

Components of Information Technology and Communication Leadership of School Administrators

Amnat Apsorn¹,
Boonchan Sisan²,
and Pariyaporn Tungkunan³

King Mongkut's Institute of Technology Ladkrabang, Thailand

¹amnat_com@sstb.ac.th

²kiboonch@kmitl.ac.th

³pariya2511@gmail.com

Abstract - This research aims to synthesize the components Information technology and Communication Leadership in school administrators. The researcher collected and analyzed the secondary data by using a documentary research approach. The results indicate that the leadership of information technology and communication of school administrators consists of 8 components as follows: the vision and operation of educational institutions in information technology and communication, formulating strategies and encouraging teachers and students to use technology in teaching and learning, establishment of teacher skill development plans and administrative, support and facilitating staff, learning to challenge exemplary practice in the use of information and communication technology, knowledge transfer to create a learning community, monitoring, storage, update the information to be reliable.

Keywords - Components, Information Technology and Communication, Leadership, School Administrators

I. INTRODUCTION

Information and communication technology, it creates new forms of communication and interpersonal interaction. This has led to the development of visionary executives. This requires a person who has the knowledge and

understanding to use the technology to benefit. At present, the use of technology is considered part of every function. But the implementation of the information system still faces some obstacles related to the management. And especially the process of organizing school information systems. The implementation of information systems in schools in the past to organize effective management information systems. It was found that most of them had data collection errors. The evaluation did not match reality and delayed. Lack of specialized knowledge Workload of personnel has a lot. And executives bring information to the administration and decision-making. Development of teaching activities; Formatting to be standard and effective.

Information Technology and Communication Leadership of school administrators, it is essential to reform education. This will affect the effective information management system. If education and development tools for leaders in information technology and communication are studied and developed by school administrators. To provide leadership training for leaders in information and communication technology. Highly competent in teaching management. Or to use as a tool for quality assessment in leadership standards and management capabilities. Both the quality assessment of the internal education of the school and the external quality assessment by the Office of Educational Quality Assurance and Assessment. (Public Organization) or to be used as part of a tool to check eligibility

of an applicant as a school administrator. It makes it possible for educational administrators with leadership in information technology and communication. To administer the operation of the school. And those who benefit the most are the learners. This will help the educational reform achieve its goals. (Sirichai Kanchanawasee, 2542).

From the problems mentioned above. Leadership in Information Technology and Communication of School Administrators Most of them lack leadership qualities, which is an important issue. And affect the management and management of education in the field of information technology, the level of education and education as a whole. Based on research studies. As a result, the researcher as the school administrator. There is an interest in studying the development of a guidebook for leaders in information technology and communication. Under the Office of the Basic Education Commission to guide the development of information technology and communication leaders of school administrators effectively and effectively.

II. RESEARCH OBJECTIVES

The purpose of this research is to establish the leadership indicators of information technology and communication of school administrators. Under the Office of the Basic Education Commission.

III. RESEARCH METHOD

This research uses qualitative research, documentary research to study leadership indicators, information technology and communication of school administrators. Under the Office of the Basic Education Commission the researcher collected the data. From research related books, articles, analyzes from publications and the internet related to leadership in information technology and communication of school administrators. Under the Office of the Basic Education Commission.

IV. RESEARCH RESULT

Based on a theoretical study of information technology and communication leadership. The subjects studied were:

Osten (2001), proposed that Today's technological change has led to increased use of technology. The use of infinite technology, especially computers, makes accessing resources fast and easy, which affects business education and everyday life. Modern leaders need to be able to use these technologies. And who understands and sees the effect of technology on the changes that have taken place. At the same time, there will be problems or gaps between those with and without modern technology. Modern leaders must be able to narrow this gap. So, the style of modern-day leaders should be technologically advanced. Due to the current technology is rapidly emerging. Information has increased. Information communication is fast. So leaders must keep up with technology. The source of power will change. Integration of various technologies. Together to increase the effectiveness of the leader.

The features of modern leaders must be understood and appreciated by both current and future technology. As well as the environment. Since ASEAN countries have shifted from agriculture to industrial, modern leaders need to be able to bring in the technology, develop resources, and develop the person in the organization to the utmost. It must take into account pollution caused by changes that will affect the country.

