ASHA PUBLISHING

Volume 1, Issue 2, 2024



JOURNAL OF EDUCATIONAL DEVELOPMENT AND LEARNING

E-ISSN: 3063-8844
Journal of Educational Development and Learning
https://journal.ashapublishing.co.id/index.php/jedal/index

Laboratory Management in the Office Management Automation Department at Makassar National Vocational School

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ABSTRACT

The laboratory plays an important role in education. The laboratory is a place for students to develop themselves, as well as a place to practice a competency. Therefore, laboratory management must be considered properly. A laboratory with good conditions will facilitate the achievement of effective and efficient learning objectives. This study aims to determine laboratory management and to determine the inhibiting and supporting factors for the management of the office management automation laboratory at Makassar National Vocational High School. This study uses a qualitative approach with data collection techniques, namely observation, interviews, and documentation. The results of the study indicate that: (1) the planning carried out includes planning the laboratory usage schedule, planning the procurement of equipment and supplies, and planning laboratory management personnel which is carried out at the beginning of each semester. However, the planning for the procurement of equipment has not been fully realized due to budget limitations. (2) the organization of the office management automation laboratory at Makassar National Vocational High School has not taken place according to what has been made. This is evidenced by the lack of availability of laboratory management personnel. (3) maintenance of the office management automation laboratory at Makassar National Vocational High School only carries out daily maintenance, for example sweeping and mopping the floor without any regular maintenance. Thus, the maintenance of the office management automation laboratory at Makassar National Vocational High School has not been carried out optimally. (4) Supervision of the office management automation laboratory at Makassar National Vocational High School is only carried out preventively, namely by carrying out prevention before errors and damage occur in the use of the laboratory by implementing regulations in the laboratory.

Keyword: laboratory, management, office, governance

INTRODUCTION

Education is one of the important aspects in the formation of human resources. Education is considered capable of instilling new abilities in each person, allowing them to learn new knowledge and skills, so as to acquire quality skills. Education is an effort to improve the quality of human resources to achieve national development goals. In Law Number 20 of 2003 Concerning the National Education System that education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, nation and state.

One of the formal educational institutions that provide a variety of skills is the School. Schools are formal educational institutions that provide the necessary basic knowledge, skills, and attitudes. Schools that offer targeted skill development are vocational high schools (SMK). Vocational schools are a type of secondary educational institution that provides vocational training in various vocational programs. The competencies and skills acquired in vocational secondary schools prepare students to work in business, industry, or as educators.

Volume 1, Issue 2, December 2024
DOI: https://doi.org/10.70188/9831qg80

The government through Vocational High Schools is intended to provide knowledge related to skills and organize various practices needed in the world of work. Thus, Vocational High Schools are expected to produce human resources who have skills, abilities, and are able to become professional workers. (Darwis et al., 2019; Sazwani et al., 2020; Wahyuni et al., 2019). Schools are formal educational institutions that provide important information, skills, and attitudes. Basically, humans cannot live without knowledge, but knowledge can be obtained through education. (Darwis et al., 2023; Niswaty & Arhas, 2019; Suprianto et al., 2022).

Schools are formal educational institutions that provide important information, skills, and attitudes. Basically, humans cannot live without knowledge, but knowledge can be obtained through education. Learning facilities and infrastructure are one of the sources of energy that are a benchmark for school quality and need to be continuously improved with the growth of science and technology which continues to become more sophisticated. (Darwis et al., 2024; Vidalakis et al., 2013). One of the important aspects of organizing learning and things that must be considered by educational institutions is learning facilities and infrastructure, learning facilities and infrastructure are very useful to support the implementation of the teaching and learning process both directly and indirectly in an institution in order to achieve learning goals. Laboratories for vocational high schools have an important role. The laboratory is a place for students to develop themselves, as well as a place to practice a competency. The facilities and infrastructure in the laboratory must of course be considered properly. Good facilities and infrastructure in good condition facilitate learning. If the learning process is carried out optimally, learning goals can be achieved more effectively and efficiently.

