Administrators' Role in management of ICT integration at secondary school in Indonesia

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ABSTRACT

The aim of this paper is to identify the concept of administrators' role in the integration management of ICT at secondary schools in Indonesia, which is whether the administrators' role in planning, organizing, leadership and controling the ICT integration at schools can run effectively and efficiently. The function of ICT in education is as a source of learning, learning aids, learning facilities, standard competence, administration system, decision support, and infrastructure which can fix the effectiveness of school management and improve the academic achievement of students and teaching staff. The absence of an ICT good design will not provide optimum benefit, even it is possible that it will be a barrier educational activity. A number of studies show that a relationship between effective management and quality schools, or in other words, management, can make the difference between an effective and efficient school. Management functions that must be performed by the administrator are planning, organizing, leadership and controlling, so that the integration of ICT in schools can actually achieve the goals that have been defined together. School-based school management proved more effective because school administrators take over educational responsibilities from the national government, regional and local strategic approach which integrate several different aspects of management to set and achieve their own educational institutions. Furthermore, the role of administrators in the information technology integration is very important especially in Indonesia which is still in the replicate level, new settings, and adjustment, like the use of technology into learning.

Keywords: *administrators, management, ICT integration*

INTRODUCTION

The development of information and communication technologies (ICT) has been recognized as management and learning supports in schools, so that management can achieve the goal effectively and efficiently, and students can succeed with high performance, but support of ICT should be integrated so that school aims can be maximum accomplished. Then, this is where the role of school administrators in the integration management TKM in school, so that they can integrate ICT in a planned, managed, guided and controlled properly.

This paper is expected to contribute a concept how to fix school administrators in managing information and communication technologies in schools related to the purpose of school, so that it is useful to: a) the Department of Education raise administrators in the integration management of ICT in school effectively and efficiently; b) The school inspector does the right observe to the staff in integration management of ICT in school effectively and

efficiently; c) the principal can integrate ICT in schools with proper management, d) Teachers in following what is directed by the pricipal in the integration of ICT in schools, e) students can take advantage from the management in the integration of ICT in schools, and f) the department can use the ICT integration in schools as measurement of school accountability.

The role of ICT and Administration at School

Rusman, Deni, and CEPI (2011) said that ICT provide benefits to education if it is well planned and used for educational activities. Without a good design, ICT will not provide optimum benefit, even it is possible it will be a barrier educational activity. This is related to the OECD statement on line) and which basically explains that ICT have merit and could be used for education. Nevertheless ICT itself will not provide a significant impact compared to learning normal if the use of ICT is not managed efficiently.

Riyana CEPI (2010) said that ICT is expected to support the school optimization because the potential of ICT is quite large, such as (1) expanding learning opportunities, (2) improving the efficiency, (3) improving the quality of learning, (4) Improving the quality of teaching, (5) facilitating skill formation, (6) encouraging sustainable long-life learning, (7) improving policy planning and management, (8) reducing the digital divide.

Department of Education (2004) in the ICT Blueprint for Education stated that the function of ICT in education is as a source of learning, learning aids, learning facilities, standard competence, administration system, decision support, and infrastructure.

Many studies shows a relation between effective management with quality schools, or in other words, management can be the difference between an effective and efficient school. This was evidenced by a survey conducted in the United States, Hong Kong, Britain, Israel and New Zealand (Tony and Coleman 2012). It was proved that an effective school is a school that takes over educational responsibilities from the national government, regional and local in which school administrators can take a strategic approach, which integrates several different aspects of management to set and achieve their own educational institutions.

Related to the opinion of Sani, Izham, and Jainabee (2008) that the school always faces change, managing change and the school is one tricky task for school leaders. Hopkins, in MacBeath and Mortimore (2002) says that school improvement is a strategy to change in education student achievement and strengthen the school's capacity to cope in facing change. Based on the description above, it means that the integration of ICT in schools requires effective and efficient management, because it will be able to improve the quality and success in school.

Administrators Role in Handling School

Management schools in this study is the maintenance carried out by the school officials in this case the head and deputy head of the school. The school principal is person in charge the management of education (Ministry of Education 2005). Management education units in primary and secondary education implement school-based management which is indicated with independence, partnership, participation, openness and accountability (Ministry of National Education. 2006.

