

ICT ON EDUCATION MANAGEMENT IN DIGITAL AGE

Ni Wayan Ramini Santika
Institut Agama Hindu Negeri Tampung Penyang Palangka Raya
santikaramini@gmail.com

ABSTRACT

The rapid growth of digital media requires the contribution of education management to build future generations in utilizing information. This digital age is indispensable the use of digital or internet-based communication and information devices. Media intelligence and digital literacy skills are the strategies to encourage media intelligence, including being creative, producing content, and utilizing it effectively. Education is a place to transform science and technology for the benefit of human life. Education management is required to anticipate global changes accompanied by advances in science and information technology. Education management is implemented so that education is easier to develop in this digital age. And the objective is that the implementation of a planned business is systematically planned and can correctly, accurately, and complete evaluated so that it achieves its goals in a productive, quality, effective and efficient manner. The education management in digital age functions can be studied from the main activities carried out by managers, through planning, implementation, and assessment. The management process generally follows the steps of planning, organizing, leading, and controlling. The benefits of ICT, Information and Communication Technology utilized Learning Multimedia Programs and Web-based Learning. And it's proposed ICT as support system of Education Management in the Digital Age. Keywords: Education Management, Digital Age, ICT.

I. INTRODUCTION

The rapid development of science and technology can increase economic and industrial development in this digital age, which has a very important impact on the world of education and various aspects of life. The development of technology in this digital age, it will create a new lifestyle for everyone who always needs an all-electronic device. This digital age is indispensable in the use of digital or Internet-based communication and information devices. The current condition where the

whole world is experiencing the Covid-19 pandemic, every work, and educational activity, everyone can access various information and learn on the internet network.

In-Law Number 20 of 2003 concerning National Education, in its consideration, it is stated that the 1945 Constitution of the Republic of Indonesia mandates the government to strive and organize a national education system that increases faith and piety to God Almighty and noble character to educate people's lives. The nation which is regulated by law that National Education System must be able to guarantee educational opportunities, quality improvement, and relevance to the efficiency of education management to face challenges in accordance with the demands of educational change in a planned, directed, and sustainable manner. The national education system is a whole component that is interrelated and integrated to achieve the goals of national education. National education is education based on Pancasila and the 1945 Constitution, which is rooted in religious values, national culture and is responsive to the demands of the times (Sisdiknas 2003:1-2).

In achieving educational goals, an action called management is needed. Management of education is very necessary because success in building education will make a major contribution to the progress of the nation. The contribution given covers all aspects of life, namely; social, cultural, economic, and political aspects. The development of education in the social aspect is through education it will give birth to generation as agents of change in the process of change in society.

Education as part of culture is a means of transmitting values, ideas, so that everyone is able to participate in the transformation of values for the progress of the nation and state. Education is a place to transform science and technology for the benefit of human life.

Therefore, in the context of providing effective and efficient education, a systematic, scientific, and rational analysis is required as required by educational technology and educational media, which is an urgent need, especially in the future.

Education managers improve their knowledge and abilities in the field of education to improve the quality of education. Education management must be mastered well and implemented properly so that education is easier to develop in this digital age. And, it's ICT, Information and Communication Technology must be implemented to Education Management in digital age at every school, and universities.

II. DISCUSSION

2.1 Education Management

The definition of Management is the ability of special skills to carry out an activity, either with other people or through achieving organizational goals. (Sudjana, 2004; 16).

Understanding Management is a certain process that uses abilities or expertise to achieve a goal which in its implementation can follow the flow of scientific knowledge and can also highlight the uniqueness of style of managers in utilizing the abilities of others. There are three focuses to define management, namely:

1. Management as an ability or skill which then becomes the forerunner of management as a profession. Management as a science emphasizes attention to managerial skills and abilities which are classified into technical, human, and conceptual abilities/skills.
2. Management as a process, namely by determining systematic and integrated steps as a management activity.
3. Management as art is reflected in the differences in one's style in using or empowering others to achieve goals.

