

Evaluation of Management of the Use of Information and Communication Technology

Heri Kuswara*¹, Ihsan Mustofa²,

¹ Bina Sarana Informatika University (UBSI), Indonesia

¹ Pringsewu College of Tarbiyah Sciences (STIT), Indonesia

e-mail: heri.hrk@bsi.ac.id,

Received: 04-06-2022

Revised: 11-07-2022

Accepted: 18-07-2022

Article Information

Abstract

Keywords:

Evaluation,
Management,
Information and
Communication
Technology, Learning
Room

These stages in Terry's management function are known as Planning, Organizing, Actuating, and Controlling (POAC). To measure the success of the use of information and communication technology in the learning space, an evaluation of the management stages that are carried out is needed. Stufflebeam's Model or CIPP Model is an evaluation model that can be used to evaluate the extent to which an educational program can achieve its goals. Madrasah Aliyah (MA) Al-Musthofa is one of the madrasahs that used information and communication technology in the learning room. The management stages become a reference for Madrasah aliyah Al-Musthofa in the use of information and communication technology in the learning room. This research with a descriptive qualitative approach provides an evaluation description that the management function has been carried out well by Madrasah Aliyah Al-Musthofa but there are still various shortcomings and weaknesses both in terms of human resources and other resources. These shortcomings and weaknesses have an impact on not achieving the objectives of the use of information and communication technology in the learning space at Madrasah aliyah al-Musthofa.

Kata kunci:

Manajemen, Dana Hibah,
Pendidikan

Abstrak.

Tahapan dalam fungsi manajemen Terry ini dikenal sebagai Planning, Organizing, Actuating, and Controlling (POAC). Untuk mengukur keberhasilan pemanfaatan teknologi informasi dan komunikasi di ruang pembelajaran, diperlukan evaluasi terhadap tahapan pengelolaan yang dilakukan. Model Stufflebeam atau Model CIPP merupakan model evaluasi yang dapat digunakan untuk mengevaluasi sejauh mana suatu program pendidikan dapat mencapai tujuannya. Madrasah Aliyah (MA) Al-Musthofa merupakan salah satu madrasah yang memanfaatkan teknologi informasi dan komunikasi di ruang belajarnya. Tahapan pengelolaan tersebut menjadi acuan Madrasah aliyah Al-Musthofa dalam pemanfaatan teknologi informasi dan komunikasi di ruang belajar. Penelitian dengan pendekatan kualitatif deskriptif ini memberikan gambaran evaluasi bahwa fungsi manajemen telah dijalankan dengan baik oleh Madrasah Aliyah Al-Musthofa namun masih terdapat berbagai kekurangan dan kelemahan baik dari segi sumber daya manusia maupun sumber daya lainnya. Kekurangan dan kelemahan tersebut berdampak pada tidak tercapainya tujuan pemanfaatan teknologi informasi dan komunikasi dalam ruang pembelajaran di Madrasah aliyah al-Musthofa.

INTRODUCTION

Stufflebeam and Shinkfield explain the meaning of evaluation as follows: "evaluation is an act of investigation and research and an in-depth and systematic examination of an object under study". At the technical and operational level (Al-Shanawani, 2019). *Stufflebeam and Shinkfield* interpret "evaluation is an activity of planning, retrieval and reporting using descriptive data and information and taking into account the various benefits of the object under study, the evaluation must be carried out significantly and prioritize honesty in order to provide consideration for decision making (Aziz et al., 2018). Evaluation is carried out with full responsibility and support from all parties in carrying out effective evaluation activities in order to increase knowledge about events according to facts (Ayyusufi et al., 2022; Ghorbanzadeh et al., 2019). *Mutrofin* interprets evaluation as a general framework that includes elements including evaluation as a professional judgment, evaluation as a measurement, evaluation as an analysis of the compatibility between performance with goals, targets, and work standards, and the evaluation focuses on the best decision, the evaluation must always be responsive and free of interest (Ananda & Rafida, 2018).

The definition of management put forward by many management experts, one which according to *Terry* explains "management is the process of directing and mobilizing human resources and other resources, such as materials, money, methods, and markets to achieve organizational goals" (*Terry*, 1977). From the management explanation above, it can be concluded that management is a process of obtaining an action from others to achieve the desired goal (*Lippe & Carter*, 2018). Management activities are the responsibility of managers to be able to motivate every personnel who carries out their duties to maximize the resources used, this is done so that the organizational goals of the organization can be carried out properly (*Ikramullah & Sirojuddin*, 2020; *Indawati et al.*, 2022). *Terry* divides the implementation of management into four stages the planning or planning stage, the organizing stage, the next stage is implementation stage or actuating and the last stage is the controlling stage. These four stages of management are better known as *POAC* (*Terry*, 1977).

The field of Information and Communication technology is included in the science and technology clump with its main function of retrieving, collecting, processing, and storing after that it is distributed in the form of information presented (*Amri et al.*, 2022; *Ilmi et al.*, 2021). Information and communication technology is a unit consisting of information technology and communication technology with the function of processing data into information so that communication technology can be sent from one person to another or there is interaction between users (users) (*Lubis et al.*, 2022; *Morris & Rohs*, 2021). According to the *Puskur Kemendiknas*, the scope of Information and Communication Technology includes two parts including Information technology, namely everything related to process activities, its use as a tool, used for manipulation, and management of data into information.

While communication technology is a means used to communicate data that has been processed and distributes the data from one communication device to another (*Rusman*, 2016). The learning room is a room or place used for teaching and learning activities between teachers and students held at a certain time (*Amzat*, 2022). According to researchers, today's learning space can be in the form of a place or better known as a class or it can be a virtual or virtual room that is used for learning activities (*Aliyyah et al.*, 2020). While communication

technology is a means used to communicate data that has been processed and distributes the data from one communication device to another.

