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Development of a training Program towards an Effective Safety Practices

Orlean G. dela Cruz [1], Guillermo O. Bernabe [2]
Department of Engineering Science, Polytechnic University of the Philippines
College of Engineering, Polytechnic University of the Philippines

Abstract: ***The construction industry is one the most accident-prone work fields in the world. According to Balan Nair Asia-Pacific Regional Representative, safety is a major problem in the construction industry in the Philippines. In addition thereto, safety issues arise as the biggest factor in the most fatal work-related accidents occurring in the construction. Given so, it shall be ensured that the workers are competent enough as they struggle in the rigors and possible encounters in the field. Trainings and seminars are some of the key activities to hone and develop a competent safety practitioner. Thus, with a competent Safety Practitioner, achieving zero incident and free from all illnesses is possible. The presence of competent Safety Practitioners is one of the key factors to maintain the working environment with "zero accident/illnesses". The study aims to develop a training program towards safety practices and seeks to assess the level of effectiveness of Safety Practitioners in selected Construction Companies as the basis for the development of a training program.***

Keywords: **PUP; OSH Standards; Safety Practitioner; Safety Training Program; Safety Practices.**

I. INTRODUCTION

Since construction is on the upswing due to the demand of development, safety has been subject of many tragedies, studies, debates and improvements. It is undeniable that construction is everywhere since it is the one of the many priorities of both the private and public sectors of the Philippines. It has also been public knowledge that construction involves many people engaged in various activities. To some, construction is as easy creating a block of building but many are not aware of the risky situations that workers might experience, most especially when handling construction equipment.

Today, as technology improves and safety practices procedures are updating, the working environment in our country is safer than it has ever been before. Does having a competent safety practitioner the prime reason for establishing a safe work environment?

Safety Practitioners are the people responsible for the assurance of implementing the acceptable levels of safety standards. Their primary goal is to manage, eliminate and reduce risks. They monitor the work environment, inspect buildings and machines, and implement safety features. The severity of a failure may result in fatalities, injuries, property damage and loss of money. Safety Practitioners reduce the frequency of failure and ensure that the consequences are not life threatening.

Accidents are investigated to determine its cause and prevention. Safety practitioners ensure that new equipment's are safe to operate. Also, safety practitioners propose safety clothing appropriate in the activities and devices to protect workers from injuries.

Specialization in this field of engineering has developed considerably over many years. There are now more available safety practitioners in the construction industry than before. Despite this, little are known about the value of Safety Practitioners.

Some countries are in the process of developing safety standards for workers. This systematic review was made to analyze the research evidence on the competencies of Safety Practitioners in order to gain a deeper understanding of its effects.

II. RESEARCH METHODOLOGY

This study used descriptive survey method. This method was used to qualitatively describe the assessment scores obtained from all respondents. The study involved the construction of the survey questionnaires and subjected to various procedures to ensure the validity and reliability of the evaluation instrument. In order to draw the data needed to answer the specific problems in the study, the researcher utilized survey questionnaire as its data gathering instruments. The primary data were derived from the answers of the two group respondents during survey process. The survey questionnaire was divided into two main parts; (I) a profile and the (II) survey proper. The survey questionnaire was separately constructed for the (A) Safety Practitioners and (B) Project Managers/Immediate Head. The profile contains socio-demographic characteristics of the respondents such as role in the company, age and as well as the number of years of experience. The survey proper was divided into multiple parts categorized as *(1) Present Job Duties / Safety and Health Practices (2) Business Knowledge (3) Management Competencies and (4) Personal Credibility*. The following statistical treatment were used to interpret the results on the level of effectiveness of safety practitioner of this study; Frequency and Percentage Analysis, Weighted Mean, Likert 5 Point Scale with 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often and 5 = Always applied.

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III. RESULTS AND DISCUSSION

A. *Profile of Respondents*

Background information on respondents' profile shows that 65.91% of the respondents were safety practitioners and 34.09% were project managers / immediate head. In terms of Age, 15 safety practitioners or 34.09% of the respondents' age was from 26-35 and below 25 with no project manager. In terms of years of experience in practicing safety, 15 safety practitioners or 34.09 % of the respondents from 2 - 5 years, and no safety practitioners had more than 10 years of experience. From the above- mentioned, it can be determined that the respondents could depend on the information provided for this study for the purpose of analysis.

Department of Labor and Employment Order No. 16, Series of 2001, state that the basis of being an accredited Safety Practitioners in the Philippines is under the Rule 1030 of the Occupational Safety and Health Standards [5].

Table 2. Frequency and Percent Distribution of the Respondents - in terms of Age

Age	Safety Practitioner		Project Manager/ Immediate Head	
	Frequency	%	Frequency	%
Below 25	4	9.09%	0	0.00%
26 – 35	15	34.09%	3	6.82%
36 – 45	9	20.45%	7	15.91%
46 and above	1	2.27%	5	11.36%
Total	29	65.91%	15	34.09%

Table 3. Frequency and Percent Distribution of the Respondents - in terms of Years of Experience

Years of Experience	Safety Practitioner		Project Manager/ Immediate Head	
	Frequency	%	Frequency	%
Below 2	11	25.00%	1	2.27%
2 – 5	15	34.09%	4	9.09%
6 – 10	3	6.82%	8	18.18%
11 and above	0	0.00%	2	4.55%
Total	29	65.91%	15	34.09%

B. *Level of Effectiveness of Safety Practitioner*

This study was anchored on the concept introduced by Ng Cheuk Ping (1999) on his study there are four domains of Registered Safety Officers competencies, namely Safety and Health Practices, Business Knowledge, Management Competencies, and Personal Credibility [11]. Tables were based on the mentioned domains.

