



Effective Communication Model in the Practice of Implementing Occupational Health and Safety Management System through Social Constructivism Approach

Oce Ridwanudin, P. Harisandi, R. Indriarti & Neti Budiwati

Universitas Pendidikan Indonesia

*Correspondence: E-mail: oceridwanudin@upi.edu

ABSTRACT

: This research aims to design an effective communication model related to the implementation of the Occupational Health and Safety Management System (OHSMS) through a social constructivism approach at PT Unilever Indonesia, Tbk., Cikarang Factory. A descriptive survey was used in this research by distributing closed questionnaires, with purposive sampling. The results of data collection were processed using SPSS 27 software. The research results indicated that the company's OHSMS socialization through the Safety Manager was still not optimal. For this reason, in order to improve the quality of communication and employee understanding regarding the implementation of OHSMS in companies, researchers designed an effective communication model using a social constructivism approach, which includes five stages, namely: 1) communication evaluation stage; 2) exploration stage; 3) concept and skills development stage; 4) stage of applying concepts and skills; and 5) reflection stage.

ARTICLE INFO

Article History:

Submitted/Received 08 Jul 2024

First Revised 20 Jul 2024

Accepted 20 August 2024

First Available online 1 September 2024

Publication Date 06 September 2024

Keywords:

Communication, Occupational Health and Safety Management System (OHSMS), Social Constructivism

1. INTRODUCTION

The implementation of Occupational Safety and Health (OHS) is a crucial aspect of the work environment that is often overlooked yet has a significant impact on the well-being of workers and the productivity of the company. The implementation of an effective Occupational Health and Safety Management System (OHSMS) within a company is essential due to the high-risk nature of work in industries such as manufacturing, construction, etc., where ignoring safety regulations can lead to accidents, injuries, and decreased economic efficiency (Nezhnikova, E. V., & Aksenova, A. A., 2014). Overall, by implementing SMK3, companies are expected to achieve the goal of zero accident to reduce the number of work accidents, because every individual in the workplace has the right to be guaranteed safety as stated in Law Number 1 Year 1970 concerning Occupational Safety.

Despite OSH protection efforts in many countries, the number of occupational accidents and occupational diseases remains high. Data from various international institutions, such as the International Labour Organization (ILO) and the World Health Organization (WHO), show that there are millions of workers who suffer serious injuries or even lose their lives every year due to work accidents or exposure to hazardous materials in the workplace. As in 2018, the ILO reported that there are 2.78 million workers who die every year worldwide due to occupational accidents and occupational diseases (Natalia et al., 2022).

To effectively implement the Occupational Health and Safety Management System (OHSMS), employees need to have an adequate understanding of the urgency and benefits of implementing OHS in the workplace (Fardinal, F., Leni, D., & Adril, E., 2022); Linda, N., 2023; Saraswati, R. A., & Putra, W. D., 2023). This understanding will form a solid foundation for safe and responsible behavior in the work environment. When employees understand the importance of OHS, they are more likely to comply with safety procedures, use personal protective equipment properly, report potentially hazardous conditions or behaviors, become more aware of possible risks, and understand that OHS actions are not only for their own protection, but also for the protection of colleagues and the sustainability of the company's operations (Khusna, K., Muhsyi, A., & Saádah, N. 2023; Linda, N., 2023; Prastiyo, C. A., & Tejamaya, M., 2023; Wijaya, V., & Waty, M., 2023). Thus, a strong understanding of the importance of OHS is a crucial foundation in creating a safe, healthy and productive work environment (Saraswati, R. A., & Putra, W. D., 2023).

To deepen employees' understanding of the OHS policy in the organization, a process is needed to effectively translate, disseminate, and or communicate the policy from the company to all employees at every level of the organization (Fenwick and Edwards 2010; Schmidt, O. S., 2023). Through clear and open communication, companies can appropriately convey information about OHS policies to employees, including objectives, procedures and expectations regarding OHS practices to be implemented (Pagoray, G. L., 2022; Silaban, et al., 2022). In addition, open communication creates opportunities for employees to ask questions, provide feedback, and share experiences related to OHS, which can increase their awareness and involvement in maintaining a safe and healthy work environment (Way, D. (2022; Asiedu, M. A., & Doe, J. K., 2023). As such, the need for effective communication of the

company's OHS policy to employees not only helps ensure compliance with OHS standards, but also promotes a strong safety culture in the workplace.

