The Sufficiency of Current Training Curriculum for Safety and Health Officer in Malaysia

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Abstract

Reducing the incidence of industrial accidents is important because the question of workplace safety will be able to attract more foreign investment to the country. To achieve this goal, all parties need to play their respective roles, including employees and employers. Any negligence should be avoided in addition to the employer should also provide all security access in the workplace. According to the Occupational Safety and Health Act 1994 (OSHA), a competent Safety and Health Officer (SHO) is required to address safety and health issues in the workplace. However, having such qualifications to help manage workplace safety programs in a variety of industries with very different, challenging, and high-risk environments, seems inadequate. Therefore, a study was conducted to find answers to the question of eligibility and adequacy of an SHO training content to meet the needs of a very different and high-risk workplace and also the question of the adequacy of minimum academic qualifications to perform SHO tasks as specified in OSHA. Analysis of respondents' perceptions will show that the qualifications and content of current SHO training is sufficient to train safety and health officers to serve in various industries in the field of occupational safety and health to perform SHO duties as stipulated in the Occupational Safety and Health Officers Regulations and so on be a key factor in addressing the issue of fatal accidents and permanent disability in the workplace.

Keywords: Safety and Health Act (OSHA); occupational safety and health (OSH); safety and health officer (SHO), training content, workplace.

Introduction

Workers in the industrial sector are those who play a very important role in the development of the country as well as the catalyst for the vibrancy of the industrial world. Without the workers of this industry then an organization or industry will not be able to grow and develop in their respective sectors and this in turn will inhibit the production of the industry and in turn have an impact on the national economy. Malaysia is often shocked by news of accidents both in the construction industry and in other industries that involve high-risk work whether in the field of manufacturing, construction, services and other industries, especially those involving the use of hazardous materials such as chemicals, machinery. etc. The Occupational Safety and Health Act was enacted in 1994, to foster and promote awareness and safety in the workplace. The Social Security Organization (SOCSO) has paid compensation amounting to RM2.6b to contributors involved in accidents for the whole of 2015 while a total of RM2.9b has been paid during 2016 and the amount of compensation paid during 2017 increased to RM3.27b. According to sources from the Social Security Organization (SOCSO) the national accident rate refers to per 1,000 workers in 2015 with a total of 2.81 cases per 1,000 workers while in 2016 it was 2.88 cases per 1,000 workers compared to 2017 was 2.93 cases per 1,000 workers. These statistics show an increasing number of cases over a period of 3 years (2015 - 2017). According to the

records of the Department of Occupational Safety and Health (DOSH), a total of 711 fatal accidents at work were recorded nationwide during 2017 and the number showed an increase compared to 2016 which recorded 688 cases and with reference to the death rate per 100,000 workers in 2015 and 2016 respectively with a rate of 4.84 cases per 100,000 employees showed an increase compared to 2017 of 4.90. "The manufacturing, construction and services sectors account for the highest number of workplace accident cases which is about 38 per cent share of the total number of accidents [Lee Lam Thye - NIOSH Chairman].

Literature Review

The Ministry of Human Resources is concerned about the increase in the number of accidents at work and aims to reduce accidents at work in line with the international benchmark of two cases per 1,000 workers by 2020. The question is whether this target will be achieved and what are the possible constraints.

Reducing the incidence of industrial accidents is important because the question of workplace safety will be able to attract more foreign investment to the country. The problem is that in order to achieve this goal, all parties need to play their respective roles, including employees and employers. Any negligence must be avoided and the employer must also provide all security access in the workplace. Factors of employee safety and health in an industry is a matter that needs to be emphasized in order to ensure the smooth running and development in an industry. Although various safety controls are introduced and implemented by responsible parties such as DOSH, but the accident rate remains at a very alarming level which will hinder the development of an industry. Accidents that occur are often caused by the negligence of workers who do not practice safety instructions during working hours at industrial sites while the problem of recurrent accidents may indicate misunderstanding and ineffectiveness of safety training undergone by workers. A process of change needs to be done to a set level for the purpose of improvement in the management of occupational safety and health in the industrial sector.