Kleiner, & Lewis (2003), noted that educators see the development of technology integration into rapidly expanding education. Almost every classroom in a U.S. educational institution has an internet connection. There are a growing number of educational websites. At the same time, the government has invested in building more technological infrastructure for education over the past decade. While the adequacy and capability of educational technology is being used to meet the needs of higher education institutions as well. But the

demand for technology in executive management is still low. Project management Planning various tasks Linking to low technology utilization (McLeod, Logan, & Allen, 2002) Although management trends in schools are more concerned with the added value of technology. But school administrators' decisions also need to take into account the return of technological investment that is worthwhile. How much In addition, efforts to improve the management style using technology are not the answer to all developments. However, consideration should be given to the experience and learning of technology in each class. (Consortium for School Networking: CoSN, 2004) Therefore, the integration of technology in educational institutions requires management to focus on school and workload. Management in the classroom together.

Institutional administrators have a constructive view of the concept of direct learning as an important factor in leading to effective leadership. In addition to the results, two-thirds of the state-level education district directors in the United States find it difficult to succeed in administering a school district. If you have never been a school administrator before. And the proportion of school administrators who think they should be teachers before is high (Farkas et al. 2001). It is argued that individuals with high levels of management skills, even without experience in educational management. However, it may be successful in becoming a leader in education.

The use of modern technology in educational institutions. It will be successful in teaching and learning. Especially in schools where school administrators have leadership in information technology and communication. Will have the will to demonstrate technology performance. According to a survey of 64 schools in New Zealand, the principal wanted to be a technology leader. Want professional development and take advantage of technology This finding is inconsistent with the social reality that school administrators have a very low technological competence (Stuart, Mills, & Emus. 2009).

Intelligent and effective school administrators play a pivotal role in deciding whether to use technology to improve student learning. However, many school administrators may not have technology leadership. Information and Communication They may not be confident in using strategies to improve their learning or believe their knowledge is insufficient to provide any guidance to them, because technology is recognized as a key factor in increasing productivity. Industry Many believe that. Effective use of technology in schools will increase educational opportunities and quality. Research indicates that there is little technology in the field. If appropriate technology is used, it will be of great benefit in enhancing educational productivity (Byrom, & Bingham, 2001) Technology is important to management for two main reasons: the need to use resources at higher rates. While resources are limited. Something less is the natural environment or the availability of personnel in the community. This condition forces management to seek technology in the form of tools, materials, or methods to utilize existing resources, or to expand resources to achieve the desired objectives. Examples of such necessities are:

- 1) From the changing societies of agriculture to industry and service. Many farmers sell their land and change to another occupation. Children do not have land in agriculture. This has impacted on many aspects of education, such as the quantity of student production in agriculture, and the quality of teaching methods used in higher education to enable graduates to cultivate new agriculture in a variety of ways. Higher productivity in less areas. In the form of mixed farming or modify the branches that will be taught, which will affect the way teachers produce new logs. And old teachers training to perform their duties in new ways. In order to solve such problems in a timely manner, technology will need to be in the form of materials, equipment and methods.

- 2) The transformation of society into an information society results in a rapid flow of information. Highly competitive those who survive and progress must be quick to track

changes, because information is an important resource for high education. This is especially true in fast-changing and highly competitive fields. For this reason, information and time management can not be done efficiently without technology.

3) State policies necessitate the need for increased resources. It can not be achieved by traditional resource management methods. The education system must adapt to achieve greater performance in the same resource or increase at a lower rate. Including improving the way to maintain good people in the system.

4) Problems in society such as unwanted political behavior. The natural environment deteriorated. Pollution, demographic change, the proportion of older people. It calls for education for the development of people to prevent and address such problems. The study as a subsystem of society. The system is so big that it hurts to change quickly. And a system that is often affected by other systems, such as when problems with rapid change may impact on education. Education development requires movement to find new ways. To solve the problem always.

5) Due to limited resources. By increasing educational objectives and policies. Executives must use the ability to use methods that will make the user satisfied. And accept the results of resource allocation or find ways to expand resources. Which in terms of resources. Especially in terms of resource allocation. The state should adjust to be effective and fair to the public and facilitate the distribution of educational opportunities to the underprivileged and underprivileged at various levels and types of education. (Bobbie J. Greenlee, 2007).