The forms of communication that can be carried out by the company to convey policies related to OSH include written communication in the form of Standard Operating Procedures (SPO) and posters in the workplace, oral communication such as socialization activities, and or in the form of education and training (Trench, B., & Miller, S., 2012). Company activities such as socialization and training on OHS play a key role in helping employees understand the urgency and benefits of OHS in the workplace (Klein, H. J., Fan, J., & Preacher, K. J., 2006; Zainagalina, L. Z., & Bulyukova, F. Z., 2020). Through structured and thorough training, employees are introduced to various aspects of OHS, including potential risks in the workplace, how to identify hazards, and steps that can be taken to prevent workplace accidents or injuries. Training will also provide an understanding of the importance of OHS in protecting themselves, coworkers, and the continuity of company operations. Thus, through proper OHS training and socialization, employees can gain a deeper understanding of the urgency and benefits of OHS, which in turn will help them adopt safe behaviors and adhere to OHS procedures more consistently.

In this case, the social constructivism approach is one approach that can be used by companies to communicate effectively and easily understood regarding the implementation of the OHS Management System. This approach is an approach in sociology and communication that discusses knowledge and understanding that is jointly developed by individuals, the roots of individual knowledge are found from employees' interactions with the environment and others before their knowledge is internalized (D., Muniyappan., P., Sivakumar., 2018).

Social constructivism is also known as the dominant pedagogical theory that emphasizes reflective thinking, problem solving, and collaborative learning (Mishra, N. R., 2023). This is in line with Von Glasersfeld's research (1995) which states that knowledge will always be formed by the definition of constructivism actively and creatively. In 1997, he also emphasized that in constructivism students are active in constructing their own knowledge and that social interaction is very important for the knowledge construction process. This approach, emphasizes that learners act as the main actors involved in the learning process.

In the context of business management, the changing structure and design of organizations, as well as the tendency of organizations to assign tasks that are not related to core business activities, present new challenges and opportunities for employees to continue to learn and grow. (Harisandi & Purwanto 2023). This change also encourages HR management within the organization to focus more on meeting the intellectual and learning needs of the organization. For organizations, employees' collective knowledge can be used to cope with changes in a dynamic business environment. Sawchuk (2003) states that learning can be defined as a series of analysis about something to understand its actual condition and various possibilities. In this way, learning can be generated as new knowledge or solutions that can be applied. in a system. According to Engestrom (2001) in learning, the goals, abilities and views of each individual will be involved simultaneously. Socio-culturally, tangible activities allow individuals and/or groups to acquire new skills through social interaction and participation in collective activities. This statement supports Cascio's (1995) assertion that organizational learning processes mostly occur in daily work practices, and these social interactions help

employees develop their skills more than formal job training. In addition to Cascio, Billet (1995) concluded that employees' participation in authentic activities gives them the opportunity to understand the organization's goals, and improve their skills. Interactive and collaborative learning experiences allow employees to share information with others in the organization as a source of new knowledge. Thus, every employee can serve as a potential source and creator of new knowledge for the organization. Employees' knowledge and abilities should be encouraged to develop in organizational learning.

Therefore, this study aims to design an effective communication model related to SMK3 through a social constructivism approach at PT Unilever Indonesia, Tbk. Cikarang Factory.

2. METHOD

Descriptive research was used in this study using a survey of 53 employees of consumer goods companies purposively through a closed questionnaire. The questionnaire was adopted and developed from research (Pendidikan dan Perkantoran 2022) by using a Likert scale of 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Strongly Agree) and 5 (Strongly Agree) related to communication conditions and understanding of the Occupational Health and Safety Management System (SMK3) which was distributed online with the help of google form as a form of primary data in this study.

The results of the questionnaire were collected as a data source and processed using descriptive analysis techniques with the help of SPSS 27.