The learning room is a room or place used for teaching and learning activities between teachers and students held at a certain time (Sudiami, 2019). According to researchers, today's learning space can be in the form of a place or better known as a class or it can be a virtual or virtual room that is used for learning activities (Aliyyah et al., 2020). While communication technology is a means used to communicate data that has been processed and distributes the data from one communication device to another (Hastasari et al., 2022). The learning room is a room or place used for teaching and learning activities between teachers and students held at a certain time. According to researchers today's learning space can be in the form of a place or better known as a class or it can be a virtual or virtual room that is used for learning activities (Zarkasyi et al., 2020).

The presence of information and communication technology in the learning room, especially in the classroom, will increase the motivation of teachers and students to be creative in displaying creative, attractive and interesting learning (Parisi et al., 2021; Vieluf & Göbel, 2019). With learning media using information and communication technology, it is hoped that the quality of learning will increase, especially for students who will ultimately improve the quality of education as expected (Berlingerio et al., 2019). To see the success of the application of information and communication technology in the learning room, a well-managed evaluation is needed, so that the level of success of its application can be seen and measured (Whitton, 2018). "One evaluation model that is widely used by educational institutions in measuring the success of a program is to use *CIPP Model (Stufflebeam's Model)*. Model created by *Stufflebeam* it evaluates the program from the start *Context, Input, Process to Product*" (Ananda & Rafida, 2018).

Educational institutions are one of the institutions that use information and communication technology a lot as a medium for learning, especially in the classroom (Hadi et al., 2019). Various benefits can be felt by educational institutions including the availability of media for data management and processing into educational information, integration into a unified whole between data and information to support decision-making considerations (Chuang et al., 2021). And there is appropriate and accurate information for users or users and for those who need information in the educational environment (Bulturbayevich, 2021; Kerimbayev et al., 2020). Educational institutions are included in institutions that use information and communication technology a lot as a medium to support learning. optimizing information and communication technology in the learning space, It is hoped that it can realize the creativity and mindset of teachers and students as well as the mindset of school residents and the community (Rochaety, 2009).

One of the educational institutions that uses information and communication technology in the learning room is Madrasah Aliyah Al-Musthofa Garut, hereinafter known as Madrasah Aliyah Al-Musthofa. the use of information and communication technology in the learning room is a superior program for Madrasah Aliyah Al-Musthofa by involving many parties, especially the IT sector, teachers and students. The use of information and communication technology in this learning space aims to improve the quality of learning services so that the quality of teachers and students increases. Management of the use of

information and communication technology in this learning room starts from the planning stage by determining the vision, mission and goals to be achieved.

The use of information and communication technology is carried out by teachers and students in the classroom. The use of information and communication technology in the classroom is guided by standard operating procedures that have been made by the IT Division and determined by the head of the madrasa. The next stage is the supervision carried out by the head of the madrasa on the course of the learning process using information and communication technology in the learning room. supervision is carried out accompanied by the deputy head of the madrasa and the IT sector. This supervision aims to determine the extent to which the use of information and communication technology can run optimally in the classroom. Furthermore, the results of the supervision are used as evaluation material to correct various deficiencies, weaknesses and errors found.

RESEARCH METHODS

In this study, the researcher chose to use qualitative methods in order to be able to see, witness and find out various things in detail regarding the activities of using information and communication technology in the learning room. While (Sugiyono, 2008) interprets Qualitative research as a method or research model based on post-positivism philosophy, qualitative research is used to examine the state of objects that are natural. In this research, The researcher becomes the main character of the success or failure of a qualitative research. The samples or data sources needed are accommodated purposively or snowball sampling. data collection techniques using a combination or tri-angulation with qualitative or inductive data analysis. The results of qualitative research are more focused on meaning than generalization (Moleong, 1989).

Instruments and techniques in collecting data and information are carried out by means of field studies or observations, conducting interviews with related parties and conducting required documentation studies. Furthermore, triangulation of the data and information that has been collected is carried out. This technique is in line with what Sugiyono said that Observation, interview, documentation study and triangulation techniques are instruments and techniques for collecting data and information (Creswell, 2012). In analyzing the data, the researcher reduces the data and information that is incorrect or inaccurate. This reduction model adopts (Miles & Huberman, 1994) opinion that it is necessary to reduce the data obtained, then display the reduced data, then provide a conclusion and carry out filtering and verification and filtering of data and information. This qualitative research is used to describe the results of the evaluation analysis of the use of information and communication technology in the learning space in the classroom Madrasah Aliyah Al-Musthofa Purusana Garut.

RESULT AND DISCUSSION

Planning the Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

At this planning stage, various activities were found related to the preparation of the use of Information and Communication Technology in the Learning Room in the classroom Madrasah Aliyah Al-Musthofa, including: 1) the existence of deliberation between the foundation, the madrasa and the madrasa committee. The results of the deliberation determine the importance of The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa, 2) the establishment of a vision which is the result of deliberation between the foundation, madrasa and madrasa committee. The vision that is carried out is "Creating Outstanding Human Resources for Graduates in Digital Literacy in 2030". After determining the vision, the head of the madrasa and his staff held a meeting to determine the mission of the school The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa, its mission is 1) to create a madrasa that excels in the field of information and communication technology, 2) to create a madrasa that prioritizes the quality of learning services and 3) to create superior human resources in the field of information and communication technology.

The next step, in a meeting, the head of the madrasa, assisted by his staff, takes an inventory of the resources they have, both human resources and facilities and infrastructure resources. The inventory is intended to determine the extent to which madrasas have the ability to use Information and Communication Technology in the Learning Room. and no less important, the head of the madrasa and his staff estimate the costs or budget needed for the provision of information and communication technology in the learning room. Of course, in this estimation, the head of the madrasa really considers the financial capacity of the madrasa. The final stage in this planning is for the head of the madrasa and his staff to set the goals of the use of information and communication technology in the learning room in the school Al-Musthofa Madrasah. The goals set are "Realizing Superior Human Resources in Responding to the Digital Era"

Organizing the Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

Some of the activities carried out by Madrasah Aliyah Al-Musthofa in organizing are: 1). The madrasa head forms the IT Division which consists of elements of school operators, elements of computer teachers and elements of administration. These three elements are led by a computer teacher who is responsible for the use of information and communication technology in the learning room at the university Madrasah Aliyah Al-Musthofa Purbasana Garut. The IT sector is determined by the head of the madrasa through an assignment letter which is valid for three months from the signing of the assignment letter. 2). Armed with a letter of assignment, the IT Division started its work by making a usage schedule as a guide in the development of information and communication technology in the learning room. the usage schedule is made for three months according to the assignment letter given. The contents of the usage schedule include the start date, development date and end

date of the usage program Information and Communication Technology in the Learning Room at Al-Musthofa Madrasah.