METHOD

This study uses a qualitative approach. Qualitative research is a research procedure based on post-positivism or enterpretive philosophy, used to study the natural state of objects, where researchers are key instruments, information collection methods are tried by triangulation (combination of observation, interviews, documentation), information obtained tends to be qualitative information, information analysis is inductive/qualitative, and qualitative research results can be in the form of discovering abilities and problems, uniqueness of objects, meaning according to events, processes and social interactions, certainty of the truth of information, construction of phenomena, and discovery of hypotheses". This research is a type of descriptive research, because the purpose of descriptive data is to describe, describe systematically, factually and accurately the facts stated by informants verbally and in writing or also from the behavior of informants. The focus description in this study focuses on the Management of the Office Management Automation Laboratory at SMK Nasional Makassar which consists of 4 (four) aspects of management, namely planning, organizing, maintenance, and supervision. In the study, there were 7 informants, namely 1 Deputy Head of Facilities and Infrastructure, 1 Deputy Principal for Curriculum, 1 Head of Laboratory, 2 Teachers, and 2 students using the interview method as the main data collection tool, so that data was obtained regarding the management of the office management automation laboratory. The data analysis techniques used were data reduction, data presentation, and drawing conclusions., (Miles, 1994).

RESULT AND DISCUSSION

This study uses a qualitative approach. Qualitative research is a research procedure based on post-positivism or enterpretive philosophy, used to study the natural state of objects,

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Planning

Good planning is based on the time required to achieve the goal, so it must be adjusted to the available resource possibilities. To achieve good planning, it is necessary to ensure that the terms and stages of the plan are implemented correctly and that the goals and objectives produced are in accordance with the conditions of the organization's resources. Based on the results of interviews conducted at SMK Nasional Makassar, it can be seen that laboratory management in the planning aspect is: Planning a laboratory usage schedule is very important to ensure the efficient and effective use of these resources. In short, planning a laboratory usage schedule is an important step in ensuring efficient, safe and effective laboratory use. By planning laboratory usage carefully, educational and research institutions can provide quality learning and research experiences while optimizing the use of available resources. Based on the results of the interview, it shows that the planning of the laboratory usage schedule at SMK Nasional Makassar is carried out at the beginning of each semester, then the use of the laboratory is adjusted to the previously made learning schedule. Furthermore, the party involved in planning the OTKP laboratory usage schedule is the vice principal of curriculum in accordance with his functions and duties who regulates the learning schedule. The laboratory is a place where various scientific experiments, research and practical activities are carried out. In an educational and research environment, the laboratory plays a very important role. Therefore, laboratory usage schedule planning is an important process in managing laboratory resources effectively and efficiently. Laboratory usage schedule planning is carried out so that laboratory usage has clear mapping and scheduling. So that laboratory usage runs well and there is no overlap between laboratory users.

The laboratory plan is developed at the beginning of each semester based on the department and teaching schedule of educators who want to use the laboratory. Based on the research that has been conducted, the OTKP laboratory usage plan at SMK Nasional Makassar is prepared at the beginning of each semester. In addition, the laboratory usage schedule is adjusted to the class learning schedule that has been set. Laboratory usage schedule planning is the result of an arrangement between the laboratory coordinator and the vice principal for curriculum.

Laboratory facility procurement planning is a systematic step that must be taken so that laboratory facility needs can be obtained effectively, efficiently, and in accordance with laboratory needs. In addition, it is important to involve related parties in the laboratory facility

Volume 1, Issue 2, December 2024
DOI: https://doi.org/10.70188/9831qg80

procurement planning process so that all meeting needs have been considered effectively. Based on the interview results, it can be concluded that the OTKP laboratory procurement procedure is carried out at the beginning of each new year or school year through collaboration between related subject teachers and the head of the laboratory, then proposed to the vice principal for facilities and infrastructure, then submitted to the principal for approval. The vice principal for facilities and infrastructure receives the equipment which is then submitted to the laboratory through the head of each laboratory. Then, the equipment or supplies that have been submitted to the laboratory will be placed according to their place. Planning the stages of providing practical tools in the laboratory is an important step in ensuring that the laboratory has the equipment needed to support practical and research activities. By planning the steps for providing practical equipment in the laboratory systematically, it can ensure that the laboratory has the equipment needed to support practical and research activities efficiently and effectively.

