Planning for the Implementation of Information and Communication Technology (ICT) Based Academic Supervision

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Abstract

The existence of the principal in educational institutions has a very important role in developing and leading educational institutions, because the principal is one of the keys to the success of quality educational institutions. This study reveals the Implementation of Information and Communication Technology (ICT) Based Academic Supervision at SMPN 1 Praya Barat. This research uses a qualitative approach with the type of case study. Data collection methods used include participatory observation, interviews, and documentation. Meanwhile, dependability and confirmation were carried out by supervisors as dependent auditors. The research findings indicate that the planning for the implementation of ICT-based academic supervision at SMPN 1 Praya Barat Daya was prepared at the beginning of the new school year by involving the vice principal in the curriculum field. The implementation of ICT-based academic supervision includes class visits, online, observations, visits between classes, individual techniques followed by meetings with teachers, group studies of teachers of similar subjects (MGMP) workshops, upgrading, discussions.

Keywords: Planning; Academic Supervision; Information and Communication Technology

Introduction

The development of education is currently experiencing very rapid progress, this cannot be separated from the influence of advances in information and communication technology (ICT) which requires very significant changes, especially regarding the management of education units so that national development in the field of education is expected to develop as expected (Budiman, 2017). Recognizing the strategic role of education, the Indonesian government always supports the idea of placing the education sector as a priority in national development.

As an educational institution system, schools must be managed properly so that the achievement of goals runs effectively and efficiently (Ryuzen, 2017). In order to prepare school management based on the use of Information and Communication Technology in education units which are expected to be able to apply eight education standards as an indicator of quality assurance in education units can run as expected (Fadillah et al., 2020). Good ICT-based management will certainly be able to contribute to the advancement of education and be able to apply, develop, disseminate, or enrich science, technology, art,
and strive for its use to improve the quality of education (Inspiration, 2021). Good management can be
done through the use of technology that is developing rapidly, so education is seen as a system in
improving the quality of human resources and competitiveness globally.

The implementation of academic supervision carried out by the principal is an inseparable part of
the management and professional abilities possessed by the principal as a manager in the education unit
so that the management is maximized and the quality assurance of education can be fulfilled (Dalawi et
al., 2018). Problems that arise along with the implementation of ICT-based Academic Supervision in the
world of education are factors in the mastery of Information and communication technology by teachers
and school principals, as we know teacher education is the driving force in the implementation of learning
and principals as managers and supervisors must be able or mastering ICT therefore mastery of ICT by
teachers and principals in order to increase their professionalism.

The use of ICT in supporting the academic supervision process is a form of task and ability that
must be possessed by the principal in carrying out his duties as a supervisor, he must pay attention to
human resources and manage them properly, in order to create quality education (Mukhtar, 2015). The
success of the school is largely determined by the success of the principal in managing the educators and
education personnel available at the school (Arjunaita et al., 2020). In this case, increasing productivity
and work performance can be done by improving the behavior of educators and education personnel in
schools through various concepts and techniques of personnel management. In human resource
management, the principal is the key to success in achieving quality education (Full Moon, 2016).
Principals are required to always try to foster and develop human resources in order to create quality
education. Academic supervision of coaching activities through the provision of technical assistance to
teachers in carrying out the learning process. Academic supervision can be carried out by school
principals, supervisors, and teachers who are assigned by the principal to carry out their duties as
supervisors (Ittihad, 2019). Academic supervision in principle to improve the quality of teachers.

Based on the results of a preliminary study by the researcher several times in August 2021 at
SMPN 1 Praya Barat Daya, Central Lombok, interviews with the principal, as well as several teachers,
coupled with documentation during a field survey, the results of the researcher's rough observations that
the Implementation of Information and Communication Technology-based Supervision at SMPN 1 Praya
Barat Daya is very good as well as utilization in administration and supervision carried out by school
principals who have utilized ICT-based Information and Communication Technology, as evidenced by
one of the existing SMPN in the Praya Barat Daya sub-district whose principal already has a certificate of
supervision training based on Information and Communication Technology from LPPKS which develops
the competence of the principal. schools in ICT-based management developed by SMPN 1 Praya Barat
Daya Central Lombok, but to improve the quality of academic supervision carried out by ICT-based
school principals to improve the quality of education (Eight National Education Standards), it is still
necessary to develop the existing potentials, one of which is the other is the training and guidance
provided by the school, especially SMPN 1 Praya Barat Daya.