Based on theoretical ideas about leadership, information technology and communication as mentioned above. It is evident that leadership in information and communication technology is important to managers for two main reasons: the need for increased resources. While resources are limited. Some less The survival and growth of the education system will depend on the efficient management of

resources. However, it is only possible when using appropriate resource management technology. The importance of leadership in information technology and communication will enable leaders to be able to utilize technology most effectively and to see the impact of technology. Managers have the ability to integrate technology into their school workload, which is a developmental dimension of leadership that can be developed in a productive way. The behavior of leadership leaders in information and communication technology is expressed by having a technological vision: encouraging participation by stakeholders in developing vision, technology, and vision. extensive It promotes the use of technology in teaching and learning, ie, the knowledge to use appropriate technology to upgrade the curriculum to meet the curriculum standards to achieve the highest achievement of students. Technology in the management of technology is used as a daily routine. Create teams and learning groups in the organization to utilize technology for job development. Create a picture of the work Develop professional advancement for those who use technology for teaching and learning. The use of technology in measurement and evaluation, ie, the use of technology to collect data and interpret the results. Use technology to measure and evaluate students' learning. And ethics in technology, ie ensuring that all students have access to technology and meet their needs. Encourage the use of law and ethics in responsible use of technology.

The following information technology and communication features have been defined: 1) (Direction-setter) technology leaders have the ability to direct the direction of technology innovation to integrate the effective management of education for both in their own organizations. At the local and national levels, taking into consideration the economic, social, technological and academic environment so that the state of the technology is appropriate to the conditions of each organization, or each community must know how to create a shared vision with its members. Include those who have an interest in the organization, 2) change agent, a leader in educational technology that is able to bring

about change in education. And the adoption of technological innovation in the process of teaching seriously. Can reduce the resistance to the adoption of new things, 3) be a spokesperson, a technology leader who has the ability to publish his or her vision, negotiate or negotiate with a variety of executives. Or external organization, and 4) Be a coach, a leader in educational technology with the ability to build a team to bring their vision to the next level. Go into action Must teach, teach, give advice, build trust. Give power to those who will work.

Synthesis of elements and indicators of leadership, information technology and communication. The researchers gathered from the agencies responsible for policy setting on technology standards. And from the perspective of academics as follows.

Yee (2000), studied the leadership of information technology and communications for school administrators in learning and thinking in Canada, the United States, and New Zealand. Qualitative results show that the characteristics of technology leaders are many, such as: 1) equality; 2) learning to make vision; 3) learning challenges; 4) passing on patience; 5) supervise the work regularly; 6) be a network administrator; 7) challenge careful changes; and 8) create a technological culture by rallying. Employees to participate in creating a culture of technology.

Schiller (2000), commented that executives with technological leadership often expressed such characteristics as: 1) technology support; 2) facilitation of change; 3) Learn; 4) Resource allocation; and 5) Define teacher development plan.

Kunsoo Han (2013), has an interesting viewpoint that current technology leaders need to be interested in five core concepts, especially school leaders with leadership in information technology and communications, with the following characteristics or elements is: 1) to apply technology in everyday life both personally and professionally; 2) play an equal role as both manager and vision vision leader;

3) self-control to use technology as a teaching strategy; 4) to build technology leadership by integrating various concepts, styles, and styles; and 5) have a positive responsibility to support teachers. And students use technology effectively in the learning process.

Avery Smith (2014), the ability to apply technology. To make the job more effective, it is measured by the management practices that can be used to support instructional technology. And management has full potential before it is outdated? Teaching support includes maintenance. The development of teachers and staff skills. Scheduling computer resources and devices As well as the provision of staff to facilitate the teachers and students. The use of technology in the management of data storage. Update information to be reliable and current. Use of decision information and a change in the traditional workflow. Teachers and school staff can work with Technology effectively.

Mark Gronow (2007), Creating a Learning Community Exemplary practice in direction and use of decision-making technology. Creating atmosphere and supporting materials related to information technology. Creating and Leading School Leadership Opportunities in Information and Communication Technology.