Planning the purchase of laboratory equipment based on research results. The process of planning the purchase of practical laboratory equipment is developed for each new school year. The head of the laboratory coordinates with the OTKP teacher who then submits it to the vice principal for facilities and infrastructure regarding the equipment needed, then submits it to the principal for approval. If accepted, it will be reported to the school treasurer who will determine the cost of purchasing the equipment. The purchase of laboratory practical equipment comes from the BOS fund. Furthermore, the process of receiving practical equipment is received by the vice principal for facilities and infrastructure and then submitted to each department by coordinating with the head of the laboratory. If the equipment has been received, it will be placed according to its respective places. Planning the determination of laboratory personnel is an important step in managing a laboratory. The laboratory manager then plays a role in ensuring the sustainability of operations and the quality of laboratory work. By planning well, it can certainly be ensured that the laboratory can be used efficiently and is always in good condition. The involvement of laboratory personnel can also monitor or supervise the condition of the laboratory. Based on the results of the interview, it was explained that the one who proposed the determination of laboratory personnel at SMK Nasional Makassar was the principal. In addition, in the OTKP laboratory itself there are still several officers whose duties are still concurrent. This will then affect the quality of the performance of the laboratory manager. The laboratory manager whose duties are concurrently the head of the department as well as the head of the laboratory and there are also technicians but are not specifically for the OTKP laboratory.

Determining laboratory personnel involves several factors that need to be considered to ensure that the selected person has the insight and skills needed to carry out laboratory work properly. Planning the determination of laboratory personnel is crucial in ensuring the efficiency, sustainability, and quality of laboratory work. Planning laboratory personnel who will manage the laboratory usually consists of the head of the laboratory, coordinator, technicians, and laboratory assistants.

Based on the results of the study, the planning for determining OTKP laboratory personnel at SMK Nasional Makassar was proposed by the principal. In addition, there are laboratory officers who have concurrent duties such as the head of the laboratory as well as being the head of the department and technicians who are not specifically for the OKTP laboratory. Overall, those responsible for the laboratory consist of the principal, vice principal for infrastructure, vice principal for curriculum, related teachers, and technicians who are also technicians for other departments.

Volume 1, Issue 2, December 2024
DOI: https://doi.org/10.70188/9831qg80

Organizing

Organization in the laboratory must be considered so that its responsibilities are clearly defined to support laboratory management activities. Organization is a step to determine laboratory managers who are each given responsibility in the form of an organizational structure. The organizational structure determines the duties and responsibilities of each member of the laboratory. By clearly defining roles and responsibilities, laboratory employees can work in an organized and efficient manner. Therefore, laboratory organization is an important foundation for the laboratory to work efficiently, safely, and innovatively in order to successfully achieve the goals that have been set.

Based on the interview results, it can be concluded that the OTKP laboratory has an organizational structure. The organizational structure of the laboratory at SMK Nasional Makassar is installed in the laboratory room. In addition, the organizational structure of the OTKP laboratory includes the principal, vice principal for facilities and infrastructure, vice principal for curriculum, technicians, and teachers who carry out practical activities in the laboratory.

Organization is a step to determine laboratory managers who are each given responsibility in the form of an organizational structure (Arhas, 2022; Jamaluddin et al., 2024; Nasrullah et al., 2023). Organization as part of the management, namely the organizational structure or composition, authority, and obligations of laboratory officers. According to Saefrudin ((2017) that "is the act of breaking down work into smaller tasks, assigning those tasks to individuals based on their talents, and allocating and coordinating resources to achieve organizational goals." Based on this theory, the organization of the OTKP laboratory at SMK Nasional Makassar has been carried out by creating a laboratory organizational structure. Based on the research results, the organizational structure of the OTKP laboratory is not in accordance with the theory, because there are no laboratory assistants in the laboratory organizational structure. The documentation results also show the same thing that the organizational structure only consists of the principal, vice principal for infrastructure, vice principal for curriculum, head of the laboratory, the relevant teacher, and technicians. In addition, this is reinforced by the results of observations which show the absence of laboratory assistants or in this case there are only technicians who are also technicians for other departments. Then, the head of the laboratory also doubles as the head of the department so that he has many responsibilities and tasks. Regarding this, it can be seen that the organization of laboratory management at SMK Nasional Makassar has had a division of tasks from each manager. It's just that the implementation of the organization of the OTKP laboratory at SMK Nasional Makassar has not run as it should. This is proven by the minimal availability of laboratory management staff.