Management as art is reflected in the understanding put forward by the American Society of Mechanical Engineers: Management is the science and art of

organizing and leading human endeavors, applying supervision and control of energy, and utilizing natural materials for human needs. Management is the art and science of organizing and directing human effort applied to control the forces

utilize the materials of nature for the benefit of man. (Tim, 2010; 86-87)

Thus, management is a special ability and skill possessed by a person to carry out an activity either individually or with other people or through other people to achieve organizational goals in a productive, effective and efficient manner.

Understanding Education Management is a management process in the implementation of educational tasks by utilizing all resources efficiently to achieve goals effectively.

In the National Education System Law No. 20 of 2003, it is stated that education is a conscious and planned effort to create a learning atmosphere so that students actively develop their potential to have religious-spiritual strength, self-control, personality, intelligence, social attitudes, and skills that needed by himself, society, nation, and state.

Education Management is an arrangement of educational fields carried out through planning, organizing, staffing, coaching, coordinating, communicating, motivating, budgeting, controlling, monitoring, evaluating, and reporting activities systematically to achieve quality educational goals (Tim, 2010; 87-88)

Education Management is institutional management that supports the implementation of teaching and learning, so the actualization is in the management of teaching or learning which in practice its activities are in the teaching and learning process (PBM). Education Management also examines various management elements that aim to streamline and streamline the achievement of educational goals (instructional, curricular, institutional, to national goals that lead to the realization of national goals). (Hermino, 2014;26)

Management in education is needed to anticipate global changes accompanied by advances in science and information technology. These changes take place very quickly and are large so that there needs to be continuous improvement in the field of education. Thus, the educational output can compete in the global age in line with advances in science and technology, especially information technology. The competition can only be won by educational institutions that still pay attention to the quality of education in its management. (Uwes and Rusdiana, 2016;219)

2.2 Educational Management Goals

Management is carried out so that the implementation of a planned business is systematic and can be evaluated correctly, accurately, and completely so as to achieve goals in a productive, quality, effective and efficient manner.

1. Productivity is the best comparison between the results obtained (output) with the number of sources used (input). Productivity can be expressed in terms of quantity or quality. The quantity of output in the form of the number of graduates and the quantity of input in the form of the number of labor and the remaining resources (money, equipment, supplies, materials, etc.). A more comprehensive study of productivity is the many and quality outputs of each function or role of education administration.
2. Quality refers to a measure of assessment or award given or imposed on certain goods (products) or services (services) based on objective considerations of their weight or performance.
3. Effectiveness is a measure of the success of organizational goals. The effectiveness of educational institutions consists of the dimensions of school management and leadership, teachers, education staff, and other personnel, students, curriculum, infrastructure, classroom management, school and community relations, management of other special fields, the actual results refer to

the expected results and even show closeness. the similarity between the actual results and the expected results.

4. Efficiency is related to how to make things right (doing things right) while effectiveness is about goals (doing the right things) or effectiveness is a comparison between plans and the goals achieved, efficiency is more emphasized on the comparison between inputs/resources and outputs. An activity is said to be efficient if the goal can be achieved optimally with the use or use of minimal resources. The efficiency of education is how that goal is achieved by having a level of efficiency in time, cost, effort, and facilities. (Tim, 2010 ; 88-89)

II.3 Educational Management Functions and Processes

The management function can be studied from the main activities carried out by managers, namely planning, implementation, and assessment. The functions of planning, organizing, staffing, implementing activities, and supervising are essential in every organization, including educational organizations.

In the world of education, the supervisory function is carried out as part of the managerial implementation. At the school level, supervisors play more of a "quality assurance" role with the task of supervision as an effort to guide staff to improve and improve the quality of education.

Management is a systematic process in carrying out organizational activities. The management process generally follows the steps of planning, organizing, leading, and controlling.

1. Planning is making a target to be achieved or achieved in the future. In an organization planning is a process of carefully thinking and determining the direction, goals, and actions as well as reviewing various resources and appropriate methods/techniques.