The next task in the IT Sector is to inventory the capabilities of human resources (personnel who are members of the IT Sector) and take an inventory of the facilities and infrastructure needed such as study rooms, computer units, lcd projector units, sound systems, computer networks, software or software owned. From the results of the inventory, the IT Division submitted various requests for the procurement of insufficient personnel, inadequate facilities, equipment and equipment. The application is addressed to the head of the madrasa. In accordance with the capabilities of the madrasa, the IT sector began to design and build information and communication technology in the learning room. the design is carried out for one and a half months (1.5 months), starting from hardware installation, software installation, network installation, communication equipment installation. This design stage that takes the most time is the design of learning materials and learning videos that must be stored in information and communication technology. After completing the design of information and communication technology, the IT sector makes standard operating procedures for the use of information and communication technology in the learning room as a guide for teachers and students. The last task in the IT field at this stage of organizing is to provide training on the use of information and communication technology in the learning room. the IT sector makes standard operating procedures for the use of information and communication technology in learning rooms as a guide for teachers and students. The last task in the IT field at this stage of organizing is to provide training on the use of information and communication technology in the learning room. the IT sector makes standard operating procedures for the use of information and communication technology in learning rooms as a guide for teachers and students. The last task in the IT field at this stage of organizing is to provide training on the use of information and communication technology in the learning room.

Implementation of the Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

The results of the organizing stage are implemented in the implementation of the use of information and communication technology in the study room at Madrasah Aliyah Al-Musthofa. At this stage, the teacher as a user of information and communication technology in the study room, provides learning to students with the help of information and communication technology. All learning files are stored on a server that is connected to an intranet facility with a class computer. Teachers can access learning from attendance attendance, student attendance, displaying learning materials, learning videos and can make learning reports. while students can download learning materials through the intranet space that has been provided by first registering and logging in to the student room.

At the stage of using information and communication technology in this learning room, the teacher has access as a user who cannot change the available learning materials. However, teachers can develop learning materials through other software or can be explained manually on the blackboard. In this information and communication technology, teachers can also view and access various information related to learning and other school activities. Various existing information can be passed on by the teacher to the students. In addition to teachers, students

through the access that has been provided by the IT Division as admin can also view and access learning information and school activity information on this intranet-based information and communication technology facility.

Supervision of the Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

The use of information and communication technology in the learning room by teachers and students at Madrasah aliyah al-Musthofa. Its implementation is supervised by the principal, vice principal and IT sector. This supervision is not to scare or intimidate, but rather to find out the extent to which the expected goals are achieved from the use of information and communication technology in the learning room. The supervision carried out by the principal is by routinely entering the classroom by first asking permission from the teacher and students to see whether the use of information and communication technology is optimal or not. And of course to see how far the ability of teachers to use information and communication technology in the learning room.

After conducting the supervision, the principal, vice principal and IT Division evaluate the findings on the implementation of the supervision carried out. evaluation is intended to find solutions to various deficiencies and errors that occur in the implementation of the use of information and communication technology in the learning room. the results of the evaluation carried out are expected to improve the performance of the use of information and communication technology in the learning room, both teacher performance and the performance of information and communication technology itself.

PROGRAM EVALUATION

Context EvaluationThe Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

Context evaluation is a form of evaluation of the strengths and weaknesses of an organization. This evaluation is very important to see the extent of the potential and the limitations that exist, especially in the madrasa aliyah al-musthofa. Researchers as evaluators in the program of using information and communication technology in the learning room at Madrasah aliyah Al-Musthofa must be able to find the potential and weaknesses of the madrasa. In the field of education discusses context evaluation in the scope of capital, materials, facilities and strategic plans that have been outlined in achieving educational goals, the input components consist of teachers, students, teachers, design or design, facilities and facilities (Genareo, 2022; Lee et al., 2022). SWOT analysis (*Strength, Weakness, Opportunity and Threat*) became the basis for researchers as evaluators to analyze the planning stages carried out by madrasa aliyah al-musthofa. There are at least two factors that must be analyzed, namely internal factors in the form of: 1) strength consisting of: The ability of madrasa resources, the ability of graduates, the learning service facilities provided, and the available facilities and infrastructure, 2) Weaknesses that include: Lack of human resources for madrasas in the field of information and communication technology, Inadequate forms of service, human resources for graduates who are not as expected, inadequate equipment and tools and minimal financial condition of the madrasa.

External Factors (Opportunities) owned include: The existence of Islamic colleges and universities using Islamic boarding schools in the district, the opportunity to become an excellent Madrasah using information and communication technology, the opportunity to graduate superior human resources using information and communication technology, the opportunity to become a National Madrasah Aliyah (Lewis et al., 2018; Muazza, 2021). External factors (Threats) that are owned include: the existence of madrasahs or schools that first use Information and Communication Technology in the learning space, Potential entry of cyber crime (cyber crime), potential for hoax or incorrect information, potential for users to open something that is negative and useless (Haseski, 2020).

After finding internal and external factors based on the swot analysis that has been done, the next analysis uses Internal Environmental Analysis (ALI) and External Environmental Analysis (ALE). The researcher's Internal Environmental Analysis (ALI) on the management of the use of information and communication technology in the learning room at Madrasah Aliyah Al-Musthofa was carried out by researching and identifying the conditions within the Madrasah Aliyah Al-Musthofa itself, both in the form of strengths and weaknesses of the Madrasah Aliyah. Al-Musthofa. The explanation of the results of the internal environmental analysis (ALI) is described as follows.

