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# Availability, Feasibility, and Implementation of Occupational Health and Safety Facilities in a Senior High School Chemistry Laboratory

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**Abstract**: The school laboratory is an essential facility for conducting practical activities safely and effectively; therefore, adequate Occupational Health and Safety (OHS) facilities are required. This study analyzed the availability, feasibility, and implementation of OHS equipment and materials in the chemistry laboratory of SMA Negeri 6 Tangerang Selatan, Indonesia. A descriptive design integrating qualitative and quantitative approaches was employed. Data were collected through observations, interviews, and documentation using expert-validated observation checklists and interview guides. Quantitative data were analyzed using percentage calculations, while qualitative data were analyzed following the Miles and Huberman model. The findings revealed that the availability of OHS facilities reached 65.2% (complete category), while their feasibility reached 56.5% (adequate category). Existing facilities included personal protective equipment, fire extinguishers, first aid kits, fume hoods, sinks, and ventilation systems. However, eyewash stations, emergency showers, and clearly designated evacuation routes were unavailable, and some PPE was damaged. Overall, OHS implementation remains suboptimal and requires continuous improvement through regular maintenance, supervision, and facility provision.

**Keywords:** Occupational Health and Safety (OHS); Chemistry Laboratory; Facility Availability; Facility Feasibility; Senior High School

***Abstrak**: Laboratorium sekolah merupakan fasilitas penting untuk melaksanakan kegiatan praktikum secara aman dan efektif sehingga ketersediaan fasilitas Keselamatan dan Kesehatan Kerja (K3) perlu dipastikan. Penelitian ini bertujuan untuk menganalisis ketersediaan, kelayakan, dan implementasi peralatan serta bahan K3 di laboratorium kimia SMA Negeri 6 Tangerang Selatan, Indonesia. Penelitian menggunakan desain deskriptif dengan pendekatan kualitatif dan kuantitatif. Data dikumpulkan melalui observasi, wawancara, dan dokumentasi menggunakan lembar observasi serta pedoman wawancara yang telah divalidasi melalui expert judgment. Data kuantitatif dianalisis menggunakan persentase, sedangkan data kualitatif dianalisis dengan model Miles dan Huberman. Hasil penelitian menunjukkan bahwa ketersediaan fasilitas K3 mencapai 65,2% (kategori lengkap), sedangkan tingkat kelayakannya mencapai 56,5% (kategori cukup layak). Fasilitas yang tersedia meliputi alat pelindung diri, alat pemadam api ringan, kotak P3K, lemari asam, wastafel, dan sistem ventilasi. Namun, stasiun pencuci mata, pancuran darurat, serta jalur evakuasi yang jelas belum tersedia, dan beberapa alat pelindung diri ditemukan dalam kondisi rusak. Secara keseluruhan, implementasi K3 di laboratorium masih belum optimal dan memerlukan perbaikan berkelanjutan melalui pemeliharaan, pengawasan, serta penyediaan fasilitas secara berkala.*

***Kata Kunci:** Keselamatan dan Kesehatan Kerja (K3); Laboratorium Kimia; Kelayakan Fasilitas; Keselamatan Laboratorium; Sekolah Menengah Atas*

## INTRODUCTION

The laboratory is a learning-support facility used to carry out scientific activities, such as experiments or hands-on practical work, directly at school. Practical activities not only help clarify

abstract concepts but also train students' science process skills and accustom them to applying correct working procedures. This is strongly supported by the findings of Putri et al. (2022), who showed that the implementation of the experimental method was able to significantly improve students' learning effectiveness and outcomes, from 51.56% to 64.04%. Through practical activities, students can also observe, test, and verify the theories they have learned in the classroom, making the learning process more active and meaningful. Regarding practical engagement, the study by Ismi and Ritonga (2023) confirmed that the experimental method provides students with direct experience, thereby improving their understanding of scientific concepts.

