

# Analysis Of The Application Of Safety, Occupational Health (K3) On Projects Construction Of Man 1 Aceh Barat Princess Dormitory Building

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**Abstract:** Work mishaps on development undertakings can be brought about by different elements, one of which is laborer carelessness, specialist indiscipline, absence of specialist experience, and laborers who don't have any significant bearing word related wellbeing security (K3). Because of work mishaps that happen cause misfortunes for laborers and undertaking implementers. These misfortunes can be as loss of property, super durable incapacity and death toll. This shows that word related wellbeing and wellbeing is vital to be applied in each development project action. This study intends to decide the degree of use of K3 in the development venture of the female boarding school of MAN 1 Aceh Barat by noticing the work under study, to be specific substantial work and steel work. Information was gathered through field perceptions and circulating surveys to the example utilizing the evaluation technique with the goal that an example of 50 individuals was acquired comprising of laborers and gatherings straightforwardly engaged with this task. The strategy utilized in this study is a blended technique, to be specific subjective techniques and quantitative strategies. For factual examination of information handling, legitimacy and dependability tests were completed, while engaging rate investigation was utilized to dissect information. The consequences of the accomplishment of the utilization of word related security and wellbeing (K3) in this review, acquired the aftereffects of (16%). These outcomes show that the execution of word related security and wellbeing (K3) in the development venture of the MAN 1 Aceh Barat Islamic all inclusive school building was not done as expected, this was because of the absence of consciousness of laborers on word related wellbeing and wellbeing (K3), the joining of partners who didn't wear PPE, and the absence of Individual Defensive Gear (PPE) worked with by project implementers.

**Keywords:** Safety, Health, Work, Project, Building

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## I. INTRODUCTION

Development is something that can't be isolated from human existence, in light of the fact that as long as human civilization is as yet progressing, development work will proceed. The advancement of a nation can't be isolated from all types of existing development, the more grounded the development fabricated, the further developed the nation will be. Development is a supporting foundation in all parts of life, regardless of whether as a spot to live, work, entertainment/the travel industry, schooling, business, admittance to transportation, etc. One assessment proposes that a development project is a progression of exercises that are just done once and are for the most part present moment. In this series of exercises there is a cycle that cycles project assets into the consequence of exercises as structures. Moreover, development projects have 3 (three) attributes, to be specific extraordinary, require assets (cash, machines, strategies, and materials), and require association (Ervianto, W.I, 2004).

Something that is a significant part in a development project is the use of word related wellbeing and wellbeing (K3). Since K3 is compulsory in each development project, on the grounds that with K3 it can limit or dispose of the danger of work mishaps that might happen. Work mishaps are occasions that can't be anticipated or anticipated when and how they will happen, however we can expect and ensure word related security and wellbeing (K3) by conforming to different guidelines, laws and guidelines that apply to OSH.

As indicated by the Decree of the Minister of Manpower of the Republic of Indonesia No. Kep. 463/MEN/1993, Occupational Health and Safety is a defensive measure that expects to guarantee that specialists and others in the work environment/organization are consistently protected and solid, and that each wellspring of creation can be utilized securely and productively. Standard gear for word related security and wellbeing in development projects is vital and should be utilized to shield somebody from mishaps or perils that might happen in the development cycle. Given the significance of word related wellbeing and security, all contracting

organizations are needed to give all fundamental Personal Protective Equipment (PPE) for every single working worker (Erviyanto, W.I, 2005).

A few types of individual defensive hardware are standard in development projects and are accessible in plants or the development business. Head protectors and defensive shoes are private defensive hardware that specialists for the most part use to shield themselves from hard articles. In certain businesses, defensive eyewear is required. Complete individual defensive gear assists laborers with ensuring against mishaps and wounds (Charles A. W, 1999). This study expects to decide the degree of use of K3 in the development venture of the the female boarding school of MAN 1 Aceh Barat.