Analysis of madrasa human resources. In terms of the quantity of educators, education personnel and employees with other duties and functions, the numbers are sufficient so that they can meet the required minimum standards (Mugizi et al., 2021). The majority of teachers at Madrasah Aliyah al-Musthofa have also been certified educators (teacher certification). The analysis of teacher competence, also for the size of the madrasa aliyah in the area is quite capable, each teacher has the ability according to his discipline (Azizah et al., 2021). Likewise, the analysis of the education level of teachers, education staff and other employees, almost all of them have a bachelor's degree level of education according to their scientific discipline. However, the results of an in-depth evaluation of the condition of human resources at Madrasah aliyah al-Musthofa found various shortcomings and weaknesses, including: there are no teachers who have competency certification from either the professional certification body (LSP) or certification from vendors.

This is certainly a challenge for teachers at Madrasah Aliyah al-Musthofa to immediately follow competency certification according to their disciplines in order to get recognition of their competencies. Next is the lack of ability of teachers, education personnel and other employees to information and communication technology, this can be seen from the software used in the learning room which is only limited to the existing facilities in Microsoft Office. This is certainly a very serious challenge for madrasah aliyah al-musthofa to recruit teachers or employees who are skilled in the field of information and communication technology.especially in the study room (Hidayat et al., 2022).

Analysis of facilities and types of services. For the size of the madrasa aliyah in the area, the facilities at the madrasa aliyah al-musthofa are quite complete both learning facilities, free wifi facilities, facilities for sports, facilities for meetings or meetings, prayer rooms and other religious activities, facilities for practice or practicum, library facilities, toilet facilities for men and women and other supporting facilities (Arnold et al., 2019). Likewise, the various types of services available at Madrasah Aliyah Al-Musthofa are quite complete, such as learning information services, school information services, health services for first aid in accidents,

financial services, administrative services and various other services. The researcher's evaluation of the existing facilities is mainly on wifi access which is very slow so that internet access is often hampered and often not connected. Therefore, to realize the vision, mission and objectives of the use of information and communication technology in the learning room at Madrasah Aliyah Al-Musthofa, adequate bandwidth capacity is needed.

Analysis of madrasa finances. The financial position of the madrasah aliyah al-musthofa is included in the sufficient category, sufficient in the sense that the madrasa is able to finance various expenses both for teacher and employee salaries as well as for madrasa operational costs (Atmadja et al., 2021; Chang et al., 2020). Of course, the intended size is adjusted to the minimum standard of madrasa ability in the region. However, to realize the vision, mission and goals of the madrasa, especially in terms of the use of information and communication technology in the learning room, of course requires funds or costs that are not small. Therefore, the cost constraint is one of the main problems in the use of information and communication technology in the learning space. the evaluation of the researcher on the availability of sufficient funds requires the madrasa to access various assistance from the government and the private sector in order to optimize the use of information and communication technology in the learning space. In addition, the evaluation of the researchers suggested to the madrasa to be able to cooperate with other parties concerned with education, especially to help realize the use of adequate information technology (Asmarani et al., 2021).

External Environmental Analysis (ALE) at Madrasah Aliyah Al-Musthofa by doing identification of environmental conditions outside the organization (Madrasah Aliyah Al-Musthofa) both opportunities and threats. In the form of opportunities, for example, students at Madrasah Aliyah Al-Musthofa can continue their education to higher education levels, especially universities in the Garut area. In addition, there are opportunities for students of Madrasah Aliyah Al-Musthofa, with their skills plus the ability to use information and communication technology, they can be channeled to work in various companies in the Garut area. While the form of threats (Threats) that can come from outside such as competition between madrasas and schools, especially in the use of information and communication technology in the learning space.

Input Evaluation The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

In evaluating the input, several things need to be evaluated by an evaluator, in order to determine and choose what needs must be available in the use of information and communication technology at Madrasah Aliyah Al-Musthofa. This determination and selection is based on the results of the context evaluation that has been carried out. several elements that must be evaluated in the evaluation of this input such as human resources, facilities and equipment, budget costs, and procedures or rules required. More specifically in the education space, the evaluation of inputs involves the evaluation of the capital, materials, facilities and strategies that are determined in realizing educational goals. the input components consist of students, teachers, design, facilities, and facilities.

Analysis of capital evaluation. The available capital for the use of information and communication technology in the learning room at Madrasah Aliyah al-Musthofa is in the form of human capital and financial capital. The results of the evaluation analysis of capital in the form of human resources, there is only a computer teacher and a computer operator who

is quite understanding and experienced in the field of information and communication technology, and even then the discipline of science is not computer science or is linear with computer science. Therefore, to realize the vision, mission and goals of using information and communication technology in the learning space, the madrasa must immediately recruit people who are experts in the field of computer science. While the results of the evaluation analysis of the financial condition of the madrasa, it takes a lot of money for the use of information and communication technology in the learning room. This large cost can be charged to parents by increasing the student's monthly tuition. However, in the current situation of the COVID-19 pandemic and considering the economic capabilities of students' parents, wise considerations are needed regarding the decision to increase the student's monthly tuition. Another way can be done through collaboration with the government or with other parties who care about education (Aykan & Yildirim, 2022; Yu & Jee, 2021).

Analysis of the evaluation of materials. The material here is the material that will be used in the learning room. the results of the evaluation analysis of the materials prepared, show that the lack of ability in the IT field to design or design materials, the materials prepared are still very simple using Microsoft Office and incomplete. Therefore, the handling of the design or design of materials or materials must be carried out by people who are experts in their fields such as the field of database management and the field of graphic design. The madrasa aliyah al-musthofa must again revise or improve the materials that will be the main elements in the use of information and communication technology in the learning room. In information and communication technology there must be a teacher database, a database of teaching materials or learning materials, and student databases. The databases in question are used to carry out the attendance and learning process in the classroom.