To support the implementation of practical work, a laboratory needs to be managed properly so that it can be used effectively and optimally. Proper laboratory management includes the availability of facilities, equipment, and materials, as well as the management of safety during practical activities. A laboratory with complete facilities will not function optimally if it is not supported by good management (Susanti et al., 2021). In chemistry learning, practical activities are closely related to the use of various laboratory equipment and chemicals that can pose a risk of work-related accidents if not used correctly. These risks may include injuries from broken equipment, exposure to hazardous substances, irritation, and even laboratory fires. Therefore, the aspect of Occupational Health and Safety (OHS) is important and needs to be considered in the management of school laboratories.

Theoretically, laboratory safety management is grounded in the Occupational Health and Safety Management System and the concept of the Hierarchy of Hazard Control. This theoretical framework arranges accident-prevention strategies sequentially, beginning with the elimination of hazard sources, followed by substitution, engineering controls, administrative controls, and finally personal protective measures (Cahyaningrum, 2020). Building on this foundation, the implementation of OHS in school laboratories is not only related to laboratory-use regulations as a form of administrative control, but is also supported by the availability of adequate safety facilities. These facilities include personal protective equipment, first aid kits, fire extinguishers, chemical labels, Material Safety Data Sheets (MSDS), and various other safety markings that function to minimize the risk of accidents during practical activities. The presence of adequate OHS facilities is one of the preventive efforts in creating a safety culture as well as a laboratory environment that is safe and supportive of safe practical work. Adequate standardization of OHS facilities is significantly correlated with a reduction in the rate of minor incidents or accidents in secondary-school science laboratories (Lestari et al., 2025; Rahmadani et al., 2025).

In practice, however, many school laboratories are still found to lack complete OHS equipment and materials, or these do not yet meet the required standards. Some safety facilities may be available at schools, but their condition is not adequate for use, they are not stored properly, or they cannot yet be used optimally for practical activities. This condition can increase the potential for work-related accidents in the laboratory and may affect the smoothness of the learning process during practical work (Wahyurianto & Fioriantika, 2022). Agustina and Oktavianus (2025) reported that 50% of the students surveyed had experienced a work-related accident in the laboratory due to the limited availability of facilities and a lack of understanding of OHS.

These problems indicate that the safety aspect of school laboratories still requires more serious attention. Nevertheless, previous studies have mostly focused on the availability and completeness of laboratory practicum tools and materials in general, whereas studies specifically addressing the availability and feasibility of OHS facilities in school laboratories remain very limited. This is where the novelty of the present study lies, namely evaluating OHS multidimensionally not merely as an audit of physical availability, but also by analyzing feasibility standards and identifying constraints in field-level management. This finding is consistent with the study by Alvarez Chávez et al. (2026), which showed that the good availability of safety facilities is not necessarily followed by the optimal application of safety practices. This occurs because the effectiveness of OHS implementation is also influenced by various obstacles and by the risk-management systems applied

within educational institutions an aspect that is highly important for supporting safe and effective practical activities, particularly in laboratories that use hazardous chemicals and equipment.

Based on this background, the present study aims to (1) describe the availability of OHS equipment and materials, (2) analyze their feasibility, and (3) identify the implementation of, and constraints in, OHS management in the chemistry laboratory of SMA Negeri 6 Tangerang Selatan.

## METHOD

### *Research Design and Location*

This study was conducted in the Chemistry Laboratory of SMA Negeri 6 Tangerang Selatan in May 2026. A descriptive research design was used, with the head of the school laboratory as the research subject. This descriptive study aimed to describe and present field conditions regarding the availability and feasibility of occupational health and safety (OHS) equipment and materials in the school laboratory.

### *Data Collection Techniques and Research Instruments*

Research data were obtained through observation, interviews, and documentation. The instruments used were an observation sheet (checklist) and an interview guide. Before being used in the study, both the observation sheet and the interview guide underwent a content-validity test through expert judgment by the supervising lecturer. This validation was carried out to ensure the conformity of the instrument indicators with the research objectives, the aspects of OHS facility availability and feasibility, and the laboratory safety standards used as references. The reliability (trustworthiness) of the data was strengthened through technique triangulation comparing the results of observation, interviews, and documentation so that the data obtained were more consistent, valid, and scientifically accountable. The observation indicators for the availability and feasibility of OHS equipment and materials were developed based on school-laboratory safety standards referring to Law No. 1 of 1970 concerning Occupational Safety, as well as laboratory OHS guidelines.