3. RESULTS AND DISCUSSION

Organizational Structure

PT Unilever Indonesia Tbk is one of the largest consumer goods companies in the world with a history of more than one hundred years. Unilever is renowned for its outstanding brands and the belief that the right business practices will lead to better performance. PT Unilever Indonesia Tbk has been a leading Fast Moving Consumer Goods company in the Indonesian market since its establishment in 1933. More than forty brands comprise Unilever Indonesia's two divisions: Nutrition and Ice Cream and Home and Personal Care. In 1982, Unilever Indonesia "went public". Its shares are listed and traded on the Indonesia Stock Exchange.

Nine Unilever Indonesia factories are located in Cikarang and Rungkut. The Indonesian Ulema Council (MUI) has certified that all nine factories are halal. Our vision is to be a global market leader in creating sustainable businesses that are purpose-led and future-fit.

'The Unilever Compass' is our business strategy. A strategy that will see Unilever continue to grow, but also sustainably and responsibly, this includes: improving the health of the planet, improving people's health, confidence and well-being, as well as, helping to create a more just and inclusive world.

Unilever is a company with brands and people who have a clear purpose: to make sustainable living commonplace. And we are determined to prove that our purpose-driven, future-proof business model delivers superior performance. Unilever Compass is our strategy to deliver consistent, competitive, profitable and responsible growth, and responsible.

Unilever's business will not grow rapidly without a healthy planet and society. So the company is very focused on employee safety through the implementation of the Occupational Safety and Health Management System carried out by the HSE (Health Safety & Environment) department which is under the Engineering division where in this department there are 6 employee personnel consisting of a Safety Manager and 2 Supervisors who each have different tasks, namely one Supervisor for ISO accreditation and one Supervisor for contractor affairs. Under the Supervisor there are 3 staff consisting of admin, inspector and document control, Figure 1. shows the organizational structure of PT Unilever Indonesia, Tbk. :

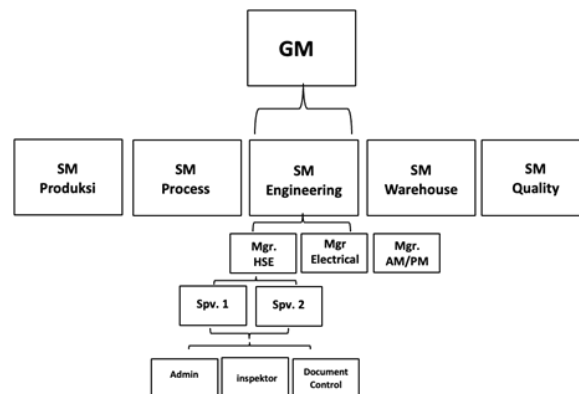


Figure 1. Organizational structure of PT Unilever Indonesia Tbk.

Respondent Identity

Information regarding the identity of respondents was obtained through data processing results from the questionnaire presented in Table 1.

Table 1. Respondent Identity

Respondent Identity		f	%
Gender	Male	43	81,1
	Female	10	18,9
Total		53	100
Age	18-25 Years	1	1,9
	26-30 Years	18	34
	31-35 Years	22	41,5
	36-40 Years	2	3,8
	>40 Years	10	18,9
	Total	53	100
Education	SMA	41	77,4
	D3		
	S1	10	18,9

	S2	2	3,8
	S3		
Total		53	100
Division	Production	37	69,8
	Quality	5	9,4
	Engineering	5	9,4
	Mixing & Process	4	7,5
	RMS & Substore	2	3,8
Total		53	100
Tittle	Operators	23	43,4
	Fitter	10	18,9
	Leader/Supervisor	10	18,9
	Manager	10	18,9
Total		53	100
Work Experience	1-5 Years	3	5,7
	6-10 Years	21	39,6
	11-15 Years	17	32,1
	16-20 Years	3	5,7
	>20 Years	9	17
Total		53	100
Works Hours	Shift	42	79,2
	Non-Shift	11	20,8
Total		53	100

Source: Data Processing Results 2024

Based on Table 1 above, it provides information that the majority of employees are dominated by men as many as 43 people. This is because in this division the work that is held is more technical so it is felt that men are more capable of doing technical work than women. In addition, in terms of age, most respondents are 31-35 years old. This indicates that some employees are senior employees. High school educational background dominates in filling out questionnaires in this study which means that high school education is considered capable enough to operate the entire production process at the company. This is in line with the majority of employees dominated in the production division as many as 37 employees and most have positions as operators, namely 23 employees.