Occupational safety and health experts have estimated that around 80% - 90% of accidents that occur in the industry are caused by human factors. From the point of view of reality, the responsibility of an organization in general and the effective responsibility of a Safety and Health Officer (SHO) in particular is seen as not an easy thing, especially for a multinational organization. One of the contents of the OSHA Regulations is the 1997 Safety and Health Officers Regulations, which require companies to meet the requirements set out in support instructions in the Occupational Safety and Health (Safety and Health Officers) Regulations 1997 to employ safety officers and health specifically for safety purposes and a healthy workplace. OSHA (1994) stated that the requirement to employ safety and health officers for high-risk industries is to ensure that the provisions of relevant laws and regulations are complied with and to ensure the safe conduct of work in the workplace. The principles of self-regulation contained in the Act are also supported by the employment of safety and health officers who will assist management in reducing risks and hazards, promoting a safe and healthy workplace and managing occupational safety and health in the organization (NIOSH 2003). With the appointment of these safety and health officers, then there will be individuals who will definitely be directly responsible for implementing safety and health in the workplace. The Occupational Safety and Health Regulations 1997 (PU (A) 315) and the Occupational Safety and Health Regulations 1997 (PU (A) 316) came into force on 22 August 1997. Under this law or regulation, the employer (Safety and Health Officer) from various specific industries need to meet the specific requirements that have been detailed in the Order whereby they are required to employ a competent and competent Safety and Health Officer (SHO).

The Safety and Health Officers (SHO) Regulations 1997 have been named as one of the regulations in the workplace capable of ensuring the safety and health of workers in the workplace. As stipulated in the act which states that a Safety and Health Officer (SHO) is responsible and able to advise his employer in ensuring the safety and health practices of employees in the workplace are complied with consequently? To ensure that a Safety and Health Officer (PKK) gives full commitment to his responsibilities, the qualification and quality of a Safety and Health Officer (PKK) is an important issue. The most serious issues that need to be addressed are the educational background, knowledge, experience and attitudes of each individual to determine the effectiveness of work performance to ensure safety and health practices in the workplace are adhered to. As an organization that wants to succeed, of course, it requires a first-class Safety and Health Officer (SHO) so that every mission and vision of the organization will be achieved. Under the provisions of law 29 (4) of the Occupational Safety and Health Act 1994, it is stated that Safety and Health Officers (PKK) must have the qualifications or have received the training prescribed by the Department of Occupational Safety and Health (DOSH) through training at NIOSH. One of the important roles of SHO from a legal perspective is to advise his employer or any person in charge in his workplace on the measures taken in the interest of safety and health of workers in the workplace (SHO Regulations 1997). The employer or person in charge in the workplace is usually the Chief Executive Officer (CEO) of the company, a very senior position.

The issue here is whether the quality of the existing SHO training content is a key factor in addressing the issue of reducing the rate of fatal accidents and permanent disability in various industries in Malaysia. Abdul Halim Hashim a former DOSH officer, in his study "Study of Training Needs for Safety and Health Officers in the State of Selangor" (Halim 2003) found that 28.6% of SHO respondents in his research noted difficulties in carrying out their duties to advise their employers on measures-safety measures in the workplace due to their lack of knowledge and experience. The problem or the question here is, does a Safety and Health Officer (SHO) have sufficient knowledge of an organization in an effort to strengthen the quality of

occupational safety and health in the industry? Therefore, this study is highly relevant to determine whether the training content for SHOs is adequate to carry out their duties and responsibilities.