Analysis of the evaluation of facilities. Facilities in the form of everything related to the procurement of goods, equipment and equipment. The results of the analysis of the evaluation of the facilities, it appears that the information and communication technology devices in the learning room have not been fulfilled (Deng et al., 2019; Shi et al., 2021). The availability of computers or laptops, LCD projectors, sound systems and communication networks is an obligation that must be fulfilled by Madrasah Aliyah Al-Musthofa in all classrooms. With the financial capacity and with the collaboration that can be done, the madrasa must immediately provide adequate information and communication technology facilities in every classroom (Sugiyono, 2021). The availability of these facilities is one of the keys to success in achieving the vision, mission and goals of the use of information and communication technology in the learning space. other than that,

Analysis of strategy evaluation. The results of the analysis of the strategy carried out by the madrasa aliyah al-musthofa from planning to supervision need to be evaluated. At the planning stage, the madrasah must really make a strategic plan that is measurable and proportional in accordance with the capabilities of the madrasa itself. The evaluator sees that the determination of the vision, mission and goals of using information and communication technology in the learning space is too high, although it is not something impossible to realize, but of course it must measure the ability of the madrasa itself. Then in terms of organization, the strategy that must be carried out by madrasahs is to recruit at least one person who is truly an expert and experienced in the field of information and communication technology so that he can be used as a project leader or project manager in the development of this information

and communication technology. In terms of implementation, the strategy that must be carried out by the teacher is to really understand the use of information and communication technology, so that the teacher must always learn to practice the facilities and uses of information and communication technology, especially in the learning room. at the supervision stage, the strategy that must be carried out by the head of the madrasa according to the researcher as an evaluator, the principal does not need to enter the learning room or classroom, this will disrupt or stiffen the learning atmosphere.

Process Evaluation The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

In process evaluation, an evaluator must analyze the plans that have been set and what needs to be improved in the planning stage. In process evaluation, several things must be explained by an evaluator regarding "what" (what) the activities carried out in implementing a program, (who) who is assigned to carry out a program, (when) when the implementation of a program begins and when finished. In essence, process evaluation is carried out to ensure the success of each activity carried out in a program.

What activities do (what)? The activities carried out at the planning stage of the activities carried out are: the existence of deliberation activities between the foundation, the madrasah and the madrasa committee to determine policies for the use of information and communication technology in the learning room at the al-musthofa madrasah. Analysis of the evaluation of this activity is that the madrasah makes a vision, mission and goals that are not in accordance with the madrasa's abilities, both human resource capabilities, facilities and infrastructure capabilities as well as school financial capabilities. Meanwhile, in organizing activities, the activities carried out by the madrasa are to establish the IT sector with the duties and responsibilities to carry out the development of information and communication technology in the learning room. evaluation analysis at this stage of organizing is, the school does not recruit for the availability of skilled and qualified human resources in the field of information and communication technology so that the results are not optimal. At the implementation stage The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa even though teachers and students can operate various hardware and software facilities available in the learning room, it is unfortunate that the available facilities are only one computer unit which is inadequate in each classroom with learning facilities using Microsoft Power Point with a simple design. . This is because the design or design of learning materials is only carried out by the IT sector from internal schools. While the activities carried out at the Supervision of the Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa is a monitoring and evaluation carried out by the head of the madrasa, deputy head of the madrasa and the IT sector on the use of information and communication technology by teachers and students in the learning room. The evaluation analysis of this monitoring activity shows that the form of supervision is carried out less well planned and less structured so that the results of the supervision are not optimal for future improvements.

Who are the personnel on duty (Who). In the use of information and communication technology in the learning room at Madrasah aliyah al-Musthofa, the head of the madrasa establishes an IT field consisting of computer teachers, school operators, administration or

administration and finance departments. The computer teacher acts as the person in charge or program leader. Analysis of the evaluation of the IT field that was formed, researchers as evaluators saw this as less than optimal considering that the IT field that was formed was partly not people who were experts and experienced in their fields. For example, computer teachers are only limited to understanding computer learning materials given in madrasas, while computer operators only understand the operation of the software available and used according to their duties. Therefore, the results of the evaluation suggest to the madrasah to recruit qualified human resources in their fields, for example an information systems project manager who understands well about the development of information and communication technology, then recruits a systems analyst who is an expert in designing information systems, then a system analyst is needed. programmer in charge of designing programs, in addition to installing hardware, software and information and communication technology networks, an IT Support is needed. An evaluation that is no less important is that the madrasah must also recruit a database administrator who is specifically assigned to manage the database of teachers, students, learning materials and other databases in the madrasa aliyah al-musthofa.

When do the activities start and end (when)? Information and communication technology development activities in the learning room at Madrasah Aliyah Al-Musthofa began on January 15, 2019 and ended on April 15, 2019. During the development of information and communication technology, the IT sector made an implementation schedule, this schedule was compiled to provide information details about the tasks and work that must be done every day. With this implementation schedule, the head of the madrasa can find out and monitor daily developments regarding information system development activities in the learning room, what has been completed and what has not been done and what will be done on that date and the next date. The evaluation analysis of the researcher as the evaluator in determining this time is that the time provided is too long to see the development of information technology in the resulting learning space. After evaluating what work is being done, such as providing computers, LCD projectors, sound systems, hardware installation, network installation, software installation, material design using Microsoft Power Point and training for teachers, according to the researcher, the work can be completed in a maximum of two months.

Product Evaluation The Use of Information and Communication Technology in the Learning Room at Madrasah Aliyah Al-Musthofa

Product evaluation is needed as a consideration for the head of the madrasa to determine what decisions will be made in the future after evaluating the use of information and communication technology in the learning room, especially at the madrasa aliyah al-musthofa. To evaluate the product from the use of information and communication technology in the learning room, the evaluator evaluates several product evaluation components, namely: 1) impact evaluation, 2) Effectiveness evaluation, 3) sustainability evaluation, and 4) transportability evaluation (evaluation of transformation). The description of the results of the evaluation analysis of the four evaluation components is described as follows.

