Developing Academic Supervision Model Assisted by The Information System Management on Geography Teachers of Senior High School in Pekalongan Regency

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Article Info	Abstract
	The development of academic supervision model assisted by the Information System Management is an academic supervision model by using a web tool. The purpose of this study is to describe the implementation of current supervision, develop a model, validate the model and analyze the practicality of the model. The method of this research is Research and Development. In the preliminary study, literary studies, field studies and descriptions of findings' analysis were carried out. Data collection techniques were done by using interviews, questionnaires and observations. The development stage included the conceptual development, model validation involving experts and practitioners. The evaluation staged used an assessment sheet to find out the practicality of the model. Based on the results of the preliminary research, an academic supervision model assisted by the Information System Management was developed. Then the conceptual model was validated by experts and practitioners to produce valid models and then limited trial were conducted. The conclusions in this study are: (1) factual models of academic supervision still have weaknesses; (2) the model developed was validated with a very good level of validity; (3) the model developed was practical and effective to be used by supervisors to carry out the academic supervision. Suggestions from this study were expected not only to be tested on a limited scale but also can be continued a broader scale.

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INTRODUCTION

The role of a school supervisor is recently supposed to be awaited by teachers because the presence of school supervisors will be able to help teachers in facing difficulties in the learning process. Supervisor as catalysts must facilitate the implementation of various forms of roles that will improve the teaching-learning situation in the input process (Kotirde & Yunos, 2014). The process of school supervisors in helping teachers is carried out through educational supervision activities. Educational supervision is an effort in leading teachers and other officers in improving teaching, including stimulating, selecting the growth of positions and the development of teachers and revising educational goals, teaching materials and methods and teaching evaluation.

According to Government Regulation, No. 19 of 2005 article 57 stated that supervision includes managerial supervision and academic supervision. Managerial supervision includes aspects of management and administration of educational units, while academic supervision includes aspects of the implementation of the learning process. From this explanation, it is clear that the target of managerial supervision is the principal and other school staffs (educational staffs), while the target of academic supervision is the teachers (teaching staffs).

Academic supervision is a series of activities to help teachers develop their abilities in managing the learning process in order to achieve learning goals. Glickman (1981) suggests that teaching supervision is a series of activities helping teachers develop their ability to manage the teaching and learning process for the achievement of teaching goals (Widodo, 2007). There are three objectives of academic supervision: (1) Helping teachers develop their professional abilities in carrying out their main tasks and responsibilities that are implementing educational learning, (2) Improving the quality of learning through monitoring and researching the activities of the teaching and learning process in schools, so that the learning

objectives can be achieved, (3) Encouraging teachers to use all of their abilities in carrying out learning, encouraging teachers so that they have sincere attention to the duties and responsibilities of their profession.

Regulation of Ministry of Administrative and Bureaucratic Reform Number 21 of 2010 concerning School Supervisors' Functional Position and the Credit Number Chapter II article 5 stated that the main responsibility of school supervisors is carrying out academic and managerial supervisory duties in educational units which include the preparation of supervision programs, implementation of guidance, monitoring the implementation of eight National Education Standards, evaluating the guidance and professional training of teachers, evaluating the results of the implementation of supervision programs, and implementing supervisory duties in special regions.

Academic supervision is a series of activities to help educators and educational staff to develop their abilities in managing the learning process to achieve the learning goals. Academic supervision is not an assessment for educator work but helps the educators to develop their professionalism.

Academic supervision is a supervisory function that deals with the implementation of the duties of coaching, monitoring, evaluating, and guiding and professional training of teachers in aspects of teachers' competence and main tasks of teachers, in improving the quality of learning and guidance in schools. The implementation of academic supervision can be through face-to-face activities or non face-to-face activities (Barnawi, 2014: 33). Relating to the implementation of the task of mentoring and professional training of teachers, at least six times in a year and carried out on scheduled both time and number of hours needed for each activity according to the theme or type of skills and competencies of teachers to be improved (Kemdikbud, 2015: 13).