In the implementation of the supervision of principals based on information and communication
technology by the school and development, so that educators and education staff will later become
professionals in carrying out their duties as educators. In the future, it could have an impact on the value
of accreditation for the better (increase).

Another researcher's observation, that the implementation of academic supervision carried out by
ICT-based school principals, has good development and is programmed when compared to junior high
schools in the Praya Barat Daya sub-district. Most of these schools have not implemented the principal's
academic supervision using ICT. So the researcher wants to continue with the identification of problems
in more depth regarding the Implementation of Information and Communication Technology-Based
Academic Supervision at SMPN 1 Praya Barat Daya. With the aim, the results of this research can later
be used as input, in order to better understand how the implementation of ICT-based Academic Supervision is carried out by school principals so that they can compete with other schools, which in the end the quality of education is good, according to the needs and expectations of the community. As for one way that must be taken to obtain ICT-based management, by carrying out training and guidance carried out by the school, especially SMPN 1 Praya Barat Daya, in the Implementation of Information and Communication Technology-Based Academic Supervision by the principal of the ICT-based administrative school by the schools and continuous and continuous development.

**Method**

This research was conducted at SMPN 1 Praya Barat Daya, which is located on Jl. Darek-Batujai, Southwest Praya District, Central Lombok Regency. In this study, researchers used a qualitative approach. The method used is a case study (Case study.) Case study method is research conducted on a case that has high specificity and uniqueness (Sugiyono, 2012). The procedure of this research is by analyzing various data from observations, interviews, documentation, and information obtained from informants, and reliable sources, obtained in the field.

In this study, the data sources will be the principal, vice principal, teachers, education staff. Primary Data, is data related to research variables taken by respondents from observations and interviews with research subjects. In this case the author will work closely with the principal as a planner, deputy principal, committee, teachers, education staff, as executor of supervision in schools. Secondary Data, is supporting data that is not obtained directly, but is obtained from the school library, and school documents related to planning, implementation, evaluation and the obstacles faced in the Implementation of Information and Communication Technology-based Academic Supervision in the academic supervision of school principals at SMPN 1 Praya Southwest Central Lombok.

The methods or techniques of data collection are observation, interviews, and documentation. The research data was obtained randomly in accordance with the procedures and data collection processes developed and applied by Huberman (1992), namely data reduction, data presentation, and conclusion drawing. In the process of checking the validity of the data in this research, several techniques are used to check the validity of the data, including the credibility test, transferability, dependability, and confirmability.

**Results and Discussion**

**Planning for ICT-based Academic Supervision at SMPN 1 Praya Barat Daya**

Basically, one of the principal's duties is to plan academic supervision so that the principal can do their job well, so the principal must have the competence to plan academic supervision programs based on Information and Communication Technology. Supervision is almost the same as supervision, but supervision is more about coaching (Rahman, 2021). Supervision is very necessary in educational institutions, there are two aspects, namely: (1) Academic Supervision, namely professional assistance to teachers in improving the quality of the learning process or guidance to enhance student learning outcomes. Academic supervision also has sections, namely: Class supervision and Clinical supervision, is a teacher; (2) Managerial supervision, namely supervising people who become managers or principals consisting of the development of educational staff and also measuring the performance of the principal. The targets of supervision are people and their activities.

In planning for academic supervision based on ICT, the principal of SMPN 1 praya southwest takes steps, namely making a ICT-based supervision plan, preparing a program plan, and discussing the program plan.
The interview with Subject 1 was conducted on Monday, April 18, 2022, at 10.00 WITA, where the interview was held in the Principal's room of SMPN 1 Praya Barat Daya. The purpose of the interview was to determine the extent of the planning carried out by the principal in implementing the ICT-based supervision program at SMPN 1 Praya Barat Daya.