Evaluation of Effect (impact evaluation). Use information and communication technology in the learning room at Madrasah Aliyah Al-Musthofa has an effect on improving

the quality and quality of learning services in the classroom. It is easier for teachers to convey material, display interesting and video-based learning materials so that learning materials look varied (Chisholm et al., 2021). The use of information and communication technology in the learning room also has an impact on improving the quality and ability of teachers to information and communication technology, especially the existing facilities in the learning room. teachers are no longer ignorant of using information and communication technology.

Improving the quality of learning services and improving the quality of teacher teaching have an impact on improving the quality and quality of students both in terms of understanding and mastering learning materials as well as in terms of the use of information and communication technology in learning spaces (Ma'arif et al., 2022). The evaluation analysis of the influence or impact of the use of information and communication technology in the learning room at Madrasah aliyah al-Musthofa is that seeing the rapid and rapid development of information and communication technology, the researcher as an evaluator sees that the use of information and communication technology in the learning room has not been maximized. utilized, this affects the lack and slowness of improving the quality and quality of teachers and students in following the development of information and communication technology (Baharun et al., 2021; Idris et al., 2022).

Effectiveness Evaluation (*effectiveness evaluation*) Use Information and communication technology in the learning room at Madrasah Aliyah Al-Musthofa is quite effective. Some activities that were previously carried out manually have turned into computerized, for example, the attendance process for learning is carried out online using intranet facilities, then the process of providing learning materials using network facilities connected to the intranet. Evaluation of the level of effectiveness of the use of information and communication technology in the learning room is found in the ineffectiveness of the computer configuration used so that it takes a long time, this has an impact on the use of computers being slow.

Sustainability Evaluation: After measuring the extent to which the objectives have been achieved from the use of information and communication technology in the learning room, then the madrasah determines whether the program using this information and communication technology will be continued or discontinued or replaced with other programs (Caputo et al., 2021). The evaluation analysis of the sustainability of this program concluded that given the importance of information and communication technology to be used in learning spaces, this program continued with several notes that must be improved. These notes include, making a vision, mission and objectives in accordance with the madrasa's capabilities, recruitment of human resources who are experts in information and communication technology, budget availability, availability of facilities, equipment and other supports (Brito et al., 2018).

Evaluation of Transformation (*Transportability evaluation*). Transformation is essentially a renewal of various aspects, both aspects of information and communication technology used, aspects of human resources, aspects of infrastructure and other supporting aspects. The transformation is carried out to increase the effectiveness and benefits that can be felt by learning residents, especially to continue to improve the quality of learning services. The transformation evaluation analysis that must be carried out by Madrasah Aliyah Al-Musthofa is the most important thing is the availability of qualified human resources in the

field of information technology. This is done to update the hardware and software used to be more up to date according to the times.

CONCLUSION

Information and Communication Technology is a major supporting factor in the success of today's learning. Madrasah aliyah al-Musthofa is one of the madrasahs that focuses on the use of information and communication technology in the learning space. In its development, the management function becomes the basis for Madrasah Aliyah Al-Musthofa to realize the use of information and communication technology in the learning space. The management function used is Terry's management function which consists of Planning, Organizing, Actuating and Controlling (POAC). In measuring the success of using information and communication technology in the learning room, the researcher evaluates this educational program using the Stufflebeam's Model or CIPP Model. Findings from the results of the research illustrate that the management function has been carried out well by Madrasah Aliyah Al-Musthofa but there are still various shortcomings and weaknesses both in terms of human resources and other resources. These shortcomings and weaknesses have an impact on not achieving the objectives of the use of information and communication technology in the learning space at Madrasah aliyah al-Musthofa.

REFERENCES

- Aliyah, R. R., Ayuntina, D. R., Herawati, E. S. B., Suhardi, M., & Ismail. (2020). Using of Contextual Teaching and Learning Models to Improve Students Natural Science Learning Outcomes. *Indonesian Journal of Applied Research (IJAR)*, 1(2), 65–79. <https://doi.org/10.30997/ijar.v1i2.50>
- Al-Shanawani, H. M. (2019). Evaluation of Self-Learning Curriculum for Kindergarten Using Stufflebeam's CIPP Model. *SAGE Open*, 9(1), 2158244018822380. <https://doi.org/10.1177/2158244018822380>
- Amri, A., Lassa, J. A., Tebe, Y., Hanifa, N. R., Kumar, J., & Sagala, S. (2022). Pathways to Disaster Risk Reduction Education integration in schools: Insights from SPAB evaluation in Indonesia. *International Journal of Disaster Risk Reduction*, 73, 102860. <https://doi.org/10.1016/j.ijdr.2022.102860>
- Amzat, I. H. (Ed.). (2022). *Supporting Modern Teaching in Islamic Schools: Pedagogical Best Practice for Teachers*. Routledge. <https://doi.org/10.4324/9781003193432>
- Ananda, R., & Rafida, T. (2018). *Pengantar Evaluasi Program Pendidikan*. Cv. Pusdikra Mitra Jaya.
- Arnold, U., Söbke, H., & Reichelt, M. (2019). SimCity in Infrastructure Management Education. *Education Sciences*, 9(3), 209. <https://doi.org/10.3390/educsci9030209>
- Asmarani, A., Sukarno, S., & Widdah, M. E. (2021). The Relationship of Professional Competence with Teacher Work Productivity in Madrasah Aliyah. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 6(2), 220–235. <https://doi.org/10.31538/ndh.v6i2.1365>
- Atmadja, A. T., Saputra, K. A. K., Tama, G. M., & Paranoan, S. (2021). Influence of Human Resources, Financial Attitudes, and Coordination on Cooperative Financial