Rashid (2007) stated that the school board can not separate himself from making decisions on every day because it is an essential thing in school administration. So the problem in school relates to the management of the school principal, as mentioned by Unpad.ac.id (18/09/2011) that the management is not optimal, so that it causes problems in an effective efficient, and the teaching standards.

Sani (2009) says that the principal is the most important person in the school and he is the one responsible for all the activities. The principle should arrange and manage school programs, master and affect its implementation, coordinate the various activities of the employees and evaluate the progress and overall performance over time.

It means that one of the principal's tasks is a classic management, which is an art to obtain the results through the various activities undertaken by others (Siagian 2005). More fully expressed by Stonner, Freman and Gilbert (1996) that it is the process of planning, managing, leading, controlling the manpower of members and using other resources to achieve the specified goal. The same point is also conveyed by Gibson, Ivancevich, Donnelly, and Konopaske (2009) that management functions as POLS, which stands for Planning, Organizing, Leading, and Controlling. Similarly, Kathryn and Martin, in Mamur Asmani Jamal (2012) also pointed out management as a process of achieving organizational goals that can be realized through performing 4 main functions, namely to plan, to manage, to lead, and to dominate.

Event planning is one of the main tasks of management. According to Stonner, Freman and Gilbert (1996), planning implies that managers think thoroughly of the targets and actions based on a method, plan or logic and not based on feelings. Designing the organizational goals and establish monitoring procedures to achieve the best.

According to Siagian (2005), planning, as the first function of management, is a concrete step which should be firstly taken in achieving the goals. This was reinforced by Boone and Kurtz in Jamal, Mamur, Asmani (2012) that planning is an activity to set goal and the ways to achieve it.

The second main task is the organizing, which is the process of organizing and allocating works, authorities, and resources among members of the organization, so that they can achieve the organizational goals (Stonner, Freman and Gilbert, 1996). Siagian (2005) defines organizing as the overall process of grouping people, equipments, tasks, authorities and responsibilities in such a way so as to create an organization that can be driven as a unified organization in order to achieve the predetermined goals. The oldest sense of organizing according to Jamal Terry in Mamur, Asmani (2012) is that an action seeking for behavior relationships efficiently among people, so that they can work together efficiently and gain personal satisfaction in performing certain tasks in the certain conditions of environment in order to achieve certain goals or objectives.

Effective school organizing is the most fundamental aspect in the school management (Hoy and Miskel (1978). According to Stonner, Freman and Gilbert (1996), the third main tasks is to lead, which includes directing, influencing, and motivating the employees to do important tasks. Gibson, Ivancevich, Donnelly, and Konopaske (2009) said that leading is one of the important topics in the study and practice of management.

The third main task is to lead. Leading and leadership show a process, in which if someone is able to carry out the leading activities, he is then considered to have leadership. Leadership terminology, according to Nurholis (2003) comes from the word "leader" that

first appeared in 1300, while the leadership terminology itself appeared before the 1700s. Leadership can be defined as an activity to influence people who are directed towards the achievement of organizational objectives (Mulyasa, 2006b). Husaini (2009) added that leadership includes at least three things which are interconnected, ie the leader and its features, the followers, and the supportive condition where group leaders and their followers can interact. Leadership is associated with the missions, visions, goals, issues and strategies, transformations, human and communication. (Mok Soon Sang 2012)

The fourth as well as the last main task of management is to control, which is a process of monitoring, evaluation and reporting the achievement for faster corrective action (Husaini 2009). Jamal, Mamur, Asmani (2012) said that all the previous functions would not be effective without the supervision task. In addition, Siagian (2005) stated that all scientists agreed that management supervision duties are in the management board.

In a study in Malaysia, Wee Seng Hock (1995) states that leadership has been a topic discussed in the past and the present. Many scientists have emphasized the importance of the principal's role as staff developer. The purpose of this study is to find out the performance of the principal as staff developer, as perceived by principals and their staff. It is also to determine the factors that will influence the principals' educative behavior in the development of the staff. It is estimated that the demographic variables, age, and gender have an influence on the principals' educative behavior.