### *Data Analysis*

The data-analysis techniques used were qualitative and quantitative descriptive analysis. Qualitative data were obtained from interviews and documentation, while quantitative data were obtained from the observation of OHS practicum equipment and materials. The qualitative data obtained from interviews and documentation were analyzed using the Miles and Huberman model, which includes data reduction, data display, and conclusion drawing/verification. This analysis was carried out to identify the implementation of OHS, the condition of safety facilities, and the various constraints faced in laboratory management. The results of observation, interviews, and documentation were then compared through technique triangulation to obtain more valid and comprehensive data.

Table 1. Interpretation Criteria for the Percentage Formula

| Percentage of Facility Compliance Obtained | Availability Assessment Criteria | Feasibility Assessment Criteria |
|---|---|---|
| 0% – 24% | Very incomplete | Very inadequate |
| 25% – 49% | Incomplete | Inadequate |
| 50% – 74% | Complete | Adequate |
| 75% – 100% | Very complete | Very adequate |

The data obtained from observation were analyzed based on two aspects: availability and feasibility. The availability of OHS equipment and materials was calculated using a percentage-of-achievement formula, comparing the number of tools and materials available with the number that should be available. The resulting percentage was then interpreted according to the categories shown in Table 1. The feasibility of OHS equipment and materials, meanwhile, was assessed using

a four-point rating scale: a score of 4 (very adequate), 3 (adequate), 2 (less adequate), and 1 (inadequate). A rating scale is a measurement scale in which raw numerical data are interpreted in quantitative terms; the most important aspect of using a rating scale is the ability to interpret each number assigned to the alternative responses for every instrument item (Sugiyono, 2006). The score obtained for each indicator was then averaged and interpreted according to the feasibility categories presented in Table 1.

## RESULT AND DISCUSSION

### *Availability of OHS Equipment and Materials*

The availability of Occupational Health and Safety (OHS) equipment and materials refers to the presence of facilities, infrastructure, and safety equipment used to support practical activities so that they can run safely and minimize the risk of work-related accidents in the laboratory. The availability of OHS facilities includes personal protective equipment (PPE), emergency-response equipment, safety information media, and other supporting facilities that function to protect laboratory users from various potential hazards during practical activities (Hasibuan et al., 2020). The availability of adequate OHS facilities is one of the important factors in creating a laboratory environment that is safe, comfortable, and supportive of a safety-work culture (Sari et al., 2023).

Based on observations conducted in the Chemistry Laboratory of SMA Negeri 6 Tangerang Selatan, it was found that several types of OHS equipment in the laboratory were already available and in accordance with the OHS guidelines based on Law No. 1 of 1970 concerning Occupational Safety. Although these facilities have not yet fully met the laboratory's standard requirements, the observations covered various OHS components. In addition to observation, this study was also supported by interviews and documentation to obtain information related to the management of OHS facilities in the laboratory. The presence of these OHS facilities is very important because a laboratory is a workplace with various potential hazards, so adequate safety facilities are needed to minimize the risk of work-related accidents (Cahyaningrum, 2020). The observational data on the availability of OHS equipment and materials are presented in Table 2 and Figure 1.