- Management. *The Journal of Asian Finance, Economics and Business*, 8(2), 563–570. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0563>
- Aykan, A., & Yıldırım, B. (2022). The Integration of a Lesson Study Model into Distance STEM Education during the COVID-19 Pandemic: Teachers' Views and Practice. *Technology, Knowledge and Learning*, 27(2), 609–637. <https://doi.org/10.1007/s10758-021-09564-9>
- Ayyusufi, A. M., Anshori, A., & Muthoifin, M. (2022). Evaluation of The CIPP Model on The Tahfidz Program in Islamic Boarding Schools. *Nazḥruna: Jurnal Pendidikan Islam*, 5(2), 466–484. <https://doi.org/10.31538/nzh.v5i2.2230>
- Aziz, S., Mahmood, M., & Rehman, Z. (2018). Implementation of CIPP Model for Quality Evaluation at School Level: A Case Study. *Journal of Education and Educational Development*, 5(1), 189–206.
- Azizah, U., Rahman, C., Farida, I., & Nurmilasari, N. (2021). Pemahaman Guru Terhadap Standar Isi Sekolah Lanjutan Tingkat Pertama Kota Bandung. *Tafkir: Interdisciplinary Journal of Islamic Education*, 2(2), 191–206.
- Baharun, H., Hefniy, H., Silviani, S., Maarif, M. A., & Wibowo, A. (2021). Knowledge Sharing Management: Strategy for Improving the Quality of Human Resources. *AL-TANZIM: Jurnal Manajemen Pendidikan Islam*, 5(1), 129–139. <https://doi.org/10.33650/al-tanzim.v5i1.1831>
- Berlingerio, M., Bonchi, F., Gärtner, T., Hurley, N., & Ifrim, G. (2019). *Machine Learning and Knowledge Discovery in Databases: European Conference, ECML PKDD 2018, Dublin, Ireland, September 10–14, 2018, Proceedings, Part I*. Springer.
- Brito, R. M., Rodríguez, C., & Aparicio, J. L. (2018). Sustainability in Teaching: An Evaluation of University Teachers and Students. *Sustainability*, 10(2), 439. <https://doi.org/10.3390/su10020439>
- Bulturbayevich, M. B. (2021). Challenges of Digital Educational Environment. *Academic Journal of Digital Economics and Stability*, 4, 54–60.
- Caputo, F., Ligorio, L., & Pizzi, S. (2021). The Contribution of Higher Education Institutions to the SDGs—An Evaluation of Sustainability Reporting Practices. *Administrative Sciences*, 11(3), 97. <https://doi.org/10.3390/admsci11030097>
- Chang, C.-L., McAleer, M., & Wong, W.-K. (2020). Risk and Financial Management of COVID-19 in Business, Economics and Finance. *Journal of Risk and Financial Management*, 13(5), 102. <https://doi.org/10.3390/jrfm13050102>
- Chisholm, L. P., Jackson, K. R., Davidson, H. A., Churchwell, A. L., Fleming, A. E., & Drolet, B. C. (2021). Evaluation of Racial Microaggressions Experienced During Medical School Training and the Effect on Medical Student Education and Burnout: A Validation Study. *Journal of the National Medical Association*, 113(3), 310–314. <https://doi.org/10.1016/j.jnma.2020.11.009>
- Chuang, T.-Y., Yeh, M. K.-C., & Lin, Y.-L. (2021). The Impact of Game Playing on Students' Reasoning Ability, Varying According to Their Cognitive Style. *Educational Technology & Society*, 24(3), 29–43.
- Creswell, J. W. (2012). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.

- Deng, C., Zhang, X., Yang, Y., & Yang, J. (2019). Research on scaling design and applicability evaluation of integral thermal-hydraulic test facilities: A review. *Annals of Nuclear Energy*, 131, 273–290. <https://doi.org/10.1016/j.anucene.2019.03.042>
- Genareo, V. (2022). Methods and Models for Literacy Program Evaluations. In *A Field Guide to Community Literacy*. Routledge.
- Ghorbanzadeh, O., Blaschke, T., Gholamnia, K., Meena, S. R., Tiede, D., & Aryal, J. (2019). Evaluation of Different Machine Learning Methods and Deep-Learning Convolutional Neural Networks for Landslide Detection. *Remote Sensing*, 11(2), 196. <https://doi.org/10.3390/rs11020196>
- Hadi, S., Andrian, D., & Kartowagiran, B. (2019). Evaluation Model for Evaluating Vocational Skills Programs on Local Content Curriculum in Indonesia: Impact of Educational System in Indonesia. *Eurasian Journal of Educational Research*, 19(82), 45–62.
- Haseski, H. I. (2020). Cyber Security Skills of Pre-Service Teachers as a Factor in Computer-Assisted Education. *International Journal of Research in Education and Science*, 6(3), 484–500.
- Hastasari, C., Setiawan, B., & Aw, S. (2022). Students' communication patterns of islamic boarding schools: The case of Students in Muallimin Muhammadiyah Yogyakarta. *Heliyon*, 8(1), e08824. <https://doi.org/10.1016/j.heliyon.2022.e08824>
- Hidayat, A., Fatimah, S., & Rosidin, D. N. (2022). Challenges and Prospects of Islamic Education Institutions and Sustainability in The Digital Era. *Nazhruna: Jurnal Pendidikan Islam*, 5(2), 351–366. <https://doi.org/10.31538/nzh.v5i2.2106>
- Idris, A., Trisnamansyah, S., & Wasliman, I. (2022). Implementation of The Internal Quality Assurance System in Improving School Quality. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 3(1), 27–34. <https://doi.org/10.31538/munaddhomah.v3i1.96>
- Ikramullah, I., & Sirojuddin, A. (2020). Optimalisasi Manajemen Sekolah Dalam Menerapkan Pendidikan Inklusi di Sekolah Dasar. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 1(2), 131–139. <https://doi.org/10.31538/munaddhomah.v1i2.36>
- Ilmi, M. U., Setiawan, F., Hikmah, M. N., Kharisma, A., Feryawan, D., & Hanafie, A. A. (2021). The Basic Concepts of Evaluation and Its Implementation in IRE Lessons in The Pandemic Era. *Tafkir: Interdisciplinary Journal of Islamic Education*, 2(2), 175–190. <https://doi.org/10.31538/tijie.v2i2.50>
- Indawati, N., Kartiko, A., Suyitno, S., Sirojuddin, A., & Fuad, Z. (2022). Improving The Religious Character of Educators Through Exemplary of Principles. *AL-TANZIM: Jurnal Manajemen Pendidikan Islam*, 6(3), 789–801. <https://doi.org/10.33650/al-tanzim.v6i3.3691>
- Kerimbayev, N., Nuryim, N., Akramova, A., & Abdykarimova, S. (2020). Virtual educational environment: Interactive communication using LMS Moodle. *Education and Information Technologies*, 25(3), 1965–1982. <https://doi.org/10.1007/s10639-019-10067-5>
- Lee, K.-M., Ko, H.-J., Lee, G. H., Kim, Y.-A., Jung, S.-P., & Kim, A.-S. (2022). Evaluation of a Follow-Up Health Consultation Program for Patients with Coronavirus Disease 2019 in Korea: Using the Context–Input–Process–Product Model. *International Journal of Environmental Research and Public Health*, 19(13), 7996. <https://doi.org/10.3390/ijerph19137996>
- Lewis, K. L., Umstead, K. L., Johnston, J. J., Miller, I. M., Thompson, L. J., Fishler, K. P., Biesecker, L. G., & Biesecker, B. B. (2018). Outcomes of Counseling after Education

