

Safety and Health Study of Construction Workers to Improve Work Productivity

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Abstract—Occupational health and safety, especially in construction projects in recent months, is a concern for many parties. This is due to the construction projects that are spread throughout the region almost simultaneously. The construction project certainly has a big risk if it is not carried out in accordance with the rules that have been set and agreed upon together. Not a few work accidents caused by negligence of workers in the field, planning, and natural factors. One of them was written by Kompas.com in 2018 entitled eleven cases of accidents occurred in six months. This research was carried out by direct observation to building construction projects. Record information and document worker behavior related to occupational safety and health in construction projects. The results of the study found that before starting work, every worker was given training on construction methods, the risk of accidents, and also personal protective equipment that must always be used while working. Another finding in the field that some workers do not want to use personal protective equipment is only for reasons that they cannot work freely even though they understand the risks.

Keywords— *safety; health; productivity*

I. INTRODUCTION

Attitude is one of the terms psychology midwives that relate to perception and behavior. The term attitude in English is called attitude. Attitude is a way of reacting to a stimulus. A tendency to react to a stimulus or a situation at hand. According to the Indonesian dictionary, the notion of attitude is an act based on beliefs based on norms that exist in society and usually religious norms [1].

Human behavior is an act or activity of the human being itself which has a very broad stretch. Bohar Soeharto said behavior is the result of the teaching and learning process that occurs as a result of his interaction with the surrounding environment caused by personal experiences.

Attitudes and behaviors are different things, attitudes occur because they are based on knowledge possessed by the person concerned while behavior occurs because of the personal experience of the person himself without being based on his knowledge. Based on the above definition, we decided to examine the attitude of a person, not someone's behavior. And this is related to the habits of construction workers who do not want to use personal protective equipment while working.

Many work accidents occur in building construction project workers. Why did the accident occur? What caused this to happen? In addition to natural factors, work accidents can occur due to human factors themselves. Not only negligence, lack of concentration, wrong work procedures when doing work alone causes caused by human factors. The indiscipline of the workers towards the use of protective equipment is what causes the chance of the occurrence of work accidents to be even greater. What is the cause of the workers' indiscipline ?, from this question, we try to examine what causes workers not to use personal protective equipment while working so we can conclude what is the main cause of unwillingness for construction workers to use personal protective equipment.

The lack of use of personal protective equipment by construction workers is a problem that must be known at the root of the problem so we formulated a number of questions to answer these problems. The question is as follows:

- Why do construction workers not want to use personal protective equipment while working?
- What factors make construction workers unwilling to use personal protective equipment while working?
- What is the solution to minimize workers who do not want to use personal protective equipment while working?

This study aims to determine the attitude of the workforce against the use of personal protective equipment and the main reason why they do not use the tool. And to find solutions for contractors and workers so that no more workers do not use personal protective equipment while working.

II. LITERATURE REVIEW

A. The Nature of Attitude

Attitude is one of the terms psychology midwives that relate to perception and behavior. The term attitude in English is called attitude. Attitude is a way of reacting to a stimulus. A tendency to react to a stimulus or a situation at hand. According to the Indonesian dictionary, the notion of attitude is an act based on beliefs based on norms that exist in society and usually religious norms [1].

However, the actions that will be done by humans usually depend on the problem and really based on their beliefs or beliefs. Ellis suggested that attitude involves some knowledge about something. But the essential aspect of attitude is the feeling or emotion, the tendency towards actions related to knowledge. From the understanding expressed by Ellis, the attitude involves knowledge of something including the situation. The situation here can be described as an object that will ultimately affect feelings or emotions and then allow the emergence of a reaction or response or tendency to do.

In some cases, attitude is the most important determinant of human behavior. As a reaction, the attitude is always related to two alternatives, namely like (like) and dislike to carry out or stay away from it. Thus knowledge of something is the beginning that affects an attitude that might lead to an action. Attitudes are also interpreted as a construct to enable an activity to be seen.

Understanding the attitude itself can be viewed from various related elements such as attitudes with personality, motives, behavior, beliefs and others. However, understanding can be taken that has similar characteristics; attitude is behavior related to the willingness to respond to social objects that carry and lead to real behavior from someone. That means a behavior can be predicted if the attitude is known. Although the manifestation of this attitude cannot be seen directly, it can be interpreted as a closed behavior. Everyone has a different attitude towards something object. This is caused by various factors that exist in each individual such as differences in talents, interests, experiences, knowledge, intensity of feelings and also the environmental situation.