**Table 2. Observation Results on the Availability of OHS Equipment and Materials**

| No. | Item Observed | Available | Not Avail. | Qty. | Condition Notes |
|---|---|---|---|---|---|
| 1. | Laboratory coat | ✓ | – | 35 | Some units are not well maintained |
| 2. | Safety goggles | ✓ | – | 35 | Some are damaged |
| 3. | Mask | ✓ | – | 35 | Some are damaged |
| 4. | Gloves (latex/nitrile/asbestos) | ✓ | – | 35 | Some are damaged |
| 5. | Closed-toe shoes / rubber boots | ✓ | – | 35 | Some are damaged |
| 6. | Fire extinguisher (APAR) | ✓ | – | 1 | Only one unit available |
| 7. | First aid kit and its contents | ✓ | – | 1 | Contents incomplete |
| 8. | Eyewash station | – | ✓ | – | – |
| 9. | Fire blanket | – | ✓ | – | – |
| 10. | Emergency evacuation stretcher | – | ✓ | – | Available, but stored in the school health unit (UKS) |
| 11. | Emergency shower (if any) | – | ✓ | – | – |
| 12. | Sand / soil (for chemical spills) | – | ✓ | – | – |
| 13. | Cloth / sponge / absorbent material | ✓ | – | 3 | Still usable, despite stains that cannot be removed |

| No. | Item Observed | Available | Not Avail. | Qty. | Condition Notes |
|---|---|---|---|---|---|
| 14. | Designated sharps waste bin | – | ✓ | – | – |
| 15. | Designated chemical / biological waste bin | – | ✓ | – | – |
| 16. | Neutralizing agent | ✓ | – | 1 | Only one bottle of distilled water |
| 17. | Safety poster / SOP | ✓ | – | 1 | Good condition |
| 18. | Material Safety Data Sheet (MSDS) | – | ✓ | – | – |
| 19. | Hazard labels/symbols on chemical bottles | ✓ | – | 9 | Some bottles carry hazard labels/symbols; others show only the chemical name |
| 20. | Evacuation route & emergency exit | – | ✓ | – | – |
| 21. | Sink and handwashing soap | ✓ | – | 6 | – |
| 22. | Fume hood | ✓ | – | 2 | – |
| 23. | Ventilation / exhaust fan | ✓ | – | 2 | – |

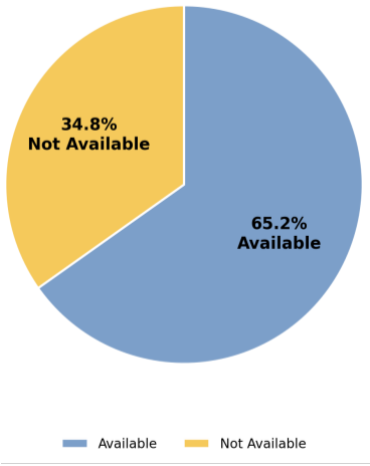


**Figure 1. Availability of OHS Equipment and Materials**

The observation results in Table 2 show that the laboratory of SMA Negeri 6 Tangerang Selatan already has several OHS tools and materials used to support practical activities. Available facilities include laboratory coats, safety goggles, masks, gloves, closed-toe shoes, fire extinguishers, first aid kits, sinks, fume hoods, ventilation, and safety-procedure (SOP) posters. The availability of these items indicates the laboratory's effort to minimize the risk of work-related accidents during practical activities. According to Citerawati et al. (2023), good OHS knowledge and implementation in the laboratory will create a safe and conducive laboratory atmosphere.

Based on the observational data presented in Figure 1, the level of availability of OHS equipment and materials in the laboratory reached 65.2%, while the remaining 34.8% of facilities were not yet available. This percentage indicates that the laboratory already has most of the basic safety facilities that support the implementation of practical work. From the perspective of science education, OHS in the laboratory functions not only as an accident-prevention effort but is also an important part of the science-learning process. The laboratory is a facility through which students develop science process skills, such as observation, experimentation, data analysis, and drawing conclusions based on the scientific method. The availability of adequate OHS facilities creates a safe and conducive learning environment so that practical activities can run optimally (Mahendra, 2025). In addition, the implementation of OHS through the use of personal protective equipment,

compliance with SOPs, and awareness of potential hazards also plays a role in shaping students' scientific attitudes, such as discipline, responsibility, accuracy, and caution. OHS implementation therefore has a strategic role in supporting the development of science process skills as well as the formation of students' scientific character.