Based on the problem statement above, this study leads to a new approach in improving the existing training content as well as the development of new training content based on the new paradigm. Accordingly, among the objectives of this study are:-

i. To identify the extent to which the current training content in Occupational Safety and Health Institutions for Safety and Health Officers (SHOs) is sufficient to produce competent and competent Safety and Health Officers (SHOs) according to different industries.
ii. To identify methods of improvement needed.

There are five categories of Safety and Health Officers (SHO) in the United Kingdom based on their qualifications awarded by the National Examination Board on Occupational Safety and Health (NEBOSH). Courses at the Diploma level are designed to equip Safety and Health Officers (SHOs) with appropriate professional level qualifications to perform responsibilities in relation to hazard risks in the workplace. The NEBOSH National General Certificate is a qualification designed to help those who have safety and health responsibilities (e.g., managers, supervisors and employee representatives) to perform organizational duties and functions more effectively.

The Malaysia SHO curriculum consists of 4 modules and the course duration is for 20 days (160 hours) (Table 1) compared to the National Diploma UK I which consists of 6 modules and 25 days of training (Table 1). Modules 1 and 2 in both curricula are more or less the same, covering OSH management and OSH law. Module 3 of SHO Malaysia covers occupational health subjects, which are found in Module 5 National Diploma UK Part I. Although Module 4 SHO Malaysia covers occupational safety subjects, but in National Diploma Part I UK it is found in Modules 3 and 4. National Diploma UK is more detailed by consisting of 9 days of training compared to 5 days for SHO Malaysia. The UK National Diploma also has extra days for communication skills and training in its syllabus. Although the Malaysian SHO curriculum prepares candidates to become OSH practitioners in all industries, but in the UK the practitioners are only for lower class workplaces.

The UK Diploma Part II is an introductory course in OSH equivalent to a foundation degree, where students can pursue a Master's degree program. The program prepares security actors who deal with a broader range of risks, both in terms of complexity and magnitude. In general, it can be seen that programs for security personnel in the UK are divided into two levels of academic awards and three areas of specialization aimed at different organizational settings and areas of expertise.

Table 1: Comparison of SHO Malaysia Curriculum and United Kingdom

MODULE	NIOSH SHO (MALAYSIA)	NEBOSH DIPLOMA PART I (UK)	NEBOSH DIPLOMA PART II (UK)
I	OSH MANAGEMENT (6 days)	THE MANAGEMENT OF RISK (5 days)	THE MANAGEMENT OF RISK (5 days)
II	OSH LEGISLATIONS (4 days)	LEGAL AND ORGANISATIONAL FACTORS (5 days)	LEGAL AND ORGANISATIONAL FACTORS (3 days)
III	OCCUPATIONAL HEALTH (5 days)	THE WORKPLACE - Safety in the workplace (5 days)	THE WORKPLACE (5 days)
IV	OCCUPATIONAL SAFETY (5 days)	WORK EQUIPMENT - Electrical & machines safety, manual handling. etc. (4 days)	WORK EQUIPMENT (5 days)
V		AGENTS - Occupational health risk (5 days)	AGENTS (8 days)
VI		Common skills - Communication & Training (1 day)	
TOTAL DAYS	20 Days	25 Days + 90 hours of private study	26 Days + 100 hours of private study

From the various training content in the United Kingdom mentioned above, it can be seen that there are many potential settings and organizations for safety and health officers, each with a specific purpose and emphasis. Therefore, this study aims to discover the perceptions of our own security officers about their own jobs and what needs to be applied. The following are references of training content from other countries such as Canada, Philippines and Thailand:

Table 2: Comparison of Training Content in Canada, Philippines and Thailand

Country	Module	Training Syllabus
Canada	SHO 1	Basic Level
	SHO 2	Full working level
	SHO 3	Operate regional office & supervisory
	SHO 4	Full supervisory level
Philippines	SHO 1	Part-time safety officers
	SHO 2	Full-time safety officers
	SHO 3	Practitioners in OSH
	SHO 4	Consultants in OSH.
Thailand	SHO 1	Safety Official at the level of basic work
	SHO 2	Safety Officer at the level of foreman
	SHO 3	Safety Officer at the level of executive
	SHO 4	Safety Officer at professional level.