2. Organizing is the process of organizing, allocating, and distributing work, authority, and resources among members of the organization to achieve organizational goals. Organizing means:
 - a. Determine the resources and activities needed to achieve organizational goals.
 - b. Design and develop workgroups containing people who are able to bring the organization to its goals.
 - c. Assigning a person or group of people in a particular task and function responsibilities.
 - d. Delegating authority to individuals is related to the flexibility to carry out tasks.

Organizing is very important in management because it makes the position of people clear in the structure and work and through the selection, allocation, and distribution of professional work, the organization can achieve goals effectively and efficiently.

3. Leading educational institutions places more emphasis on efforts to direct and motivate personnel so that they can carry out their main functions properly. A leader in carrying out his mandate if he wants to be trusted and followed must have leadership qualities that can always be a director whose ideas and thoughts are heard by members of the organization, by having a personality that can be used as a role model.
4. Controlling educational institutions is to make institutions run in accordance with predetermined paths and reach their goals effectively and efficiently. The control process can involve several elements, namely;

- a. Setting performance standards
- b. Measuring performance
- c. Comparing performance with predetermined standards
- d. Take corrective action when deviations are detected. (Tim, 2010; 92-95)

2.4 Information and Communication Technology

Understanding Information Technology, especially Information and Communication Technologies (ICT), is the largest terminology that includes all technical equipment for processing and conveying information. ICT includes two aspects, namely information technology and communication technology. Information technology includes everything related to the process, use as a tool, manipulation, and management of information.

While communication technology is everything related to the use of tools to process and transfer data from one device to another. Therefore, information technology and communication technology are two inseparable concepts. So Information and Communication Technology contain a broad understanding of all activities related to processing, manipulating, managing, transferring information between media. The term ICT emerged after the combination of computer technology (both hardware and software) with communication technology in the mid-20th century. The combination of these two technologies is growing rapidly beyond other technological fields. Until the beginning of the 21st century, ICT is still undergoing various changes and its saturation point has not yet been seen. (Chairunnisa, 2016; 73-74)

Analyses of the impact of ICT in education management is missing new relevant insights and needs to be further analysed and reviewed. In order to do this we have undertaken this study to add additional insights into the impact of ICT in education management. (Fetaji, 2018; 32)

2.5 Utilization of Learning Multimedia Programs

Multimedia is often interpreted as a combination of many media or at least consisting of more than one media. Multimedia can be defined as a computer equipped with a CD player, sound card, speaker with the ability to process motion pictures, audio, and graphics in high resolution.

Multimedia programs can be classified as follows;

1. Entertainment
2. Education (formal and informal) in enrichment and refreshment.
3. Reference (encyclopedia)
4. Business (company profile, financial program)

According to Wahono (2008) in Chairunnisa 2016;76 states that multimedia can be interpreted as a combination of various media consisting of text, graphics, still images, animation, sound, and video to convey messages to the public.

According to Murni (2008:2) in Chairunnisa 2016;76 characteristics of multimedia are interactive, user control, programmed.

2.6 Utilization of Web-Based Learning

Web-based learning is a learning activity that utilizes media sites (websites) that can be accessed via the internet. Web-based learning or also known as

"web-based learning" is one type of application of electronic learning (e-learning).

In one of its publications on the about-elearning.com site (in Rusman, 2019:15), the American Society for Training and Development (ASTD) (2009), puts forward the definition of e-learning as follows: :

"E-learning is a broad set of applications and processes which include web-based learning, computer-based learning, virtual and digital classrooms. Much of this is delivered via the internet, intranets, audio and videotape, satellite broadcast,

intagective TV, and CD-ROM. The definition of e-learning vary depending on the organization and how it is used but basically, it involves electronic means communication, education, and training”.

The definition states that e-learning is the process and activity of implementing web-based learning, computer-based learning, virtual classrooms, and/or digital classrooms. The materials in these electronic learning activities are mostly delivered through the internet, intranet, video or audiotapes, broadcasting via satellite, intagective television, and CD-ROM. The media used in e-learning learning in this digital age such as the use of the Zoom application, google meet, classroom This definition also states that the definition of e-learning can vary depending on the organizer of the e-learning activity and how it is used, including what it's intended use.