Although most facilities are already available, the observation results show that several important facilities remain unavailable, such as an eyewash station, an emergency shower, an evacuation route, a Material Safety Data Sheet (MSDS), and a designated chemical-waste bin. The absence of these facilities indicates that the laboratory's safety system has not yet fully met the ideal safety standards. Based on a risk-priority analysis, the absence of an eyewash station and an evacuation route is the top priority, given the high level of risk to the safety of laboratory users, particularly in situations involving chemical exposure or fire. In addition, the partially damaged condition of PPE, the limited number of fire extinguishers, and the presence of expired chemicals also fall into the high-priority category. According to Normawati et al. (2024), hazard identification and risk prioritization are important steps in OHS implementation so that control measures can be carried out effectively. Therefore, the procurement of emergency facilities, routine maintenance, and periodic monitoring need to be undertaken to improve the quality of laboratory safety and to support safer, more optimal science learning.

### *Feasibility of OHS Equipment and Materials*

The implementation of OHS in the laboratory is determined not only by the availability of safety facilities but also by the feasibility of the available tools and materials. Available OHS equipment and materials need to meet criteria of function, physical condition, completeness, and readiness of use in order to provide effective protection during practical activities. According to Lestari et al. (2025), the feasibility assessment of laboratory facilities is carried out by comparing the condition of the available facilities and infrastructure with established standards. Evaluating the feasibility of OHS equipment and materials is therefore important for determining the laboratory's level of readiness in supporting the safety of its users.

The feasibility assessment in this study was carried out on all OHS equipment and materials available in the Chemistry Laboratory of SMA Negeri 6 Tangerang Selatan. The assessment was based on the physical condition, function, completeness, cleanliness, and appropriateness of use of each safety facility. A thorough assessment of the condition and function of safety facilities is necessary because every available OHS facility must be able to support risk-control and accident-prevention efforts within the educational laboratory environment (Normawati et al., 2024). The observation results on the feasibility of OHS equipment and materials are presented in Table 3.

**Table 3. Observation Results on the Feasibility of OHS Equipment and Materials**

| No. | Item Observed | Score | Category | Remarks |
|---|---|---|---|---|
| 1. | Laboratory coat | 3 | Adequate | Some units are damaged |
| 2. | Safety goggles | 2 | Less adequate | Some are damaged |
| 3. | Mask | 2 | Less adequate | Some are damaged |
| 4. | Gloves (latex/nitrile/asbestos) | 2 | Less adequate | Some are damaged |
| 5. | Closed-toe shoes / rubber boots | 2 | Less adequate | Some are damaged |
| 6. | Fire extinguisher (APAR) | 3 | Adequate | Good condition |
| 7. | First aid kit and its contents | 2 | Less adequate | Contents incomplete |
| 8. | Eyewash station | – | – | – |
| 9. | Fire blanket | – | – | – |
| 10. | Emergency evacuation stretcher | – | – | Only available in the school health unit (UKS) |
| 11. | Emergency shower (if any) | – | – | – |

| No. | Item Observed | Score | Category | Remarks |
|---|---|---|---|---|
| 12. | Sand / soil (for chemical spills) | – | – | – |
| 13. | Cloth / sponge / absorbent material | 3 | Adequate | Still usable — no tears or holes, although stains that cannot be removed are visible |
| 14. | Designated sharps waste bin | – | – | – |
| 15. | Designated chemical / biological waste bin | – | – | – |
| 16. | Neutralizing agent | – | – | – |
| 17. | Safety poster / SOP | 3 | Adequate | Only the working-procedure SOP; placed in an easily visible location |
| 18. | Material Safety Data Sheet (MSDS) | – | – | – |
| 19. | Hazard labels/symbols on chemical bottles | 3 | Adequate | Some bottles carry hazard labels/symbols; others show only the chemical name |
| 20. | Evacuation route & emergency exit | – | – | – |
| 21. | Sink and handwashing soap | 3 | Adequate | Soap is provided at every sink |
| 22. | Fume hood | 2 | Less adequate | Still contains expired materials and is poorly maintained |
| 23. | Ventilation / exhaust fan | 2 | Less adequate | Cleanliness poorly maintained; appears dirty |