However, the training content from the UK was found to be more relevant to be used as the closest reference in making a comparison with the existing training content in Malaysia.

Methodology and Finding

The study is a descriptive study and a systematic method for the purpose of examining the current status of the phenomenon in various industries today in Malaysia. The study that will be implemented is by using primary data which will involve a questionnaire by using a questionnaire to obtain information directly from the respondents. Questionnaires will be distributed to respondents to obtain the required primary data. The data will be obtained through individual interviews and further these data will be analysed. From the records of the Department of Occupational Safety and Health (DOSH), the industries that contribute the highest rates of accidents at work are the manufacturing, construction and service industries. About 38 percent share of the total number of accidents [Lee Lam Thye - Chairman of NIOSH] As a result, the study sample is from three different industries namely Construction, Manufacturing and Petro Chemicals which require Safety and Health Officers (SHO) under Malaysian occupational safety and health law or act. The atmosphere, nature of work activities, hazards and risks in the three industries selected for this study are different and demand different levels of competence from their Safety and Health Officers. Sample of Safety and Health Officer respondents is composed of individuals u who attended a Safety and Health Officer course with NIOSH or other training providers as well as who have passed the Safety and Health Officer examination. The data analysis tool used in this study is the Statistical Package for the Social Sciences (SPSS) version 20. The statistical parameters analysed include descriptive tests of frequency and percentage on the respective variables in the survey which is very useful for further testing such as analysis of variance (ANOVA) and correlation tests.

Through questionnaires by distributing forms according to their respective industries, namely the Manufacturing Industry, Petro Chemical Services Industry and the Construction Industry. The results from the feedback obtained show a high percentage and frequency of "Insufficient" feedback on Modules I to IV (Table: 3).

Table 3: Frequency and Percentage of Adequacy of SHO Module Training Content in the Manufacturing Industry

Module	Very Adequate		Adequate		Less Adequate		Not Adequate		Number of respondents
	K	%	K	%	K	%	K	%	
I	1	2.4	3	7.1	12	28.6	26	61.9	42
II	1	2.4	2	4.8	9	21.4	30	71.4	42
III	2	4.8	2	4.8	15	35.7	23	54.7	42
IV	0	0	2	4.8	12	28.6	28	66.6	42

The same feedback is also for Petro Chemical Services Industry and Construction Industry where the high percentage and frequency of "Insufficient" feedback for Module I to Module IV (Table 4 & Table 5):-

Table 4: Frequency and Percentage Adequacy of SHO Module Training Content in Petro Chemical Services Industry

Module	Very Adequate		Adequate		Less Adequate		Not Adequate		Number of respondents
	K	%	K	%	K	%	K	%	
I	0	0	0	0	10	28.6	25	71.4	35
II	0	0	1	2.9	12	34.3	22	62.8	35
III	1	2.9	2	5.7	14	40.0	18	51.4	35
IV	0	0	2	5.7	12	34.3	21	60	35

Table 5: Frequency and Percentage Adequacy of SHO Module Training Content in Construction Industry

Module	Very Adequate		Adequate		Less Adequate		Not Adequate		Number of respondents
	K	%	K	%	K	%	K	%	
I	0	0	3	6.8	13	29.6	28	63.6	44
II	2	4.5	2	4.5	16	36.4	24	54.6	44
III	1	2.3	4	9.1	14	31.8	25	56.8	44
IV	0	0	2	4.5	12	27.3	30	68.2	44

Among the reasons and reasons from the feedback received to give feedback "Not Enough" for the training content in Module I to Module IV are:

- Most of the subjects are not related to the industry
- The content of the subject is not in -depth
- Many items in the subject do not cover safety requirements in