Administrators role in the integration of ICT in Secondary Schools

High school is the most likely be possible to implement this concept, because it is supported by the resources and good administrators. Thus the management of secondary schools today must be associated with the integration of ICT in schools, which is a special task from the principal, since it is special in terms of planning, taking care of, leading, and controlling integration of ICT at school.

Malapile & Keengwe (2013) in his paper explore the main issues related to Information and Communication Technology (ICT) in education and technology planning. Using the spread of innovation theory, the authors examine the opportunities and challenges of technology planning in Developing Countries (DC), technology trends in school planning, and technology planning models that exist in schools within DCS. Instead, this paper aims to develop a discussion that is based on the premise that teaching is not efficient without the use of proper information and communication technologies.

In Indonesia, we need to emphasize the integration of ICT in schools because in the future education will make use of new ICT-based curriculum. This policy had been informed to secondary schools, especially to vocational schools, hence their schools have ICT facilities, yet it is not optimally used, because not all school administrators do their role properly. ICT integration in education is organized through the stages planned by UNESCO, which uses Schoolnettoolkit approach model. Bangkok: UNESCO Asia and Pacific Regional Bureau for Education, namely, emerging (emergence), applying (hint), infusing (the application), and transforming (change). (UNESCO 2004).

Indonesia is faced the education quality gaps between urban and rural areas, especially remote areas. In general, there is still a gap between the regions in western Indonesia and the regions in eastern Indonesia. Quality of education in Indonesia is

increasingly alarming. This is, perhaps, seen from the reduced levels of Indonesian in the HDI (Human Development Index) in 2011 from the level of 111 from 182 countries to the level of 124 from 187 countries, and last year Indonesia was ranked 112 out of 175 countries (far below Malaysia and Bangladesh). This is because the quality of teachers needs to be improved. Currently the number of teachers employed is 2,692,217, but only 727,381 people or 27% of them have obtained professional certificates, there is still 73% of teachers who do not meet the qualifications of professional educators, including the ability to use ICT in their school (CEPI Riyana 2010) .

The use of ICT at schools in several cities in Indonesia seems not running as smooth as in Jakarta, Medan and Surabaya. According to the survey conducted by the Ministry of Communications and Information Technology, Human Resources Research and Development Council, Jakarta Post Maintenance and Information Technology (2011), only the 0:06% of teachers who teach basic computer skills to other teacher, only 86.5% computers are used for teaching and learning activities, and the rest 13, 5 % are used for school's administrative activities.

Comparing to other countries' ICT development, Indonesia is still below countries in Asia, particularly in ASEAN. This data is based on the results of ITU. Starting with a fixed line teledensity comparison, in the period 2006 to 2010, Indonesia experienced a significance increase in teledensity, especially between 2006 - 2009, Indonesia's position is just above Cambodia, Myanmar, Laos, India and the Philippines. While among ASEAN countries, Indonesia fixed line teledensity is still below the average of the ASEAN countries. After 2008, there is an increase at most ASEAN countries. (Ministry of Communications and Information Technology, Human Resources Research and Development Council Jakarta Post Maintenance and Information Technology, 2011)

In Indonesia, the school administrator implementing organized school management in facing ICT force is not optimal yet. This is revealed in Wongkar and Husaini's study (2009). They found seven important issues in school planning; a) school administrator actually views that the education planning procedural activities are not necessary; b) interest and attention of principal in school level planner tends to think on the shortcut mindset due for the planning activities which is according to procedure is seen as wasteful; c) the strict bureaucracy tends to be an obstacle in developing the planning procedure aspects; d) the initiative in reviewing the substantive aspects of education planning do not implement due to unimportant consideration of principal. As the consequent, the model of development do not found by principal; e) the solid planning of school development can be achieved if it is supported by the capability education planner; f) incapability of principal in making a solid planning is due to incapability in comprehending procedural aspect and substantial education plan; g) with a solid plan of school development, there is a possibility on principal's behavior changing. This behavior changing can free the principal from the guide behavior and will be more anticipative attitude, responsive, dynamic-interactive that finally contribute the increasing of learning productivity.