Based on the feasibility assessment in Table 3, several OHS tools and materials in the laboratory of SMA Negeri 6 Tangerang Selatan are already in the adequate category, such as laboratory coats, fire extinguishers, sinks, safety-procedure posters, and absorbent cloths. However, several facilities were still found to be in the less-adequate category particularly safety goggles, masks, gloves, closed-toe shoes, fume hoods, and laboratory ventilation due to damage or insufficient maintenance. According to Fauziah et al. (2025), OHS implementation in the laboratory is related not only to the presence of safety facilities but also to the readiness of those facilities, the use of PPE, and the control of potential hazards to minimize the risk of work-related accidents during practical activities. This is further reinforced by Wardhana et al. (2025), who stated that OHS implementation is an important component in creating a safe and healthy working environment. Safe and healthy working conditions generate broad positive impacts, both for the individuals involved such as staff, employees, teachers, and students and for the institution and the smoothness of its work processes.

### *Level of Availability and Feasibility of OHS Equipment and Materials*

The results show that the level of availability of OHS facilities (65.2%) is higher than their level of feasibility (56.5%), a difference of 8.7%. This indicates that the presence of safety facilities does not yet fully reflect conditions that are adequate for use: some facilities are indeed available, but damage, incompleteness, and insufficient maintenance were found in several of them, pointing to a gap between quantity and quality. This finding is consistent with the study by Sari et al. (2023), which reported that many senior-high-school laboratories have a sufficient quantity of PPE but fail

to maintain it properly. At SMA Negeri 6 Tangerang Selatan, of the five types of PPE available, the average feasibility score was only 2.2 (less adequate) because of damage to the safety goggles, masks, and gloves. This condition is further compounded by the unavailability of critical emergency facilities such as an eyewash station and an emergency shower, which should constitute a minimum standard for chemistry laboratories (Regulation of the Minister of Education and Culture No. 45/2015 concerning Facility and Infrastructure Standards). Thus, although availability is sufficient, this laboratory cannot yet be categorized as safe according to applicable OHS standards.

**Table 4. Percentage of Availability and Feasibility of OHS Equipment and Materials in the School Laboratory of SMA Negeri 6 Tangerang Selatan**

| Aspect | Percentage | Remarks |
|---|---|---|
| Availability of OHS Equipment and Materials | 65.2% | Complete |
| Feasibility of OHS Equipment and Materials | 56.5% | Adequate |

According to Mutiah (2020), the implementation of occupational health and safety in the laboratory must be supported by adequate facility readiness so that potential hazards and work risks can be optimally controlled. Radista (2020) likewise stated that laboratory safety facilities that do not fully meet established standards can increase the likelihood of work-related accidents if not accompanied by good supervision and management. The results of this study thus indicate that the laboratory has made efforts to implement OHS, but that implementation still tends to focus on the provision of basic facilities and has not yet fully addressed comprehensive laboratory safety standards. Routine evaluation and maintenance of OHS facilities are therefore needed so that the laboratory's protective and safety functions can operate more optimally.

### *Implementation of OHS and Management of Safety Facilities in the Laboratory*

The interview with the Head of the Chemistry Laboratory of SMA Negeri 6 Tangerang Selatan indicates that the management of OHS facilities in the laboratory still faces various obstacles, particularly in the aspects of maintenance, supervision, and procurement of safety facilities. Although the procurement of personal protective equipment (PPE) has been planned since the beginning of the new academic year, several safety facilities are not yet fully available in accordance with the laboratory's needs. The head of the laboratory explained that the provision of PPE has been adjusted to the number of students using the laboratory, as conveyed in the following interview excerpt:

> *"Equipment and materials are usually provided at the beginning of each new academic year. As for the laboratory coats, these were already available beforehand, and each laboratory has 35 units of PPE, with the quantity adjusted to the number of students."*

The interview results also revealed that the maintenance of OHS facilities still faces various obstacles. The main obstacles identified were the limited number of laboratory technicians and the absence of a dedicated budget for maintaining several safety facilities. This condition has prevented the supervision of laboratory tools and materials from being carried out optimally; as a consequence, some equipment was found to be damaged, and some materials had passed their expiration date because of insufficient regular monitoring:

> *"Because the laboratory had just finished being renovated and we felt short-staffed in terms of laboratory technicians, some materials expired due to insufficient monitoring."*

This finding indicates that the availability of laboratory facilities needs to be balanced with a sound maintenance system so that their protective function remains optimal during practical activities. According to Heriawita (2025), the management of equipment and material

maintenance is an important factor in supporting the effectiveness of learning and occupational safety; suboptimal management can cause equipment damage, inefficient use of materials, and an increased risk of accidents in the laboratory.

In addition to the maintenance factor, the interview results show that the OHS facility monitoring system does not yet have a fixed schedule. The head of the laboratory stated that facility inspections are planned to be carried out periodically; however, their implementation still depends on the conditions and policies of laboratory management. This condition has the potential to leave facility damage unidentified for extended periods, thereby reducing the effectiveness of OHS implementation in the laboratory, as expressed below:

*"What I would like is for it to be done every three months, or at most once every half-semester."*

This indicates that the monitoring of OHS facilities still needs to be improved so that all safety facilities can function optimally in supporting practical activities. This finding is in line with Parida et al. (2025), who found that suboptimal supervision and maintenance of laboratory facilities is one of the factors contributing to the low effectiveness of OHS implementation in the school environment.

Another finding obtained from the interviews concerns the unavailability of several emergency safety facilities for handling work-related accidents. Facilities such as an eyewash station and an evacuation route are not yet available in the laboratory:

*"In my opinion, the facilities are still lacking, because there are indeed still many things that are not yet available."*

These interview results indicate that the availability of emergency safety facilities in the laboratory remains inadequate. This condition can hinder the initial handling of accidents, fires, or exposure to hazardous substances during practical activities. The absence of an eyewash station has the potential to increase the risk of eye injury from chemical splashes, while the lack of a clear evacuation route can complicate the evacuation process in the event of an emergency. This is consistent with the view of Salamena (2024), who stated that the availability of adequate occupational-safety facilities can help reduce the risk of accidents and improve the safety of laboratory users.

In terms of occupational-safety dissemination, the interview results show that the delivery of safety SOPs is still carried out through the subject teachers who conduct the practical sessions. The head of the laboratory explained:

*"The laboratory staff only provide education to the subject teachers; beyond that, the subject teachers are asked to take responsibility for the SOP."*

Thus, the delivery of safety information to students depends on each subject teacher. This system has the potential to cause uneven understanding of safety procedures among students if it is not accompanied by regular supervision and evaluation.

Although this study has provided an overview of the availability, feasibility, and implementation of OHS in the school laboratory, several limitations need to be noted. This study was conducted in only one school laboratory, with the head of the laboratory as the main informant, so the results obtained do not yet fully represent the general condition of OHS implementation in school laboratories. In addition, this study did not involve teachers or students as respondents, so the information obtained remains limited to the perspective of laboratory management. Future research is therefore recommended to involve more respondents and a more diverse range of research locations in order to obtain a more comprehensive picture of OHS implementation.

## CONCLUSION

Based on the research results, the level of availability of Occupational Health and Safety (OHS) equipment and materials in the Chemistry Laboratory of SMA Negeri 6 Tangerang Selatan reached 65.2%, categorized as complete, while the level of feasibility reached 56.5%, categorized as adequate. These results indicate that most OHS facilities are already available and able to support practical activities, although several facilities are not yet available or do not yet meet feasibility standards. OHS implementation in the laboratory has been carried out through the provision of safety facilities, the application of safety-work procedures, and the dissemination of practicum SOPs to teachers and students. Nevertheless, several obstacles remain, such as the limited number of laboratory technicians, the suboptimal maintenance of OHS facilities, and an SOP-dissemination system that still depends on subject teachers. Continuous improvement in the management, maintenance, and supervision of OHS facilities is therefore needed to support the creation of a laboratory environment that is safe and compliant with occupational-safety standards.

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