"After conducting socialization to teachers regarding the implementation of ICT-based supervision, I as the principal and teachers made activity plans. Created ICT-based supervision plans, prepared program plans, and discussed program plans for the implementation of ICT-based academic supervision. For this reason, I plan to socialize to teachers because after all that the teacher's role program is very important, for that I tell my fellow teachers that we will form a small committee and plan core activities when the time will be carried out where the activities will be and we agreed to make a program with the waka of the curriculum, school operators to plan activities for the implementation of ICT-based academic supervision at SMPN 1 Praya Barat Daya (Letter Number 120.421.2/SMPN/2022 April 7, 2022)

Based on the explanation from subject 1 that subject 1 has made a plan, subject 1 has compiled: 1) Planning for ICT-based supervision 2) Developing program plans, 3) Discussing program plans for ICT-based academic supervision planning programs. In the academic supervision planning document carried out by the principal, it is directed at achieving standards on the teacher's ability to plan lessons, implement quality learning by utilizing ICT, and use various media and methods and learning models that involve students in learning potential. one of the principal's efforts to control an activity professionally in an educational organization so that it can run as it should,

The preparation of ICT-based academic supervision planning is also accompanied by the instruments that will be used during the implementation of supervision (Sudiana, 2019). With the principal as a supervisor, the principal can find out the teacher's competence regarding aspects of the implementation of learning that need to be fostered and improved. The components or aspects that will be supervised by the principal are the teacher can; (1) understanding of the Education Unit Level Curriculum which is devoted to syllabus development, formulation of basic competencies and indicators, preparation of lesson plans; (2) the use of several learning methods and models; (3) utilization of learning resources and ICT-based learning media; (4) the application of educational learning strategies; (5) the application of a scientific approach; and (6) assessment.

The target of the ICT-based principal's academic supervision is all junior subject teachers. In preparing the ICT-based academic supervision plan, the principal is also accompanied by an implementation schedule. Scheduling is done to find out which teacher will receive the first academic supervision and the time and order of the next. Supervision scheduling is useful for teachers to make preparations regarding learning preparation and the media to be used, so that at the time of implementation the teacher can carry out learning that can teach students so they are motivated to increase their knowledge (Hasan, 2019).

In the ICT-based principal's academic supervision planning document, the implementation will be evaluated on teachers who have been supervised to determine the development of teacher competence after receiving additional guidance and supervision. This is done so that the implementation of ICT-based academic supervision can provide benefits and improve the teaching profession. These benefits can be felt by students, the educational institution concerned and the community.

By conducting the preparation of the principal's ICT-based academic supervision, it is also accompanied by an assessment instrument or assessment guide. Several things that need to be considered by the supervisor are the suitability of the instrument, clarity of goals and objectives, methods and approaches planned. This was done to make it easier for school principals to carry out assessments on teachers who were carrying out their main task, namely classroom learning. The ICT-based academic supervision plan should have a basis so that its implementation is truly on target. The target is seen from
the substance of why supervision must be carried out, if the supervision target is seen from the object to whom ICT-based academic supervision must be carried out so that it has an impact on the development of teachers and other staff.

ICT-based academic supervision planning should have proper planning and have a basis so that in its implementation it is truly on target and involves all elements in the school because ICT-based academic supervision planning has benefits, namely as a guide in academic supervision, and to equalize the perception of all citizens schools about ICT-based academic supervision programs.

Planning is defined as an implementation guideline to determine a strategy for implementing activities in a systematic, effective, and efficient manner. Planning for the Implementation of ICT-Based Academic Supervision at SMPN 1 Praya Barat Daya has been made by the principal together with teachers and related parties. In the planning, the things discussed are when the activity is carried out, what is the purpose of the activity carried out.

According to Manulang, good planning contains six questions, namely: 1) What actions must be taken? 2) Why should the action be taken? 3) Where should the action be taken? 4) When should the action be carried out? 5) Who will do the action? and lastly 6) How do you do that action? Based on these questions, the planning must include the following: 1) an explanation of the details of the activities carried out; 2) explain why the activity must be carried out and why the specified goal must be achieved; 3) an explanation of the physical location of each activity that must be carried out so that the facilities needed to carry out the work are available; 4) an explanation of the start time of the work; 5) explanation of the officers who will do their work; 6) explanation of the technique of doing the work (Manulang, 2012).