In terms of work experience, 21 employees have 6-10 years of work experience while only 3 employees have 16-20 years of experience. In this company there are 2 types of working hours, namely shifts and non-shifts. As many as 42 employees have working hours as shifts and the remaining 11 employees have non-shift working hours. This indicates that the production process must always run for 24 hours a week.

Results of Descriptive Analysis of Corporate Communication

Based on the results of data processing regarding company communication presented in Table 2 (attached) provides information that the communication of the Safety Manager with his employees in conducting SMK3 socialization is considered good by employees and employees are also given freedom of communication by the Safety Manager. However, in delivering SMK3 socialization, the majority of employees prefer a formal communication style compared to non-formal. This is because formal communication is seen as more appropriate to use in communicating within the organization.

Communication of the Safety Manager in socialization related to SMK3 is considered to have an influence on employee understanding in the application of SMK3 at work. In addition, employees can communicate and express their opinions well flexibly or at any time to the Safety Manager in terms of implementing SMK3. Employee input or suggestions as one of the communications with the Safety Manager can be well received by the Safety Manager as a rare improvement in the future.

Table 2 explains that in terms of understanding, the majority of employees, namely 37 employees can understand SMK3 in accordance with applicable procedures and 36 employees are aware of the existence of SMK3 in the company. In addition, the average assessment of all communication questions is 3.28 with a standard deviation of 1.19. This means that the communication assessment can be categorized as agreeing with the current communication conditions in consumer goods companies. However, 16 employees do not understand SMK3 in accordance with established procedures and 17 employees do not know SMK3 in the company. This indicates that the socialization of SMK3 that has been carried out by the company through the Safety Manager is still not optimal.

Results of Descriptive Analysis of Corporate Communication Style

Table 3. Recapitulation of Company Communication Style

No	Communication related to SMK3	Communication Style	Total
1	Employee with Safety Manager	Formal	16
		Non-Formal	37
2	Safety department employees with other employees	Formal	34
		Non-Formal	19
3	In communicating with Safety Managers, prefer to use oral or written.	Oral	44
		Writing	9
4		Relax	0

	In communicating with the Safety Manager, prefer to be casual or serious.	Serious	53
5	If you choose relaxed communication with the Safety Manager, what does relaxed communication look like?	outdoors	11
		smoking	9
		drinking coffee & snacks	17
		until late at night	9
		listening to music	7
6	When deciding something at work, do you prefer to decide straight away or do you need time to think?	Directly	24
		It takes time	29
7	In communicating, whether to understand when to be formal or not	Understand	32
		Not understand	21

Source: Data Processing Results 2024

Table 3 explains that in terms of communication style, employees prefer to communicate with the Safety Manager non-formally when implementing SMK3, because with non-formal communication employees feel more familiar with the Safety Manager. While the communication of safety department employees with other employees prefers a formal communication style. The type of communication preferred in communicating related to SMK3 employees prefer oral and serious compared to written and casual, because oral and serious will be easier for employees to understand. However, if given the choice casually, most employees prefer while drinking coffee and snacks in delivering SMK3 socialization.

Table 3 also explains that in terms of decision-making, the majority of employees need time to think before they make a decision that feels right. In addition, employees also understand when they can communicate formally and informally either with the Safety Manager or with other employees.

Referring to all the results of data processing through the descriptive data analysis technique above, it provides information that employees in the company still do not fully know and understand about SMK3, this illustrates that the communication flow related to the socialization of SMK3 is still not optimal. This can occur because the communication flow from the Safety Manager is still not effective, especially in conveying or socializing SMK3 to employees, the majority of whom have a high school education, so that in its implementation it can cause obstacles in the field. These obstacles can be caused by differences in views between the Safety Manager and employees on the flow of information conveyed.