Maintenance

Laboratory maintenance is carried out as an effort to ensure that laboratory equipment is always in good condition and ready for use. Equipment and supplies must always be monitored because they are the main support for learning activities in the laboratory. Laboratory maintenance is not just about looking at the condition of the laboratory, but maintenance can be carried out by carrying out daily maintenance or periodic maintenance. Therefore, the importance of maintaining equipment is a major focus in managing the laboratory itself. The results of the interview showed that laboratory managers, teachers, students and laboratory user technicians were all involved in laboratory maintenance. There is no special schedule for laboratory maintenance. The maintenance carried out is limited to checking the condition of the computer and cleaning the room. This means that in this maintenance, comprehensive maintenance has not been carried out on the equipment and

DOI: https://doi.org/10.70188/9831qg80

supplies in the laboratory. This is evidenced by the results of observations, namely the existence of two communication machines or intercoms that are no longer functioning due to damage. Maintenance is an activity carried out so that all equipment is always in good condition and ready to use. Maintenance in the laboratory is certainly to minimize damage to objects, equipment or equipment, so as to ensure the availability and readiness for application activities or laboratory use. According to Purmaningsih & Purbangkara (2022) that "school personnel have a sense of responsibility as owners and ensure that the items used, and guarantee good maintenance".

From the explanation, laboratory maintenance is carried out by the head of the laboratory by involving teachers, students, and technicians. In addition, Bafadal (2014) that in general, there are two types of maintenance: "daily maintenance, such as sweeping, mopping the floor, and cleaning glass doors and windows, which are carried out by designated staff and periodic maintenance, which is carried out at least once and must be carried out such as controlling the roof, walls and floors. If there is a leak, crack, or other damage that cannot be repaired by the responsible officer, it must be reported immediately to the management for immediate repair. For periodic maintenance, a maintenance card must be made". Based on this theory, it can be seen that the maintenance of the OTKP laboratory at SMK Nasional Makassar only carries out daily maintenance, for example sweeping and mopping the floor without any periodic maintenance. Thus, the maintenance of the OTKP laboratory at SMK Nasional Makassar has not been carried out optimally.

Supervision

To avoid potential deviations from the plans that have been made that can affect the goals to be achieved, supervision is carried out. This supervision is carried out as an examination to ensure that something unexpected does not happen as an effort to achieve the target. In addition, the supervision carried out is so that it is known the extent of the process or achievements that have been achieved. If a problem occurs, it can be immediately known and handled. Based on the results of the interview, it can be concluded that there are regulations on the use of laboratories installed in laboratory rooms and violations committed by laboratory users, in this case students bring food or drinks into the laboratory, among others. In addition, the procedures and objectives of supervision carried out are to make rules for the use of the laboratory and conduct direct supervision when the laboratory is used. The purpose of supervision itself is to prevent and correct the mistakes that occur.

Supervision is an effort to minimize the occurrence of irregularities in the laboratory. Manullang in Muthohar(2020) proposing two types of supervision, namely "Preventive supervision (prior supervision) is supervision of actions before they occur, preventing deviant behavior. The real manifestation of preventive monitoring is to develop a code of conduct for laboratory use. Repressive supervision is supervision of an action after it has been carried out. This supervision is focused on evaluation to improve the quality of the laboratory. Based on the results of the research that has been carried out and associated with the theory, it can be concluded that laboratory supervision at the Makassar National Vocational High School is only carried out preventively, namely preventing the use of the laboratory before it occurs by compiling a code of conduct for the use of the laboratory. However, repressive supervision has not been carried out optimally because there has been no special evaluation related to laboratory supervision.

CONCLUSION

Based on the results of the research, it can be concluded that the management of the OTKP laboratory at the Makassar National Vocational High School (SMK) includes aspects of

DOI: https://doi.org/10.70188/9831qg80

planning, organizing, maintaining, and supervising. Asperk planning has been done quite well. The aspect of organizing laboratories at SMK Nasional Makassar has not been effective. The maintenance aspect of the OTKP laboratory has not been carried out optimally. The aspect of supervision has not been carried out optimally. The factors that hinder the management of the OTKP laboratory at SMK Nasional Makassar are the lack of budget for the procurement of laboratory equipment and the lack of a special laboratory that has not been designated so that it has an impact on maintenance that is not optimal. Furthermore, the supporting factor for the management of the OTKP laboratory at SMK Nasional Makassar is the support and cooperation between all parties, both from the school and the foundation and continuing to carry out the teaching and learning process in the laboratory

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