Conclusion

The main concern in the content of Safety and Health Officer (SHO) training is whether or not it is sufficient to provide Safety and Health Officer (SHO) for the industry that needs it. The industries required to hire Safety and Health Officers (SHOs) enshrined under the Law are numerous and comprise various classifications in terms of activities, raw materials, processes as well as existing hazards and risks. The three industries selected in this study - manufacturing, petrochemical and construction now have a wide range of activities, hazards and high risks. The results show that the training content of Safety and Health Officers (SHO) in training centres (e.g.: NIOSH) is not sufficient to provide Safety and Health Officers (SHO) for the industry. There were similarities in the perceptions of the respondents who provided feedback on the inadequacy of training content between the four SHO modules who were competent Safety and Health Officers (SHOs) serving in their respective industries. The average inadequacy level for the four SHO modules shown in this study was also high (approximately 70%). Statistical analysis showed that the perceptions given by the respondents about the subject were inconsistent. As is well known, a competent Safety and Health Officer (SHO) refers to conduct that demonstrates an individual's knowledge, skills or abilities performed to a certain standard. It can be defined as an act of behaviour that requires a combination of skills in order to perform it successfully. In other words, competence consists of the combination of knowledge, skills and abilities required to perform a major task or function in a given work environment. Therefore, it can be concluded that a competent Safety and Health Officer (SHO) is his skills in performing his responsibilities consistently based on the characteristics of his knowledge within the scope of work that has been set effectively.

In this regard, a Safety and Health Officer (SHO) should have skills in risk control methods and hazard identification, assessment, safety inspection and accident investigation processes and adequate knowledge in occupational safety and health laws in order to address the issue of personal accidents and permanent disability and it is a major factor that needs to be considered in order to achieve zero fatal accidents and disability in various industries in our country. If the existing training content does not have enough knowledge to produce a Safety and Health Officer (SHO) who can perform his responsibilities as a Safety and Health Officer (SHO), then the industries in Malaysia will not be able to meet the target to achieve zero accidents and accident statistics will still be.

Recommendations

This study assesses the perceptions of Safety and Health Officers (SHOs) related to the adequacy of Safety and Health Officer (SHO) training content based on NIOSH model to prepare candidates to become competent Safety and Health Officers (SHOs) and be able to carry out their duties and responsibilities accordingly. In order to achieve the target of zero accidents in the industrial sector, it is proposed that the agencies involved such as the Department of Occupational Safety and Health (JKKP/DOSH) and the National Institute for Occupational Safety and Health (NIOSH) review the training content to produce

Safety and Health Officers competent, improve eligibility requirements and subsequently introduce new approaches (e.g. new methods in system management) that will contribute in strategizing the safety and health management system of workers to reduce industrial accidents and increase productivity so that the results later Malaysia will continue to maintain workplace accident statistics at the lowest possible position in order to improve Malaysia's image on the international stage when companies at home and abroad are confident of the government's concern in this aspect.

An equally important input on the subject, which was not addressed in this study was the opinion of the employers themselves. Opinions and feedback from employers as an independent group with a direct interest in the issue will aid the findings and clarify the issues from their perspective future. In fact, with the right strategy and funding the sample size can be further increased to get better results. NIOSH as the recipient of such a study needs to come forward to provide funding and extend its support in this study. It will make a lot of difference in terms of the number of samples and the cooperation given by the respondents if such assistance is obtained. Another equally important entity in this study is the Department of Occupational Safety and Health (DOSH). If their involvement or assistance can be guaranteed then better results can be expected.

There are many issues that can be studied regarding Safety and Health Officers (SHO) as well as the scope of employment in the industry. However, care should be taken not to address too many issues and overly complex questionnaires in future studies. Concentration should be given to the problems they face and if possible, form a mechanism to survey the perceptions of the respondents in the study that will carried out later.

REFERENCE

Abdul Halim. (2003). "Training Needs Assessment of Safety and Health Officers in the State of Selangor".