Basically, one of the principal's duties is to plan academic supervision so that the principal can do their job well, so the principal must have the competence to plan academic supervision programs based on Information and Communication Technology. Supervision is almost the same as supervision, but supervision is more about coaching (Rahman, 2021). Supervision is very necessary in educational institutions, there are two aspects, namely: (1) Academic Supervision, namely professional assistance to teachers in improving the quality of the learning process or guidance to enhance student learning outcomes. Academic supervision also has sections, namely classroom supervision and clinical supervision; (2) Managerial supervision, namely supervising people who become managers or principals consisting of the development of educational staff and also measuring the performance of the principal. The targets of supervision are people and their activities. In planning for academic supervision based on ICT, the principal of SMPN 1 Praya Barat Daya takes the following steps: 1) Make a plan for ICT-based supervision; 2) Develop a program plan; 3) Discuss the Program Plan.

Based on the regulation of the Minister of National Education Number 12 of 2007, the supervisory competencies are personality, managerial supervision, academic supervision, educational evaluation, social development research. For Principals As supervisors, they must have competency standards, namely: (1) Guiding teachers in compiling the syllabus for each subject; (2) Guiding teachers in preparing learning process plans; (3) Guiding teachers in carrying out learning or guidance activities; (4) Guiding teachers in managing, maintaining, developing and using educational media and learning facilities for each subject; (5) motivate teachers to use information technology in learning each subject (Nurfatah & Rahmad, 2018).

In order to realize professional teachers, it is necessary to improve the quality of teachers. The way to improve the quality of teachers can be through several ways such as implementing the functions of development, coaching, compensation and supervisory functions. Supervision is supervision of academic activities in the form of teaching and learning processes, supervision of teachers in teaching, supervision of students learning and supervision of situations that cause it (Dalawi et al., 2018). Supervision in education is a service to the basic needs of teachers in order to be able to increase their potential so that...
they truly become professional human resources in schools on an ongoing basis (Sanglah, 2021). As for the implementation of supervision activities in schools, it is entirely the responsibility of the principal, because one of the principal duties of the principal is as a supervisor.

**Implementation of ICT-Based Academic Supervision at SMPN 1 Praya Barat Daya**

One of the most important tasks of the principal is to carry out supervision in the implementation of supervision, there are coaches and those who are fostered. While the supervisor and coach are called supervisors. Meanwhile, the teacher who is coached is called the supervisee. The main target of ICT-based academic supervision at SMPN 1 Praya Barat Daya is junior teachers who are expected to be more mastered and able to plan and implement learning activities.

As an educational institution with the state status of SMPN 1 Praya Barat Daya, under the auspices of the Central Lombok District Education Office, it has a very strategic role and function in producing students who have noble character and have insight to develop students' intelligence and provide an increase in the quality of education. researcher with several resource persons.

The interview with subject 1 was held on Tuesday, April 19, 2022, with excerpts from the interview with Mr. Asharudin:

"In the implementation of ICT-based academic supervision, after conducting socialization to teachers regarding the implementation of ICT-based supervision as school principals and teachers, teachers make activity plans. Make ICT-based supervision plans, prepare program plans, discuss program plans for ICT-based academic supervision. For this reason, I plan to socialize to teachers because after all that the teacher's role program is very important, for that I tell my fellow teachers that we will form a small committee and plan core activities when the time will be carried out where the activities will be and we agreed to make a program with the waka of the curriculum, school operators to plan activities for the implementation of ICT-based academic supervision at SMPN 1 Praya Barat Daya for teachers who are supervised on a scheduled basis so that the implementation of supervision runs effectively, and efficiently in carrying out the goals to be achieved. learning tools needed in ICT-based supervision such as lesson plans and learning media needed during the learning process. Activities carried out in a team, especially in an organization where in an organization there are leaders and those who lead. In order to achieve the vision and mission that has been mutually agreed upon” In addition, the teachers who are fostered can prepare to be able to complete the learning tools needed in ICT-based supervision such as lesson plans and learning media needed during the learning process. Activities carried out in a team, especially in an organization where in an organization there are leaders and those who lead. In order to achieve the vision and mission that has been mutually agreed upon” In addition, the teachers who are fostered can prepare to be able to complete the learning tools needed in ICT-based supervision such as lesson plans and learning media needed during the learning process. Activities carried out in a team, especially in an organization where in an organization there are leaders and those who lead. In order to achieve the vision and mission that has been mutually agreed upon”

Based on the results of the interview above that the implementation of ICT-based academic supervision has been carried out on March 14, 15, 16 and 18, 19, 20 April 2022. In carrying out the supervision of the principal as a supervisor here directly in class or class visits by using the Google class room face to face with a teacher in the technique of supervising the principal to conduct classroom visits and private meetings.