E-learning is not the same as conventional learning. E-learning has the following characteristics:

1. Interactivity (Interactivity); the availability of more communication channels, either directly (synchronous), such as chat or messenger, or indirectly (asynchronous), such as forums, mailing lists, or guest books.
2. Independence (Independence); flexibility in terms of providing time, place, teachers, and teaching materials. This causes learning to be more student-centered (student-centered learning).
3. Accessibility (Accessibility); learning resources become easier to access through distribution on the internet network with wider access than the distribution of learning resources in conventional learning.
4. Enrichment (Enrichment); learning activities, presentations of lecture materials, and training materials as enrichment, enabling the use of information

technology tools such as video streaming, simulations, and animations. (Rusman, 2018 ; 293-295)

Based on the four characteristics above are the things that distinguish e-learning from conventional learning activities. In e-learning, students' comprehension of learning materials does not depend on teacher instructors, because students construct their own knowledge through teaching materials delivered through the website interface. In e-learning also, sources of knowledge are scattered everywhere and can be accessed easily by everyone. This is due to the global nature of internet media and can be accessed by anyone connected to it. In e-learning, the teacher/educational institution functions as a source of knowledge.

III. CONCLUSION

From the discussion, it can be concluded that with the rapid development of science and technology, it can cause various changes that were originally conventional now to digital which requires an internet network. The implementation of an effective and efficient education requires systematic, scientific, and rational analysis as desired by educational technology and educational media. Management in education is needed to anticipate global changes accompanied by advances in science and information technology. These changes take place very quickly and rapidly so that there needs to be continuous improvement in the field of education. Education output can compete in the global age along with the advancement of science and technology, especially information technology. The management function of the main activities carried out by managers is planning, implementation, and assessment. The functions of planning, organizing, staffing, implementing activities, and supervising are essential in every educational organization. Web-based learning is a learning activity that utilizes a website (website) that can be accessed via the internet.

REFERENCES

- Chairunnisa, Connie. 2016. *Education Management in Multi Perspectives*. PT RajaGrafindo Persada. Depok.
- Fetaji.B, Fetaji.M, and friends (2018) *Analyses of Impacting Factors of ICT in Education Management: Case Study*, MECS, I.J. Modern Education and Computer Science, 2, 26-34 (<http://www.mecs-press.org/>) DOI: 10.5815 /ijmecs. 2018.02.03
- Halima, Leli. 2020. *Development of Curriculum and Learning in the Age of Globalization*. PT Refika Aditama. Bandung.
- Hermione, Augustine. 2014. *Character-Based Curriculum Management Concepts, Approaches, and Applications*. Alfabeta Publisher. Bandung.
- Hermione, Augustine. 2020. *Freedom to Learn in the Global Age in the Perspective of Educational Management*. Pustaka Pelajar Publisher. Yogyakarta.
- Latif, Mukhtar and Latief, Suryawahyuni. 2018. *Education Management Theory*. Prenadamedia Group Publisher. Jakarta
- Macasawang, J M A (2020) *Access And Use Of ICT In School Management In Mindanao State University Main Campus*, IJEMI, International Journal on Education, Management and Innovation. Vol.1, No.3, 186 - 202
- Rusman. 2018. *Computer-Based Learning and Learning Develop Professionalism of 21st Century Teachers*. Alfabeta Publishers. Bandung.
- Sudjana, 2004. *Management of Educational Programs for Non-Formal Education and Human Resource Development*, Falah Production Publisher. Bandung.
- Sutrisno, Edy. 2019. *Human Resource Management*. Prenadamedia Group. Jakarta
- UPI Education Administration Lecturer Team, 2010. *Education Management*, Alfabeta Publisher. Bandung.

Republic of Indonesia Law No. 20 of 2003. *Regarding the National Education*

System. Ministry of National Education RI. Jakarta

Uwes, Sanusi and Rusdiana. 2017. *Alternative Educational Management Thinking Systems Solving Educational Problems*. CV Pustaka Setia. Bandung.