During this time the visitation or the attendance of supervisors for academic supervision relating to the implementation of

mentoring and professional training tasks for teachers has not been maximally carried out according to the rules as in the 2015 supervisor workbook. Supervisors only come when invited to the activities held by the principals' working meeting (MKKS) ahead of national examination preparation or going to school if there are certain matters when ahead of the teacher/principal's performance appraisal so that the tasks related to the implementation of guidance and professional training tasks of the teacher are almost not implemented.

The importance of the supervisor's role has not been in line with what happened in the field. Many factors become obstacles so that the performance of supervisors in guiding the teachers cannot run optimally. Uus (2011) in his research revealed that the supervision in Kuningan regency had not run optimally. In line with that Widodo (2007) in his research concluded that the implementation of supervision by school supervisors in Indonesia is still far from the theory of supervision. In Sudin's study (2008) it was stated that in terms of increasing teacher competence, supervisors have not carried out their duties and responsibilities optimally in an effort to improve teacher performance. The teacher has not yet felt the existence of guidance that was carried out by the supervisor, even though the communication has not gone well. Daryan (2013) through the Kompas daily newspaper stated several factors such as the location of remote schools, with less favorable geography, lack of intensive communication between supervisors and assisted teachers, lack of operational and transportation funding support, and safety factors during the trip and so on are quite serious problems so that the role of school supervision does not run optimally.

Academic supervision that was conducted by school supervisors is currently found several challenges in implementing supervision: (1) the number of senior high school supervisors in Pekalongan Regency is not proportional to the number of the target schools. It was known that there are 17 senior high schools in Pekalongan Regency while the number of supervisors is only

2; (2) the location of schools that are far from each other between one school and another, so that the visitation to the school in providing the guidance to assisted teachers did not run according to the plan; (3) the information related to the planning, implementation, and evaluation of supervision is not well conveyed; and (4) the communication of teacher and supervisor are only limited to the supervisor visitation.

To help school supervisors in carrying out their duties with regard to the implementation of the tasks of guiding and professional training of teachers, it can be applied to the academic supervision model assisted by information and communication technology (ICT). The implementation of ICT in education is an Information System Management (ISM). ISM itself consists of several types, including academic information systems, financial information systems, school supervisor information systems and others which are all part of ICT (Lantip, 2010: 4)

Academic Supervision Management Information System is one of the Information System Management that can be used by school supervisors in carrying out their duties both academic supervision and managerial supervision. The Academic Supervision Information System Management is intended to be a tool for school supervisors to expand their capabilities, but not to replace them.

Based on the description above, to reduce the limitations and weaknesses that occur in the process of implementing academic supervision, a study was carried out with the title "Developing Academic Supervision Model Assisted by the Information System Management on Geography Teachers of Senior High School in Pekalongan Regency".

METHOD

The development of Academic Supervision Model assisted by Management Information Systems has used the method of Research & Development based on Borg and Gall which are grouped into three main steps. First, preliminary studies, including literary

studies, field studies related to the problems to be solved and descriptions and analysis of field findings. Second, the development stage, includes formulating a development plan, determining the goals to be achieved at each stage of development and planning a feasibility study in a limited way, developing the initial formulation (design) of products to be developed, product development, expert and practitioner validation, evaluation and improvement of final products. Third, the evaluation stage, in the evaluation stage, a limited tryout was conducted to determine the practicality of the model and test the effectiveness of the model. It is clearly stated in the picture as follows.
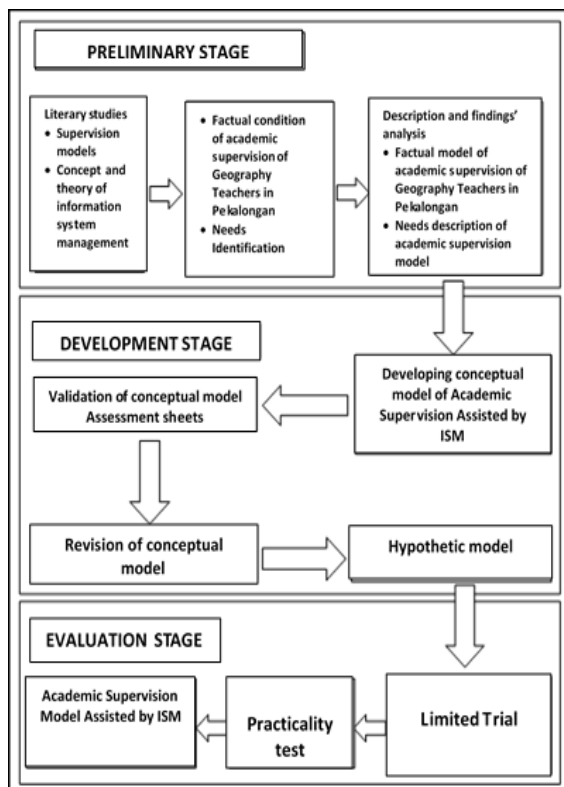