Social Constructivism Approach Model Design

To improve the quality of communication and understanding of SMK3 for all company employees, a pedagogical approach through social constructivism is needed, which is adjusted to the conditions in the current company environment. As a first step in implementing the social constructivism approach in the company environment, it can be done by gathering employees in a meeting room or other room to be used as a classroom. Social constructivism is built through several stages as presented in Figure 1 below.

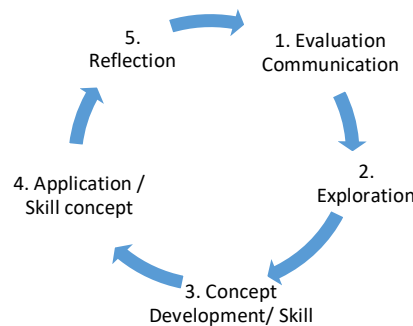


Figure 2: Flow Model of Social Constructivism Approach
Source: Design

Communication Evaluation

The evaluation stage begins by looking at the results of the evaluation/analysis in this study, such as the socialization of SMK3 obtaining a good assessment from employees, this is because employees need to gain knowledge about SMK3 for their own safety at work. Employees are also given the freedom to communicate with the Safety Manager and express their opinions at any time in the form of suggestions and input or communicate directly, in order to facilitate the flow of communication related to SMK3. However, what is interesting is that this socialization is not fully known and understood by all employees. This is due to the educational background of the majority of high school level, so in terms of understanding it is still quite lacking, while employees who understand the application of SMK3 because they have been working in the company for a long time.

Exploration

This stage is a stage to explore the employee as a learner by connecting his/her previous experience and providing general activities that can help the employee to gain new experience. The main purpose of this stage is to reactivate the knowledge that employees already have from previous experiences and focus employees' attention on instructional tasks by setting clear learning/training objectives related to SMK3.

Through classroom discussions, the safety manager can introduce introductory material about SMK3 to all employees, then ask questions to stimulate employees' knowledge from previous experience. This is to direct employees to exchange ideas with other employees from previous experiences related to SMK3. Thus, the Safety Manager can find out the initial knowledge of each employee regarding SMK3.

Determining the objectives clearly needs to be communicated at this stage, so that participants / employees can connect the experiences gained previously with the new

experiences that will be obtained from training activities or the provision of material to be provided.

Concept/Skill Development

This stage builds on the exploration stage by prioritizing key learning experiences that will help develop the concepts or skills desired by the company.

At this stage a Safety Manager or instructor changes his role to a facilitator to guide participants/employees in discussions to gain new experiences. Safety Managers / instructors can use a variety of learning approaches to make topics meaningful to participants. In this case, the approach taken is a case study related to SMK3. In addition, participants/employees are divided into small groups to discuss cases that will be provided in the learning/understanding of SMK3.

The case study approach is a participatory, discussion-based way of learning where participants gain skills in critical thinking, communication, and group dynamics. Through discussion it can engage participants to analyze, propose solutions, evaluate solutions, solve problems, or make decisions.

Concept/Skill Application

The concept application stage is a stage where participants/employees exchange ideas in discussions related to SMK3. Through this activity, employees can foster mutual trust, collaboration, emotional relationships that are established in daily work through deeper and higher quality organizational communication. In addition, employees have the opportunity to express their income obtained from the results of discussions with their group mates and present them. This is because through these activities employees can think analytically and innovatively, complex problem solving, critical thinking and analysis, focusing on creativity, originality and initiative, reasoning, problem solving and developing ideas taken to solve cases submitted by the Safety Manager / instructor.

During these activities, the Safety Manager / instructor can assist employees in carrying out discussion activities to direct and provide input on the solutions they propose related to SMK3, thus creating collaboration between participants and instructors. This can help employees who are not confident, difficult to develop, insecure, etc. (Pendidikan and Perkantoran 2022)

Reflection

The results of learning/understanding of SMK3 in companies through a social constructivism approach with case study learning media can be reviewed through the provision of questionnaires and post tests as material for reflection on employee understanding in the application of SMK3. This activity can be used as further research on how pedagogical science through social constructivism becomes a solution in communication and employee understanding of SMK3. To strengthen reflection materials, in addition to questionnaires, interviews can also be conducted for each individual or group.