Likewise, a person's attitude towards something similar may not be the same. Many sociologists and psychologists limit that attitude is an individual's tendency to respond in a special way to the stimulus in the social environment. Attitude is a tendency to approach or avoid, positive or negative towards various social conditions, whether it is institutions, individuals, situations, ideas, concepts and so on. Gagne added that attitude is an internal state that influences the choice of individual actions against several objects, personal, and events. Meanwhile, according to Saefudin Azwar, attitude is one of the personality elements that must be possessed by a person to determine his actions and behave towards an object accompanied by positive and negative feelings.

Then psychologists dismiss attitude is a form of feeling evaluation or reaction. And this attitude formulation is associated with positive affect and negative affect associated with a psychological object. So that attitude relates to a person's feelings towards an object rather than an action, where the feeling is sometimes positive and sometimes negative. The definition looks at attitude from an evaluation point of view.

Thus, attitude is a positive or negative evaluation system, namely a tendency to approve or reject. A positive attitude will be formed when the stimulus that comes to someone gives a pleasant experience. Conversely a negative attitude will arise, if the stimulus that comes gives an unpleasant experience. The attitude difference relates to the degree of favor or dislike of the object being faced, or in other words the attitude concerns

the readiness of the individual to react to a particular object based on a positive-negative assessment concept.

Therefore, attitude is an evaluative statement, both profitable and unfavorable regarding objects, people or events. Other experts in the field of social psychology and personality psychology have another concept of attitude, that is, "attitude is a kind of readiness to react to an object in certain ways. Readiness in this definition is interpreted as a potential tendency to react when individuals are faced with a stimulus or stimulus that requires a response [2].

So, it can be said that the attitude as a response, this is based on the evaluation process in the individual who ultimately will give a conclusion in the form of value to the stimulus in good or bad form - positive or negative, pleasant or unpleasant, likes or dislikes which then crystallize or not as a potential reaction to an object. Thus, attitude is a dynamic aspect of behavior, can change, be shaped or influenced. Environmental conditions and situations at a time and somewhere are undoubtedly influential on a person's attitude statement. In a state of immediate or indirect safety, someone will tend to express an attitude that can save him or her even if it is not in accordance with his conscience [3].

B. Personal Protective Equipment in Installing Brick Walls

Personal Protective Equipment (PPE) is a requirement that must be used when working in accordance with hazards and occupational risks to maintain the safety of the workers themselves and those around them. The obligation has been agreed by the government through the Ministry of Manpower of the Republic of Indonesia in the Regulation of the Minister of Manpower and Transmigration of the Republic of Indonesia Number Per.08 / MEN / VII / 2010.

Terms of Personal Protective Equipment, as follows:

- Child is used.
- Does not interfere.
- Provide effective protection in accordance with the type of workplace hazard.

Here are the Personal Protective Equipment used in brick wall installation:

- Safety Helmet: serves as a head protector from objects that can hit the head directly.
- Safety Belt: serves as a safety device when using transportation equipment or other similar equipment (cars, planes, heavy equipment, etc.).
- Rubber boots: serves as a safety device when working in muddy or muddy places. Most are lined with metal to protect the foot from sharp or heavy objects, hot objects, chemical liquids, etc.
- Gloves: serves as a protective device when working in a place or situation that can cause hand injury. The material and shape of the glove are adjusted to the function of each job.

- Work clothes: special work clothes for work with certain sources of danger such as heat radiation, ionizing radiation, liquids and chemicals. Protective clothing is used in certain workplaces such as Apron (cover / hold radiation), which serves to cover part or all of the body from heat, sparks, cold temperatures, chemical liquids, oil, from harmful or toxic gases, and from light.

III. RESULTS

Because this research is divided into nine groups of questions, we have grouped the results according to their respective groups. With the following results:

- Basic knowledge of PPE 95,93%.
- Knowledge of the risk of workplace accidents 88,15%.
- Ownership of personal protective equipment 100%.
- Care for personal protective equipment 100%.
- Personal awareness 85,33%.
- Comfort in using personal protective equipment 86%.
- Work environment 86,67%.

- Experience with personal protective equipment 60%.
- Confidence in personal protective equipment 100%.

IV. CONCLUSION

We can conclude that the indiscipline of workers in using personal protective equipment is not because they do not know what personal protective equipment is and the cause of work accidents. They all know and are aware of this because they routinely get socialization from contractors but it is the habits and environmental influences that make them not use personal protective equipment even though the tools have been provided in the project, and there is still a culture of not reminding each other between workers and not caring about personal safety is one of the factors why workers do not want to use personal protective equipment.

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