It can be concluded from Mr. Asharudin's explanation, and several interviewees have carried out ICT-based Academic Supervision at SMPN 1 Praya Barat Daya such as carrying out the teaching and learning process which is supervised by the principal according to a predetermined schedule.
Class Visits (Classroom Visits)

Classroom visits is an activity to observe the learning process in the classroom. Class visits aim to determine the competence of teachers during the learning process. During this visit, the supervisor can find out the strengths and weaknesses of the teacher in carrying out his main task of carrying out learning. Before visiting the class, the principal must first call the teacher who will be supervised. The principal discusses the following: the purpose of the class visit, reveals aspects that can improve and enhances the ability of teachers, uses assessment guidelines and supervision instruments and determines the time of class visits.

Learning, involving students and the learning process, how to use learning media, the suitability of using media and learning materials, variations in methods and mental reactions of students in the learning process and so on. Classroom visitation of the principal as a supervising officer can be carried out in several stages: the preparation stage for a supervisor to plan time, goals or assessment guidelines or assessment instruments. there is a supervisory observation when checking on the supervision instrument column on aspects of academic supervision assessment then the supervisor accumulates the teacher's achievement value during the learning process and determines whether the teacher is in the complete or incomplete category or meets the standard or not. For teachers who meet the standards are given awards, while for teachers who do not meet the standards follow up and determine the implementation time so that teachers can achieve the standards that have been determined or determined together. Individual is the implementation of guidance carried out by a supervisor with a teacher. In this technique there is a dialogue between the principal and the supervised teacher. This must be done by the principal, in fostering, guiding, and improving the quality of learning.

Implementation of ICT-based academic supervision carried out by the principal of SMPN 1 Praya Barat Daya with individual techniques including holding individual meetings with the teacher to be supervised. These activities are carried out by supervisors to help, repair and overcome teachers who experience obstacles in carrying out the teaching and learning process. Class visits are often carried out by the principal, especially in the morning the principal controls each class, as Daripudin as deputy head of the school for student affairs stated as follows: The following: "Class visits are often carried out by the principal every morning observing the teacher's room and classroom, if there is an empty class or no teacher, the principal fills it. If there is a teacher in the principal's class, just pass by.

The approach used by a teacher, including the method used by a teacher, then mastery of the material by a teacher then added by evaluating, in front there is a pre test and at the end there is a post test. Class visits carried out by the head of SMPN 1 Praya Barat Daya were carried out to collect the necessary data, which is a process to improve teacher weaknesses in the learning process in the classroom. Class visits were carried out to find solutions and teacher difficulties in carrying out classroom learning, in class visits the principal used an assessment guide or assessment instrument used to check list on the components or aspects being supervised.

Group Supervision Technique

The group supervision technique is a follow-up to the individual technique and is a supervision technique carried out to supervise two or more people. Teachers are collected at a certain time either at the school concerned or gathered outside the institution concerned. In this group's academic supervision technique there are several activities including meetings, group discussions.

a) Hold A Meeting

Holding a meeting is the implementation of group supervision to discuss activities in schools, especially the learning process and the teaching profession. At SMPN1 Praya Barat Daya, meetings are held at the beginning of the semester and at the end of the semester as stated by the principal as follows:
"We plan ICT-based supervision if it is related to teacher academic supervision, as a whole we meet once a month and if there are important activities or suddenly we hold meetings once a month. Our official meetings are held every month as a form of group supervision. At the beginning of the year, the meeting is not once or twice to tidy up the ranks. As the year approaches, we start planning activities with the Deputy Head, TU and the Committee.

b) Group Discussion

In academic supervision, the group can also hold meetings with teachers who teach similar subjects. During the meeting there was a dialogue that discussed how the method of delivering a material and learning media were suitable for the material. Between one teacher and another teacher have different experiences. So that brainstorming in applying methods and media in teaching certain materials. In this case, there are similarities in resolving weaknesses and shortcomings among teachers of similar subjects.