4. CONCLUSION

The application of pedagogical science can be done not only in the field of education but can be applied in industry or companies in the form of non-formal learning. The social constructivism approach can be applied and helps in improving communication and understanding of SMK3 in companies with formal and non-formal communication styles. The social constructivism approach is used to support SMK3 in accordance with the procedures applied by the company. Thus, it is necessary to conduct further research on how the social constructivism approach can improve employee understanding and communication in the company through the case study method.

5. REFERENCES

- Anggraeni, Ade Irma Anggraeni. (2017). "Membangun Resiliensi Karir Karyawan di Dalam Organisasi Tinjauan Teori Konstruktivis Sosial." *Sustainable Competitive Advantage*.
- Asiedu, M. A., & Doe, J. K. (2023). Role of Openness in Communication in the Absorptive Capacity and Innovation Generation Link in Higher Education Institutions. *Education Journal*, 12(1), 15-24.
- Billet, S. 1995. "Workplace Learning: Its Potential and Limitations." *Education and Training* 37(4):20–27.
- Bruning, R., G. Schraw, M. Norby, and Ronning. 2004. "Cognitive Psychology and Instruction." Upper Saddle River, NJ: Prentice Hall.
- Cascio, W. F. 1995. "Whither Industrial and Organizational Psychology in Changing World of Work?" *American Psychologist* 50(11):928–39.
- Conner, D. R. 1992. *Managing at the Speed of Change*. New York: Villard Books.
- Engestrom, Y. 2001. "Expansive Learning at Work: Toward an Activity Theoretical Reconceptualization." *Journal of Educational and Work* 14(1):133–56.
- Fardinal, F., Leni, D., & Adril, E. (2022). Pelatihan dan Sosialisasi Keselamatan dan Kesehatan Kerja (K3) di PT PLN (Persero). *Abdi: Jurnal Pengabdian dan Pemberdayaan Masyarakat*, 4(2), 358-364.
- Fenwick, T., and R. Edwards. 2010. *Actor-Network Theory in Education*. London: Routledge.
- Fourie, C., and L. J. V Vuuren. 1998. "Defining and Measuring Career Resilience." *Journal of Industrial Psychology* 24(3):52–59.
- Harisandi, Prasetyo, and Purwanto. 2023. "The Influence of Price Dimensions and Product Quality on Purchase Decisions Mediated by E-Word of Mouth In The TikTok Application." *IDEAS: Journal of Management and Technology* 2(2):1–10.
- Khusna, K., Muhsyi, A., & Saádah, N. (2023). Urgensi Penerapan Keselamatan dan Kesehatan Kerja Pada Organisasi Publik di Kabupten Jember. *Aplikasi Administrasi: Media Analisa Masalah Administrasi*, 49-56.
- Klein, H. J., Fan, J., & Preacher, K. J. (2006). The effects of early socialization experiences on content mastery and outcomes: A mediational approach. *Journal of Vocational Behavior*, 68(1), 96-115.
- Linda, N. (2023). Analisis Hubungan K3 dengan Produktivitas Kerja Karyawan: Literatur Review. *Journal Scientific of Mandalika (JSM)* e-ISSN 2745-5955 | p-ISSN 2809-0543, 4(4), 8-13.
- Mayer, R. E. 1996. "History of Instructional Psychology in D. Corte, & Weinert (Eds.)." *International Encyclopedia of Developmental and Instructional Psychology* 29–33.
- Mishra, N. R. (2023). Constructivist Approach to Learning: An Analysis of Pedagogical Models of Social Constructivist Learning Theory. *Journal of Research and Development*, 6(01), 22-29.
- Muniyappan, D., & Sivakumar, P. (2018). Social constructivism perspectives on teaching learning process. *Paripex-Indian Journal of Research*, 7(2), 361-362.