Figure 1. Supervision Model Design

The preliminary study was conducted to find out and reveal the implementation model of academic supervision that had been carried out. At this stage, several activities have been carried out such as review of supervisory documents of school supervisors, interviews with the teachers and supervisors of senior high schools in

Pekalongan and distributing questionnaires to the Geography's teachers in senior high schools in Pekalongan. Interviews were conducted with 2 high school supervisors in Pekalongan, while the questionnaire was intended for the teachers to find out the implementation of academic supervision, supporting facilities, and to find out the teacher's needs that were the academic supervision of high school geography's teachers in Pekalongan.

The instruments of the preliminary study and development were consulted and validated by the supervisor to find out the suitability and representation of the items of the instrument to be studied.

In the preliminary study phase, the objectives to be achieved were the discovery of a factual model of academic supervision and needs analysis. The data analysis technique that was used was the quantitative descriptive analysis and qualitative analysis. At the stage of model development and validation, the goal to be achieved was the development of a valid and practical model. The data analysis technique that was used was quantitative descriptive analysis. At the product testing stage, the goal to be achieved was the practicality of the supervision model that was developed

RESULTS AND DISCUSSION

The factual condition of academic supervision in Pekalongan could be summarized as follows. Academic supervision that was conducted on high school geography's teachers in Pekalongan was carried out at the initiative of the supervisor, not on the initiative of the teacher.

Academic supervision planning includes the objectives, supervised aspects, schedules and instruments. Academic supervision instruments consist of instruments for assessing learning administration. Academic supervision schedules were arranged separately by supervisors and principals. The academic supervision schedule that was compiled by school supervisors was not

synchronous with other program activities at school.

The parties that were involved in academic supervision activities were supervisors as supervisors and teachers as supervised parties. The supervisor was in charge of planning academic supervision, implementing and reporting the results of academic supervision. The teacher was in charge of planning, carrying out learning activities, accepting suggestions for improvement and following up. The task relationship of supervisors can only be seen from the socialization of the academic supervision schedule carried out with the help of the principal.

The implementation of academic supervision included socialization of the academic supervision plan, administrative examination of learning, classroom observation, evaluation, follow-up and monitoring the results of follow-up.

The socialization material consisted of academic supervision schedules and aspects to be observed in class observations. The dissemination was carried out through teacher meetings and information boards.

Academic supervision techniques were class observation techniques. The implementation of academic supervision was divided into two stages; the first is the pre-observation and the second is observation stages. At the pre-observation stage the supervisor checked the learning administration. At the observation stage, what was done was observing teaching and learning activities while assessing teacher performance in the implementation of learning.

The evaluation process that was carried out was that the supervisor presented the deficiencies found in the administration and/or learning process. At the stage of evaluation of the results of classroom observations, the supervisor gave suggestions for improvements to the administration and learning process. The dialogue to identify learning problems and finding solutions had not been done.

The teacher sought solutions to the problem of learning independently. Teacher

assistance from supervisors had not been implemented. Monitoring the results of follow-up had not been optimally implemented.

The monitoring of the follow-up results by the principal had been carried out, but the improvement in teacher performance as a result of academic supervision had not been measured. Meanwhile, monitoring of follow-up results had not been carried out by the supervisor.