As per Al-Kilani's article during the year 2011, the contractors have to train the workers, promote the safety culture, and follow-up the safety performance [1].

Present Job Duties (Safety and Health Practices) by Role/Position in the Company according to Age in practicing safety were all often applied. The competency of Identify/evaluate/control risks at work got the highest general weighted mean of 4.93. On the other hand, competency of Conduct of Safety Audits got the lowest general weighted mean of 3.53. And, Present Job Duties (Safety and Health Practices) by Role/Position in the Company according to Years of Experience in practicing safety were all often applied. The competency of Identify/evaluate/control risks at work got the highest general weighted mean of 4.93. On the other hand, competency of Conduct of Safety Audits got the lowest general weighted mean of 3.07.

Business Knowledge by Role/Position in the Company according to Age in practicing safety was all sometimes applied. And, Business Knowledge by Role/Position in the Company according to Years of Experience in practicing safety were all sometimes applied.

Management Competencies by Role/Position in the Company according to Age in practicing safety were all often applied. The competency of Exchange information to solve problems and make decisions got the highest general weighted mean of 4.33. On the other hand, competency of Recruit and select personnel got the lowest general weighted mean of 2.60. And, Management Competencies by Role/Position in the Company according to Years of Experience in practicing safety were all often applied. The competency of Exchange information to solve problems and make decisions got the highest general weighted mean of 4.33. On the other hand, competency of Recruit and select personnel got the lowest general weighted mean of 2.33.

Personal Credibility by Role/Position in the Company according to Age in practicing safety were all often applied. The competency of In-still confidence in self and others got the highest general weighted mean of 4.48. On the other hand, competency of Provide alternative insights on business issues got the lowest general weighted mean of 3.52. And, Personal Credibility by Role/Position in the Company according to Years of Experience in practicing safety were all often applied. The competency of In-still confidence in self and others got the highest general weighted mean of 4.48. On the other hand, competency of Provide alternative insights on business issues got the lowest general weighted mean of 3.47.

Jackson et al. (2004) suggest that the protection of emergency responders should follow a safety management cycle, and those responsible for safeguarding emergency workers must always weigh up whether deploying emergency workers is sufficiently beneficial or otherwise. Safety practices and accident prevention to help safety personnel and management reduce injuries and fatalities at work. Based from the related materials perused no study was found that focused on developing a training program except for journals on competencies. If appropriate training was given to Safety Practitioners, they become competent doing their jobs. Having competent workers is a key to having a safe work

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environment and achieving zero accidents / illnesses. This study will help to develop training programs for Safety Practitioners to boost their skills and abilities.

Table 3. Level of Effectiveness of Safety Practitioners

Four Domain of Competencies	Weighted Mean	Verbal Interpretation
Safety Health and Practices	4.36	Often
Business Knowledge	3.20	Sometimes
Management Competencies	3.73	Often
Personal Credibility	4.06	Often

IV. CONCLUSION

With the use of the survey instruments developed in this study, data were collected which addressed the research problems posed by this study. After crucial analysis and interpretation of the various data, the following conclusions were drawn: majority of the respondents were Safety Practitioners, 26-35 years old, and with an experience in safety practices in 2-5 years. Level of effectiveness of Safety Practitioner, when grouped according to profile, it is considered that: *Identify/ evaluate/ control risks at work* is the most significant among the *Personal Job Duties (Safety Health Practices)* section; by the extent to which the two respondents agreed that *Business Knowledge* is necessary; *Exchange information to solve problems and make decisions* has the highest rating among the *Management Competencies*; the competency in *Meeting commitments* is the most important factor among *Personal Credibility*; competency of *Conduct of Safety Audits* got the lowest general weighted mean of ***3.53*** in the category of *Present Job Duties (Safety and Health Practices)*, meaning the category is considered as sometimes applied by the Safety Practitioners. The abovementioned competency needs enhancement.

According to Sylge, C, (1995), a personal programme of training needs to be built up by an individual as part of their working life – it is not pre-planned by the organization [13]. The course shall help the safety practitioner effectively audit construction safety operational and safety management systems. Also, the course will teach them recommend possible solutions and sought agreement on corrective actions in construction safety.

It is therefore recommended to have a program/training that will enhance the construction safety- auditing course of a Safety Practitioner or create another training related to construction safety auditing course.

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AUTHOR BIOGRAPHY

Orlean G. dela Cruz is an Engineering Cluster Research Coordinator, Chief for Building Maintenance and also, Chairperson of the Engineering Science Department at the Polytechnic University of the Philippines. He received the degree MSc in Construction Management from PUP - Open University System in 2015, the degree BSc in Civil Engineering from PUP in 2009. His current research interests include civil engineering, environmental and material science, sustainable built environment, and construction safety management.

Guillermo O. Bernabe DEM is an Associate Professor V and currently, Dean of the College of Engineering at the Polytechnic University of the Philippines. His academic qualifications include a BSc in Civil Engineering, Master in Construction Management and a Doctor of Educational Management. His current research interests include sustainable built environment, civil engineering, educational management, material sciences, and construction safety management.