- Natalia, Y., Kawatu, P. A., & Rattu, A. J. (2022). Gambaran Pelaksanaan Sistem Manajemen Keselamatan dan Kesehatan Kerja (SMK3) Di PT. PLN (Persero) Unit Pelaksana Pelayanan Pelanggan (UP3) Tolitoli. *KESMAS: Jurnal Kesehatan Masyarakat Universitas Sam Ratulangi*, 11(4).
- Nezhnikova, E. V., & Aksenova, A. A. (2014). Occupational Health and Safety Management System as a Tool for Ensuring Safety of Works in Construction Industry. *Proceedings of Moscow State University of Civil Engineering/Vestnik MGSU*, (7).
- Pagoray, G. L. (2022). Penilaian Risiko K3 Dengan Metode Hirarc Dan Safety Policy Pada Preservasi Jalan Oransbari-Mameh Di Kabupaten Manokwari. *Jurnal Ilmiah Ecosystem*, 22(3), 475-486.
- Prastiyo, C. A., & Tejamaya, M. (2023). Budaya Keselamatan Dan Kesehatan Kerja (K3) Di Sekolah Menengah Kejuruan (Smk) Kota Bekasi Tahun 2023. *Jurnal Kesehatan Tambusai*, 4(2), 2561-2572.
- Rachman, R. M., Yuniarsih, T., & Meilani, R. I. (2022). Perancangan Model Pendekatan Konstruktivisme Sosial dalam Peningkatan Kualitas Komunikasi Organisasi STDI Bandung. *Jurnal Pendidikan Manajemen Perkantoran*, 7(1), 65-81.
- Saraswati, R. A., & Putra, W. D. (2023). Analisis Pengaruh Pengetahuan K3 terhadap Perilaku Pekerja Konstruksi (Studi Kasus: Proyek Preservasi Jalan dan Jembatan Ruas Jalan Perintis Kota Makassar). *Journal on Education*, 5(4), 11734-11739.
- Sawchuk, P. H. 2003. "Informal Learning as A Speech-Exchange System: Implications for Knowledge Production, Power and Social Transformation." *Discourse And Society* 14(3):291–307.
- Schmidt, O. S. (2023). What COVID-19 has taught us about effective employee communication. *Journal of Business Continuity & Emergency Planning*, 16(3), 210-217.
- Silaban, P. D. R., Ismainar, H., Muhamadiyah, M., Edigan, F., & Priwahyuni, Y. (2022). Analysis of the Implementation of K3 Promotion at Pt Indokomas Buana Perkasa (Gitet PLN 500 Kv Perawang Development Project, Tualang) in 2022: Analisis Penerapan Promosi K3 Di PT Indokomas Buana Perkasa (Proyek Pembangunan Gitet PLN 500 Kv Perawang, Tualang) Tahun 2022. *Jurnal Olahraga dan Kesehatan (ORKES)*, 1(2), 297-308.
- Trench, B., & Miller, S. (2012). Policies and practices in supporting scientists' public communication through training. *Science and Public Policy*, 39(6), 722-731.
- Undang-Undang No. 1 Tahun 1970 Tentang: Keselamatan Kerja. Sekretariat Negara: Jakarta.
- Von Glasersfeld, E. (1995) "Radical Constructivism: A Way of Knowing and Learning." London & Washington: The Falmer Press.
- Von Glasersfeld. (1987). "The of Knowledge: Contributions to Conceptual Semantics." Seaside, CA: Intersystems Publications.
- Way, D. (2022). The effects of openness of internal reporting and shared interest with an employee on managerial collusion and subsequent cooperation. *Contemporary Accounting Research*, 39(4), 2456-2480.
- Wijaya, V., & Waty, M. (2023). Pengaruh Lingkungan Kerja, Pelaksanaan K3, dan Tenaga Kerja Terhadap Produktivitas Tenaga Kerja. *JMTS: Jurnal Mitra Teknik Sipil*, 355-366.
- Zainagalina, L. Z., & Bulyukova, F. Z. (2020). Arrangements for Practical Training Through the Example of Ufa State Petroleum Technological University. In *International Scientific Conference on Philosophy of Education, Law and Science in the Era of Globalization (PELSEG 2020)* (pp. 428-432). Atlantis Press.