- about Carrier Results: A Randomized Controlled Trial. *The American Journal of Human Genetics*, 102(4), 540–546. <https://doi.org/10.1016/j.ajhg.2018.02.009>
- Lippe, M., & Carter, P. (2018). Using the CIPP Model to Assess Nursing Education Program Quality and Merit. *Teaching and Learning in Nursing*, 13(1), 9–13. <https://doi.org/10.1016/j.teln.2017.09.008>
- Lubis, M. S. A., Fatmawati, E., Pratiwi, E. Y. R., Sabtohadhi, J., & Damayanto, A. (2022). Understanding Curriculum Transformation Towards Educational Innovation in The Era of All-Digital Technology. *Nazbruna: Jurnal Pendidikan Islam*, 5(2), 526–542. <https://doi.org/10.31538/nzh.v5i2.2110>
- Ma'arif, M. A., Zuana, M. M. M., & Sirojuddin, A. (2022). Improving Islamic Self-Motivation for Professional Development (Study in Islamic Boarding Schools). In *Supporting Modern Teaching in Islamic Schools*. Routledge.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. SAGE.
- Moleong, L. J. (1989). *Metodologi penelitian kualitatif*. Remadja Karya.
- Morris, T. H., & Rohs, M. (2021). The potential for digital technology to support self-directed learning in formal education of children: A scoping review. *Interactive Learning Environments*, 0(0), 1–14. <https://doi.org/10.1080/10494820.2020.1870501>
- Muazza, M. (2021). In Search of Quality Human Resources in Education: Professional Competency, Compensation, Working Climate, and Motivation toward Vocational Teachers' Performance. *Indonesian Research Journal in Education | IRJE |*, 5(1), 175–191. <https://doi.org/10.22437/irje.v5i1.12497>
- Mugizi, W., Rwothumio, J., & Amwine, C. M. (2021). Compensation Management and Employee Wellbeing of Academic Staff in Ugandan Private Universities during COVID-19 Lockdown. *Interdisciplinary Journal of Education Research*, 3(1), 1–12. <https://doi.org/10.51986/ijer-2021.vol3.01.01>
- Parisi, S., Dean, V., Pathak, D., & Gupta, A. (2021). Interesting Object, Curious Agent: Learning Task-Agnostic Exploration. *Advances in Neural Information Processing Systems*, 34, 20516–20530. <https://proceedings.neurips.cc/paper/2021/hash/abe8e03e3ac71c2ec3bfb0de042638d8-Abstract.html>
- Rochaety, E. (2009). *Sistem informasi manajemen pendidikan* (Cet. ke-4). Bumi Aksara.
- Rusman. (2016). *Model-Model Pembelajaran Mengembangkan Profesionalisme Guru*. Raja Grafindo Persada.
- Shi, W., Lai, J. H. K., Chau, C. K., Wong, P., & Edwards, D. (2021). Analytic evaluation of facilities performance from the user perspective: Case study on a badminton hall. *Facilities*, 39(13/14), 888–910. <https://doi.org/10.1108/F-10-2020-0119>
- Sudiami, D. (2019). Internalization of Social Value Based on Character Education Strengthening through Scouting Extracurricular Activities in Public Junior High School 1 Batang. *Journal of Educational Social Studies*, 8(1), 9. <https://doi.org/10.15294>
- Sugiyono. (2008). *Metode penelitian pendidikan: (Pendekatan kuantitatif, kualitatif dan R & D)*. Alfabeta.

- Sugiyono, S. (2021). The evaluation of facilities and infrastructure standards achievement of vocational high school in the Special Region of Yogyakarta. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 25(2), 207–217. <https://doi.org/10.21831/pep.v25i2.46002>
- Terry, G. R. (1977). *Principles of Management*. R. D. Irwin.
- Vieluf, S., & Göbel, K. (2019). Making intercultural learning in EFL lessons interesting – The role of teaching processes and individual learning prerequisites and their interactions. *Teaching and Teacher Education*, 79, 1–16. <https://doi.org/10.1016/j.tate.2018.11.019>
- Whitton, N. (2018). Playful learning: Tools, techniques, and tactics. *Research in Learning Technology*, 26. <https://doi.org/10.25304/rlt.v26.2035>
- Yu, J., & Jee, Y. (2021). Analysis of Online Classes in Physical Education during the COVID-19 Pandemic. *Education Sciences*, 11(1), 3. <https://doi.org/10.3390/educsci11010003>
- Zarkasyi, Z., Ritonga, A. A., & Nasution, W. N. (2020). Internalization of Islamic Religious Education Values in Scouting Extracurricular Activities in Forming Student Character in Public Middle School 2 Peunaron East Aceh. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(2), 838–848. <https://doi.org/10.33258/birci.v3i2.911>