ChanRobles Virtual Law Library. (2001). Philippine Labor Circular. "Training and Accreditation of Personnel on Occupational Safety and Health". (On-line) http://www.chanrobles.com/doledepartmentorderno16-2001.html

Clarke, S(1998Perceptions of organizational safety: Implications for the developments of safety culture. *Journal of organizational behavio*r, 20.pp185 – 198.

Factories and Machinery Act & Regulations 1967 (Act 139).Malaysia

Foyster J. (1990). "Getting to Grips with Competency-Based Training and Assessment".TAFE National Centre for Research and Development: Leabrook, Australia

Geller, E.S. (1995). Key to achieving a Total Safety Culture. Profesional Safety. 40(7), 16.

Griffin, M.A., & Neal, A. (2000). Perceptions of safety at work: A framework for linking safety climate to safety performance,knowledge and motivation. Journal of Occupational Health Psychology 5: 347- 58.

Heinrich, H.W., Peterson, D., and Roos, N., (1980). Industrial Accident Prevention: a Safety Management Approach, 5th Edition, New York. Mc Graw-Hill.

Hudson, P.(2007). Implementing a safety culture in a major multi-national. *Safety science* 45 (2007) 697-722.

International Labour Organisation (ILO). 2001. ASIA-OSH. Notification of Ministry of Labour & Social Welfare. (Online)http://www.ilo.org/public/english/region/asro/bangkok/asiaosh/std_le/ national/thailand/thmlsw1.htm

Ismail Bahari. (2002). "Pengaturan Sendiri di Dalam Pengurusan Keselamatan dan Kesihatan Pekerjaan". Hlmn 69-74. Kuala Lumpur: Mc Graw-Hill (Malaysia) Sdn. Bhd.

JGN Consulting. Competency-based Training Tutorial. (On-line) http://home.att.net/ ~jnimmer/Competency.htm

Kamal Halili. (2001). "Undang-undang Keselamatan Industri di Malaysia". Kuala Lumpur: Percetakan Dewan Bahasa.

Manitoba Canada. (2001). Labour Relations. Safety and Health Officer. (Online)http://www.gov.mb.ca/finance/labour/new_class/class_specs/safetyhlth.html

National Institute of Occupational Safety and Health (NIOSH). NIOSH 2003 Course Hand Book. Kuala Lumpur

National Institute of Occupational Safety and Health (NIOSH). Safety and Health Officer Examination.(On-line) Kuala Lumpur http://www.NIOSH.com.my

National Examination Board in Occupational Safety and Health (NEBOSH).Awards National Diploma in Occupational Safety and Health. United Kingdom. (On-line) http://www.nebosh.org.uk

National Institute of Occupational Safety and Health (NIOSH). "Perundangan Keselamatan dan Kesihatan Pekerjaan. Manual Kursus Pegawai Keselamatan dan Kesihatan". Kuala Lumpur.

Occupational Safety and Health Act 1994. (Act 514).Malaysia

Pembangunan Sumber Manusia Berhad. (PSMB). (2003). "PSMB Training Scheme". (Online). http://www.hrdnet.com.my/eng.html

Peraturan Keselamatan dan Kesihatan Pekerjaan (Pegawai Keselamatan dan Kesihatan). (997). Malaysia

Rohana Ibrahim. (2000). Keberkesanan latihan dalam sektor industri. Universiti Utara Malaysia.

States of Minnesota. (2004). Department of Employee Relations (DOER). Safety and Health Officer Classification. (On-line) http://www.doer.state.mn.us/stfcs-   ac/CSPCS-S/s-1400.htm

Sullivan R. (1995). "The Competency-Based Approach to Training. Reproline". (On-line) http://www.reproline.jhu.edu/english/6read/6training/cbt/cbt.htm

Tyler R.W. (1949). Basic principles of curriculum and instruction. Chicago: The University of Chicago press.