ICT integration in Indonesian school is planned in two phases; the first phase is according to Education Department (2004). ICT Blue prints for education. Jakarta, National Education Department publisher is that ICT function in education, as learning source, learning media, learning facility, standard competence, administration system, decision follower, and infrastructure. The second phase is continuum model from Bonk et al, in Rusman,, Deni, and Cepi Riyana (2011) is that 1. Marketing/ learning sibyls is through website, 2. Students' exploration of sources, 3. Student that is resulted by source in website,

4. The source is from the Course site, 5. The source is from purpose web, 6. Substantive activity site and high class, 7. Outdoor activities are more than in the class, 8. Website is as alternative way to students, 9. The whole course is in website, 10. The course is appropriate with website initiative in planning the more one.

Vanderlinde's report in the Netherland, Vaan Braak & Dexter (2012) stated that the researcher and the policy makers around the world definitely recognize the importance of developing school based ICT as basic plan to facilitate ICT integration in education. Although this interest is only some to know on how a school can develop their local ICT and create ICT basic plans.

The Studies of Management and School ICT Integration

The researches of school management are mostly focused on school-based management. One of the studies is that Zainal Arifm's study (2009) about the principal's strategies in implementing school-based management. With focus details (i) the principal's strategies in implementing the management transparency, (ii) the principal's strategies in implementing the quality of learning, (iii) the principal's in giving people participation.

Moerdiyanto (2007) stated that through eight parts of TQM, they are national groups, integrity, and trust, leadership, teamwork, training, achievement, and communication, so that it can be resulted the guarantee of successfulness. The role of principal is high, it is because he/she has to enhance, train, and implement those eight parts in school education program. Implementation of TQM without ethics foundation, integrity, and trust is useless.

The principal in Sergiovasi research, in Shahril Charil Amarzuki, Lagu Ahmad and Hussein Ahmad (2010) stated that the comparison which is done by Gilbert Austin in high achievement school and low achievement school in Maryland found a most significant distinction between two type of those schools. It is strength of the principals in the school. A high achievement school, Mathematics teacher has a strong leadership always pay attention directly to learning, has wide range in terms of successfulness, and has more orientation to the academic achievement.

The theory of Mohd. Saleh (1997) that is to identify the perception of teachers, principals, and senior teachers in secondary school for their role which is done by principal as learning leader in influencing students' academic achievement. Learning leadership is essential role in achieving the successfulness of education. The role of learning leadership is related to an effort to develop teaching and learning process in the school. This process is usually involved the innovation of education program that has purpose to increase students' academic achievement.

Muhammad Yaumi (2011) in his thesis concluded that ICT integration that is developing in Indonesia is in imitation phase, new set, and adjustment, for instance, applying technology in learning. Integration that lead to modification, diffusion, and innovation of information technology cannot be implemented yet either by technology or education experts. Both technology expert and education expert work separately and do not have any collaboration to build a strength in modifying, reredakan, and creating information technology innovation that is integrated in learning while learning trough E-learning is an urgent need in term of developing Indonesian human resources. Although there are numerous theories of innovation diffusion is already done in applying information technology in learning, there are also many obstacles to face. Some of examples are Indonesian material, inadequate of English competency, internet access, unprepared of teachers, lecturers,

educators, and the limited time in comprehending more about knowledge and competency of technology. It is a dominant problem that faces by almost technology expert and educators.

According to Husaini (2009), management determines 80% of school quality. It is because according to Beach, in Azmi, Wan, Ramli (2010), management is a social process to determine a responsibility for efficiency or planning and movement of the company.

CONCLUSION

From the explanation above, we can know that the role of school administrator concept in school Technology information integration management can contribute an optimal advantage. The function of management that has to be done by administrator is that planning, managing, leadership and supervising, so that Technology information integration in the school can truly achieve. It is because management determines 80% of school quality.

RECCOMMENDATION

This paper is not perfect yet if there is no further research. Due to it is specific and limited, a research is necessarily to be done in specific way, and it can use a combination of research design. From the three combinations of design, the explanatory design is appropriate to apply. It is because according to Creswell (2005) this design is most popular design combination method in educational research.

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