The documents on academic supervision reports in schools were only in the form of schedules and supervision instruments that have been filled. The supervision report has not been used optimally to prepare the next period supervision program or to plan the development of teacher supervision.

The Academic Assisted Supervision Model of this ISM was a hypothetical model that had been revised after observing the results of limited tryout, and the suggestions from experts and also the supervisor. The ISMF-assisted academic supervision model was then piloted to supervisors and teachers. The subjects of the tryout in this study were fourteen high school geography's teachers in Pekalongan. The descriptions of samples according to gender and origin of institutions (public and private) could be seen in the following table.

Table 1. Respondents of Model Effectiveness Trial

GENDER			INSTITUTION		
	Amount	%		Amount	%
Man	6	93	Private	13	80
Woman	8	7	Public	1	20
Total	14	100		14	100

The results of the respondents indicated that all respondents stated that the model included in the classification was very feasible with the average score obtained was 4.32. Based on the results of the practicality test using the academic supervision model assisted by an ISM to the teacher, it was concluded that the teacher's perception of the academic supervision model assisted by the ISM was very good (feasible to use). The teacher strongly agrees and

supports if the school supervisor uses the model in carrying out the academic supervision toward the Geography's teacher of senior high school.

The results of testing the effectiveness of the ISM-assisted academic supervision model showed the perceptions of school supervisors and teachers of this model were very positive (feasible to use). The results of this effectiveness test indicated that the school supervisor as a model user strongly agrees to use the model in carrying out its duties to conduct the academic supervision of the target teacher. This is in accordance with the purpose of the study to produce a model that fits the needs of the current school supervisor.

The success of the implementation of the academic supervision model assisted by management information systems was in line with the conventional education supervision model in Kuala Lumpur where many things that were constrained by the problems of time distance and geographical location. The distance from each other was a problem in the implementation of supervision which has a distant geographical location (Aziz, 2014).

The description of the implementation of academic supervision that has been valid in Pekalongan was considered to be less effective in accordance with the principles of supervision due to supervision that arises based on the initiative of the supervisor, not arising from the needs of the teacher. This requires better training for supervisors as has been done in Denmark, that the majority of supervisors need better training (Nordentoft, Thomsen, & Wichmann-Hansen, 2013).

As found in the preliminary study, the academic supervision that had been valid in Pekalongan Regency could also be elaborated on the functions of management planning, organizing, implementing and reporting. It can be said that supervision as a management function cannot be separated from other management functions (Masaong, 2013). The monitoring function was associated with the functions of planning, organizing, coordinating and directing. The elaboration of academic supervision of management functions was also

in accordance with the duties of academic supervision which included; program preparation, supervision, evaluation of the implementation and results of supervision, guidance and training and preparation of reports.

Academic supervision planning that was made either by the supervisor or the principal has contained the objectives, aspects, supervision techniques, and supervision schedule. The objectives, aspects, and contents of the academic supervision instrument have been directed at improving the teacher performance in managing the learning. The aspects that were observed in classroom observation are also related to the ability of the teacher to plan, implement and evaluate learning outcomes. The teachers either directly or indirectly would certainly get good experience for the advancement of their knowledge. The teacher acquired knowledge by sharing teacher supervision experiences. Teachers learned new knowledge from others, enriched their supervisory practices, and also acquired the necessary practical skills related to the supervision process. (Bouchamma & Michaud, 2011). Supervision based on the delivery helped supervisor accountability not only for student learning but also for future results (Hauer et al., 2014)

Relating to the web, the issues around online security, confidentiality and user verification needed to be considered and discussed in the development of online surveillance services. The user's perception of security and utilities would ultimately determine the use of online surveillance services, and further investigation of user perceptions was needed (Deane, Gonsalvez, Blackman, Saffioti, & Andresen, 2015). In its service, the supervisor as a catalyst must facilitate the implementation of various forms of roles that would improve the teaching-learning situation in its inputs and processes (Kotirde & Yunos, 2014). Thus, supervision could enable professional, communal, and personal development of teachers in an inclusive learning environment (Alila, Määttä, & Uusiautti, 2016).