Kathryn Moyle (2005), Driving Innovation. Bring information and communication technology to use in their own work. Define the conceptual framework and approach to the future. Have personal images about technology. Use information and communication technology to solve problems. Engage with teaching and learning. Having an understanding of the people in the community around the school admits that personnel and others they do not have any knowledge of everything, but they are willing to work. Like the challenge.

V. RESULTS AND DISCUSSION

Information Technology and Communication Leadership of school administrators. Most of them lack leadership qualities, which is an important issue. And affect the management and management of education in information

technology at the school. And overall education is great. Based on research studies. As a result, the researcher as the school administrator. There is an interest in studying the development of a guidebook for leaders in information technology and communication. Under the Office of the Basic Education Commission to guide the development of information technology and communication leaders of school administrators effectively and effectively. Researchers can synthesize elements of leadership in information technology and communication as follows:

1) The components of vision, vision and operation in educational institutions in information technology and communication.

2) The strategic design element and encourage teachers and students to use technology in teaching and learning.

3) Components of the skill development plan for teachers and staff to be able to work with technology effectively.

4) Elements of administration, support and facilities to create an atmosphere and allocate resources related to information technology.

5) Elements of learning carefully challenged carefully.

6) The practical component is a role model for the use of information and communication technology in everyday life, both personally and professionally.

7) Elements of knowledge transfer, opportunities and culture. Information and communication technology for school personnel. To create a learning community.

8) Elements of monitoring, storage and information. And updating the information to be reliable and current. For the sake of resolving the problem.

REFERENCES

(Arranged in the order of citation in the same fashion as the case of Footnotes.)

- [1] Kanchanawasee, S. (1999). "Multilevel analysis: Multi-level Analysis". Bangkok: hualalongkorn University Press.
- [2] Osten, M. (2001). "Technology leadership: the executive director's role in the tech planning process". <<http://www.techsoup.org/learningcenter/techplan/archives/page9810.cfm>>. Accessed 14 January 2010.
- [3] Kleiner, A. and Lewis, L. (2003). "Internet access in U.S. public schools and classrooms: 1994-2002". Washington, DC: Department of Education, National Center for Education Statistics.
- [4] McLeod, S., Logan, J., and Allen, J. (2002). "Preparing school administrators to use and facilitate the use of information technology: A study of educational leadership programs". paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA. [n.p.].
- [5] Consortium for School Networking (CoSN). (2004). "Digital leadership divide". Washington, DC: [n.p.].
- [6] Farkas, S. and et al. (2001). "Trying to stay ahead of the game: Superintendents and principals talk about school leadership". New York: Public Agenda.
- [7] Stuart, M., Mills, F., and Emus, H. (2009). "The principal as technology leader". Thousand Oaks, CA: Corwin.
- [8] Byrom, E. and Bingham, M. (2001). "Factors influencing the effective use of technology for teaching and learning: Lessons learned from the SEIR/TEC intensive site schools". Durham, NC: SouthEast Initiatives Regional Technology in Education Consortium.
- [9] Greenlee, B.J. (2007). "The process and Effects of Mass Communication, Revised Edition". Illinois: University of Illinois Press.
- [10] Yee. (2000). "Image of school principals' information and communication technology leadership". Journal of Information Technology

- for Teacher Education, Vol. 9(3), pp. 287-302.
- [11] Schiller, J. (2000). "Working with ICT: perceptions of Australian principals". *Journal of Educational Administration*, Vol. 41(2), pp. 171-185.
- [12] Han, K. (2013). "IT's agenda for e-leadership". *Computer world*, Vol. 3(34), pp. 4-5.
- [13] Smith, A. (2014). "An analysis of the nature of educational technology leadership in California's SB1274 Restructuring Schools". Doctoral dissertation, University of San Francisco.
- [14] Gronow, M. (2007). "ICT Leadership in School Education". A paper presented to the Australian Catholic University Conference "Directions for Catholic Education Leadership in the 21st Century". The Sofitel Wentworth Sydney, Australia.
- [15] Moyle, K. (2005). "Principal leadership for technology integration: A study of principal technology leadership". Doctoral dissertation, Drexel University.