learning, implementation plan, and preparation of teaching materials. This stage is the most crucial stage in science learning management integrated with character education. The success and failure of integrated science learning is highly dependent on the planning (Krajcik, et al., 2008 & 2014). This role of teachers in planning should be based on the goals integrated with character education.

Starting from the Basic Competence Analysis, this activity is done to select the character values that match the basic competence which is going to be used. The development of syllabus is done by revising the syllabus provided by the government by giving insertion of character values on the formulation of objectives, indicators, learning steps, and assessment. Furthermore, the preparation of teaching materials is done by selecting teaching materials that contain character education if the resource is available. However, if the sources are not yet available, teachers could develop their own teaching materials to be integrated with character education. The following table presents the planning stage of teachers' performance in science learning management integrated with character education.

Teacher Performance	Good (%)	Very Good (%)
Analysis of basic competence of learning science integrated with character education	92	8
Development of science learning syllabus integrated with char- acter education.	92	8
Preparation of the implementation plan of learning science integrated with character education.	92	8
The development of science teaching materials integrated with character education	68	32
Preparation of assessment of science learning outcomes inte- grated with character education	82	18

Table 1. Teacher Performance in Planning Stage of Science Learning Integrated with Character Education

At the planning stage, teachers' performance in science learning integrated with character education is more directed to the fulfillment of documents for administration completion. At this level, the performance of teachers is said to be very good in meeting the standards of planning on learning management. Kartowagira (2011) states that preparation of administrative documents at this stage of planning is a part of competence that is always honed and developed from undergraduate, professional education, and other types of training/workshop. Thus, the performance at this stage of planning is assured to have met the established standards.

In terms of the aspects of learning implementation, the performance of the 52 science teachers in this study is presented in figure 2.



Figure 2. Performance of Science Teachers in Semarang City in Implementing Science Learning Integrated with Character Education

The research subjects were 52 teachers of junior high school, 15 people performed very well, 25 performed well, and 12 performed moderately, while underperformers were not found in the results of this study. This stage is the implementation stage of the planning stage. This stage consists of preliminary activities, core activities, and closing activities. From preliminary activities to closing activities, the conducted learning activities were already interesting and well-presented. However, there are some gaps that teachers forget about when teaching. Instructions for performance are minimally delivered and the assessed attitudes are not explained first. Teachers seem to entrust their assessment to students. Supposedly, teachers have separate judgments when the learners are following the lesson. This deficiency is due to the fact that there are still teachers who do not yet have a good understanding of the science learning management integrated with good character values. Therefore, the performance of teachers in the implementation of science learning integrated with character education is still less relevant to the planning stage. In the aspects of learning assessment, the performance of the 52 science teachers in this study is presented in figure 3.



Figure 3. Performance of Science Teachers in Semarang City in Planning Science Learning Integrated with Character Education

The performance of 52 junior high school teachers in Semarang City, in terms of the assessment of learning that integrates the character education, 16 people performed very well, 26 performed well, and 10 people performed moderately, while underperformers were not found from the results of this study. Teachers' performance at the assessment stage is done in the form of assignment to evaluate and give reinforcement to the studied materials and also give emphasis on character education that must be instilled in the students. This assessment is also used by teachers to facilitate learners to learn more about materials' substance and the application of materials used to address real-life issues that exist around (Holmqvist, 2011). From here, the instilling process of character education can be really seen by the teacher. Thus, contextual learning assessment can assist in the application of integrated character education in learning.

Science learning management integrated with character education is not an easy matter due to the fact that many students find difficulties in learning science (Hewitt et al., 2007; Marope, 2015). Therefore, the performance of science teachers is increasingly hard to make the difficult ones become easy to understand. On the one hand, integration in science learning becomes an additional task that needs to be paid attention to science teachers in performing ideal teacher performance. To that end, teachers' performance in science learning management integrated with character education can be improved by guiding the planning process, execution, and assessment. A guiding model that suits the teachers' duties and functions are to use a lesson study model. In this case, teachers' performance can be assisted by other teachers who join the Teachers Training Center at school, city and provincial levels.

Although there is a teacher training system like MGMP, the system has not been fully utilized for various reasons. Thus, the main problem is how to optimize and empower teachers who are members of the teacher forum in the most realistic ways. Prodjosusanto et al. state that there are four principals in reforming MGMP, namely: (1) the development of professionalism should be the point of attention, (2) the frequency of activities should be increased (every two weeks); (3) the type of activity should be more practical and thought- challenging; (4) the system used must be changed from a centralized system into a clump system or region. Furthermore, it provides an alternative solution by using a lesson study framework as an instrument of enabling group work in the MGMP, especially the MGMP schools (Hendayana et al., 2007). Lesson study activities can be used as a model for the development of the educator profession through collaborative and sustainable learning based on the principles of collectivity and mutual learning to build the learning community (In'am, 2009; Kabassi et al., 2016).In this study, science learning plan integrated with character education is further analyzed to understand whether or not it influences the science teachers' performance in science learning because the problems, like the learning tools, have not been optimally applied in classroom learning.