With this supervisory model, teachers would gain knowledge by sharing their teacher supervision experience. The participants learned new knowledge from others, enriching their supervision practices, and also acquired the necessary practical skills in relation to the supervision process. In addition, their discussion resulted in the creation of friendship and a sense of collegiality when they became agents of change (Bouchamma & Michaud, 2011).

Another important element related to planning was the emphasis on the preparation of the learning administration plan and the performance and schedule of academic supervision. Academic supervision schedule that had not synchronized with the schedule of other activities at school. As a result, supervision often cannot be carried out in accordance with the plans that had been made. This showed that integrated integrative supervision had not been fulfilled. Integrative principle contains the understanding that academic supervision was an inseparable part of the whole program to realize the school's vision and mission (Gray & Jordan, 2012).

Associated with organizing academic supervision, the parties who were acted as supervisors are the supervisors and the principals, while the supervised parties were the teachers. This is in accordance with the main tasks and functions of supervisors and principals as regulated in the applicable regulations, including the Minister of National Education Regulation No.12 of 2007 concerning School Supervisory Standards and Minister of Education Regulation No.13 of 2007 concerning Principal Standards. Academic supervision programs from supervisors were socialized with the help of the school principal. This showed that there has been a collaboration between supervisors and principals. However, cooperation is not optimal because supervision was generally seen as an institution and resources allocated for such supervision. (Memduhoğlu, Aydin, Yilmaz, Güngör, & Oğuz, 2007). There has been no coordination and cooperation since the supervision planning that caused the supervision schedule by school supervisors was often not synchronous with the school education calendar.

Based on the description above, it can be stated that most of the academic supervision activities for high school geography's teachers have been carried out in Pekalongan Regency. But as stated in the background of the study, academic supervision that had been carried out still needed help to facilitate its implementation and had not produced the teacher's performance as expected. Similarly with the academic supervision in India, Malaysia and Thailand still did not produce high levels of teacher performance (Sharma, Yusoff, Kannan, & Baba, 2011) and still need to be addressed further, the process of academic supervision of high school geography's teachers in Pekalongan Regency also needs to be addressed further. This is one of the limitations of this study. Therefore, further research was needed that meets the broader generalization requirements before this supervision model is disseminated.

CONCLUSION

Based on the results of the research and the discussion, it can be concluded that the factual model of academic supervision on high school geography's teachers in Pekalongan Regency could be described as follows. The implementation of academic supervision so far for high school geography's teachers in Pekalongan Regency originated from the initiative of supervisors or principals. The academic supervision model for high school geography's teachers in Pekalongan Regency included management functions of planning, organizing, implementing and reporting. Planning includes goals, aspects of supervision, schedules, and instruments. In organizing, there is no clear document found on the duties of supervisors, principals, and teachers in the context of achieving the objectives of academic supervision. The academic supervision reporting documents at the school was only in the form of schedules and supervision instruments that had been filled. Academic supervision reports had

not been used optimally to compile the next period of supervision programs or to plan the development of teacher supervision.

The results of the development of an academic supervision model assisted by Management Information Systems included the management functions of planning, organizing, implementing and reporting as follows. Supervision was carried out at the initiative of the teacher, not at the initiative of the supervisor or principal. Planning included the preparation of a supervision program, vision and mission, goals, aspects of supervision, instruments of academic supervision. Organizing included the determination of human resources (SDM) and the description of the duties of supervisors, principals and teachers should be clear. Reporting contains the analysis of results of supervision, maximum reporting, utilization of optimal reporting, description of achievement of targets, recommendations for guidance and documentation of activities.

The practicality model test results show that the academic supervision model assisted by Management Information System was practical to be used in academic supervision for high school geography's teachers in Pekalongan Regency. Academic supervision of high school geography's teachers in Pekalongan needed to be better handled in order to have a greater effect on teacher performance in managing the learning. The assisted academic supervision model of Management Information Systems was an academic supervision model that could be used as an alternative model of academic supervision in Pekalongan Regency. It was required supervisors or principals who were able to empower teachers and colleagues to help each other and overcome the learning problems. The new pattern of academic supervision was expected to form a work culture that always leads to improving the quality of learning in a sustainable manner.

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