One of the most important tasks of the principal is to carry out supervision in the implementation of supervision, there are supervisors and those who are fostered. While the supervisor and coach are called supervisors. Meanwhile, the teacher who is coached is called the supervisee. The main target of ICT-based academic supervision at SMPN 1 Praya Barat Daya is junior teachers who are expected to have more control and be able to plan and implement learning.

As an educational institution with the status of a state SMPN 1 Praya Barat Daya, under the auspices of the Central Lombok District Education Office, it has a very strategic role and function in producing students who have noble character and have broad insight to develop students' intelligence and provide an increase in the quality of education and provide contributions. Positive on the progress of education, especially at SMPN 1 Praya Barat Daya, based on the regulation of the minister of National Education No. 12 of 2007, the supervisor's competencies are Personality, Managerial Supervision, Academic Supervision, Educational Evaluation, Social Development Research. For Principals as supervisors, they must have competency standards, namely: (1) Guiding teachers in compiling the syllabus for each subject; (2) Guiding teachers in preparing learning process plans (RPP); (3) Guiding teachers in carrying out learning or guidance activities; (4) Guiding teachers in managing, maintaining, developing and using educational media and learning facilities for each subject; (5) motivate teachers to use information technology in learning each subject (Somat 2014).

The role of information technology has become a facilitator for human activities, contributing greatly to fundamental changes in the structure, operations and management of organizations. According to Kadir (2003). Broadly speaking, information technology has the following roles:

a) Information technology replaces the role of humans, in this case information technology automates a task or process.

b) Technology strengthens the role of humans, namely by presenting information on a task or process.

c) Information technology plays a role as a restructuring of the human role. In this case, technology plays a role in making changes to a set of tasks or processes. According to Supriyanto (2005) the role of computers in the world of education is divided into three parts, namely tutors, tools and tutors. As a tutor, it means that the computer acts as a teacher through a computerized teaching approach. The use of computers as a learning tool is known as (Computer Based Education). As a tool, it means that the computer becomes a tool to facilitate the teaching and learning process such as the context of integrating computer teaching.

Computers are also used to process data in the learning process, such as processing student grade data, scheduling, scholarships and so on. As a tutee, it means that the computer acts as a tool to be taught, and can conduct questions and answers or dialogue with a computer which is commonly referred to as...
Computer Assist Instruction (CAI). Meanwhile, according to Sutarman (2009: 58) argues that information and communication technology has a very complex role, one of which is for everyday human aids.

In carrying out the supervision of the principal as a supervisor here directly in class or class visits by using a google class room dealing with a teacher in the technique of supervising the principal, conducting class visits (classroom visitation) and private meetings. It can be concluded that he has carried out ICT-based Academic Supervision at SMPN 1 Southwest Praya such as, Implementing the teaching and learning process which is supervised by the principal according to a predetermined schedule where the implementation process is quite good so far due to the implementation that has been scheduled and it is easy to carry out activities even though this ICT-based academic supervision is a new program implemented at SMPN 1 Praya Barat Daya.

**Conclusion**

Based on the results of the study, it can be concluded that the preparation of the principal's academic supervision plan is based on increasing teacher competence and profession which is an analysis of ICT-based academic supervision in the previous year. The principal determined that the implementation of ICT-based academic supervision was the main program used by the principal more often than direct academic supervision, because the ICT-based academic supervision program was being developed, especially in schools that had an IT capacity building program in facing the school digitalization program by the government. Central Lombok Regency and the Ministry of Education and Culture.

In carrying out the supervision of the principal as a supervisor here directly in class or class visits by using a Google class room dealing with a teacher in the technique of supervising the principal, conducting class visits (classroom visitations) and private meetings. It can be concluded that he has carried out ICT-based academic supervision at SMPN 1 Southwest Praya such as, Implementing the teaching and learning process which is supervised by the principal according to a predetermined schedule where the implementation process is quite good so far due to the implementation that has been scheduled and it is easy to carry out activities even though this ICT-based academic supervision is a new program implemented at SMPN 1 Praya Barat Daya.

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