Table 2. Influence of Science Teacher Ability in Developing Learning Tool Integrated with Character

 Education to the Performance of Learning Implementation

Science Learning integrated with Character	Unstandardized Coefficients		Standardized Coefficients		
	В	Std. Error	Beta	Т	Sig.
(Constant) Effectiveness of Science Learning integrated with Character	19,32 4 0,350	3,1292 0,067	0,530	4,458 4,210	0,001 0,001

The result of t test of correlation coefficient showed the t value 4,210 with significance 0,001. Because the significance value is 0,001 < 0,05, it can be concluded that there is an influence of teachers' performance in creating learning tool integrated with character education to its performance in science learning.

CONCLUSION

Teachers' performance in science learning management integrated with character education in the aspetc of developing learning plans, aspects of learning, and aspect of assessment are categorized into the good category. Learning plan integrated with character education has not been fully implemented, meaning that science teachers need to be more consistent between planning and execution. During the research, the study found that target research teachers have been able to include characters in the form of questions used to determine the success of cognitive aspects.

REFERENCES

- Ahmadi, F., Sutaryono, S., Witanto, Y., & Ratnaningrum, I. (2017). Pengembangan Media Edukasi "Multimedia Indonesian Culture" (MIC) Sebagai Penguatan Pendidikan Karakter Siswa Sekolah Dasar. Jurnal Penelitian Pendidikan, 34(2), 127-136.
- Akhwan, M. (2014). Pendidikan Karakter: Konsep dan Implementasinya dalam Pembelajaran di Sekolah/Madrasah. EL TARBAWI, 8(1), 61-67.
- Blazar, D., & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational Evaluation and Policy Analysis*, 39(1), 146-170.
- Cohen, D. K. (2011). *Teaching and its predicaments*. Harvard University Press.

- Hajar, E. A., & Mukhtar, M. (2017). Evaluation of Teacher Performance Appraisal Program. Journal of Education Research in Administration and Management (JERAM), 1(1), 11-11.
- Hendayana, S., Sukirman, S., & Karim, M. A. (2007). Studi dan Peran IMSTEP dalam Penguatan Program Pendidikan Guru MIPA di Indonesia. *Educationist*, 1(1), 28-38.
- Hewitt, P. G., Lyons, S. A., Suchocki, J. A., & Yeh, J. (2013). Conceptual Integrated Science: Pearson New International Edition. Pearson Higher Ed.
- Holmqvist, M. (2011). Teachers' learning in a learning study. *Instructional Science*, *39*(4), 497-511.
- In'am, A. (2011). Peningkatan Kualitas Pembelajaran melalui Lesson Study berbasis Metakognisi. Jurnal Salam, 12(1), 125-135.
- Judiani, S. (2010). Implementasi Pendidikan Karakter Di Sekolah Dasar Melalui Penguatan Pelaksanaan Kurikulum. Jurnal Pendidikan dan Kebudayaan, 16(9), 280-289.
- Julaiha, S. (2014). Implementasi Pendidikan Karakter dalam Pembelajaran. Dinamika Ilmu: Jurnal Pendidikan, 14(2), 226-239.
- Kabassi, K., Dragonas, I., Ntouzevits, A., Pomonis, T., Papastathopoulos, G., & Vozaitis, Y. (2016). Evaluating a learning management system for blended learning in Greek higher education. *SpringerPlus*, 5(1), 101.
- Prodjosantoso, A.K., Aznam, N., Arty, I.S., Sugiyarto, K.H., & Yatiman, P. (2009). Prosiding Seminar Nasional.
- Kartowagiran, B. (2011). Kinerja guru profesional (Guru pasca sertifikasi). Jurnal Cakrawala Pendidikan, 3(3), 463-473.
- Khusniati, M. (2012). Pendidikan Karakter Melalui Pembelajaran IPA. Jurnal Pendidikan IPA Indonesia, 1(2), 204-210.
- Koballa, T. R., & Chiapetta, E. L. (2010). Science Instruction in The Middle and Secondary Schools.
- Krajcik, J., Codere, S., Dahsah, C., Bayer, R., & Mun, K. (2014). Planning instruction to meet the intent of the Next Generation Science Standards.

Journal of Science Teacher Education, 25(2), 157-175.

- Krajcik, J., McNeill, K. L., & Reiser, B. J. (2008). Learning-goals-driven design model: Developing curriculum materials that align with national standards and incorporate project-based pedagogy. *Science Education*, 92(1), 1-32.
- Marope, P. T. M. (2015). Context and participation in curriculum, learning, teaching and assessment.
- Pianta, R. C., & Hamre, B. K. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational researcher*, 38(2), 109-119.
- Saddhono, K., & Rohmadi, M. (2014). A sociolinguistics study on the use of the Javanese language in the learning process in primary schools in Surakarta, Central Java, Indonesia. *International Education Studies*, 7(6), 25.-30

- Sajidan, S., Ashadi, A., & Sutikno, S. (2015). Skill of Teacher Candidates in Integrating The Concept of Science with Local Wisdom. Jurnal Pendidikan IPA Indonesia, 4(2), 120-126.
- Sardjijoa &Hapzi. (2017). Integrating Character Building into Mathematics and Science Courses in Elementary School. International Journal of Environmental & Science Education, 12(6), 1547-1552.
- Sugiyono. (2012). Metode Penelitian Pendidikan, Pendekatan Kuantitatif, Kualitatif, Research dan Development. Bandung: Alfabeta.
- Zulfikar, T. (2010). The making of Indonesian education: An overview on empowering Indonesian teachers. *Journal of Indonesian Social Sciences and Humanities*, 2(1), 13-39.