## II. EXPERIMENTAL PROCEDURE

The technique utilized in this exploration is a strategy that joins subjective and quantitative methodologies (blended technique). Subjective strategies are utilized to acquire replies from respondents as words, from surveys appropriated utilizing a Likert Scale. For this situation the word structure being referred to begins from firmly deviate, dissent, deviate, concur, and emphatically concur. Besides, quantitative techniques are utilized to acquire numbers on the poll got from respondents, the number being referred to is the worth of the responses from respondents beginning from values 1,2,3,4 and 5 which are then dissected to get Rcount, Cronbach Alpha, and rate esteems..

### 2.1 Validity test

Legitimacy test is utilized to quantify the legitimacy or legitimacy of an instrument contained in the poll. Coming up next is the legitimacy test recipe :

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

Description :

- $r_{xy}$  = Correlation coefficient between variables X and Y;
- $\sum X$  = The scores obtained from the tested respondents;
- $\sum Y$  = Total score of all items from all respondents tested; and
- $N$  = Many respondents.

The aftereffects of this legitimacy test evaluation are in the event that  $R_{count} > R_{table}$ , the poll question thing is legitimate, as well as the other way around on the off chance that  $R_{count} < R_{table}$ , the survey question thing is invalid (Priyatno, D, 2010).

### 2.2 Reliability Test

Dependability test is utilized to quantify an instrument in the poll which can be supposed to be solid or inconsistent. Here is the equation for the unwavering quality test :

$$r_i = \left[ \frac{k}{k-1} \right] \left[ 1 - \frac{\sum \sigma b^2}{\sigma t^2} \right]$$

Description :

- $r_i$  = Instrument Dependability;
- $k$  = Number of inquiries;
- $\sum \sigma b^2$  = Number of variation things; and
- $\sigma t^2$  = Total variance.

The formula for variation things and total variance is as follows.

$$\sigma b^2 = \frac{\sum x^2 - \frac{(\sum x)^2}{N}}{N}$$

$$\sigma t^2 = \frac{\text{Jumlah kuadrat skor total} - \frac{\text{Jumlah kuadrat skor total}}{N}}{N}$$

Description :

- $\Sigma x^2$  = The sum of the squares of variance for each item; and
- N = Number of respondents.

The aftereffects of the evaluation of this unwavering quality test are in the event that Cronbach Alpha > 0.6, the factors on the poll can be supposed to be dependable, and then again on the off chance that Cronbach Alpha < 0.6, the factors on the survey can be supposed to be inconsistent (Triton, BP, 2005).

### 2.3 Descriptive analysis

An assessment recommends that elucidating research will be research that tries to portray ebb and flow critical thinking in light of information, and furthermore presents information, investigates and deciphers (Narbuko, C dan Achmadi, A, 2004). Engaging investigation gives the (mean) and positioning of every boundary examined, and is introduced in plain structure. Another assessment recommends that the rate clear examination technique is utilized to look at the factors in the review. Enlightening rate can be formed as follows (Sudjana, 2005).

$$P = \frac{F}{N} \times 100 \%$$

Description :

- P = Percentage of answers
- F = Answer frequency
- N = Number of Answers
- 100% = Constant Number

The formula is used to get the percentage number of observations on the assessment of the implementation of K3. Another opinion suggests that the data from each table obtained is easy to analyze, so the data interpretation guidelines are used as shown in Table 1 (Arikunto, S, 2006).

**Table 1. Interval of Data Interpretation / Percentage of OHS Implementation Assessment.**

Interval	Data Interpretation
0%	There is no
1% - 26%	Fraction
27% - 49%	Almost half
50%	half
51 - 75 %	Most of the
76% - 99%	Almost entirely
100%	all

While the standards for carrying out word related wellbeing and wellbeing (K3) according to the Regulation of the Minister of Manpower (Permenaker) Number PER.05/MEN/1996 that the success of implementing the OHS Management System in the workplace is measured as follows:

- a. For the range of achievement of 0-59% implementation and violations of laws and regulations (non-conformance) are subject to legal action.
- b. For the range of achievement of the implementation of 60-84%, certificates and silver flags are given.
- c. For the range of achievement of the implementation of 85-100%, certificates and gold flags are given.

### III. RESULTS AND DISCUSSIONS

#### 3.1 Validity Test

In light of the aftereffects of the information handling on the legitimacy test, it very well may be inferred that all assertions contained in the poll are altogether substantial, that is, all assertions in the survey have a worth of  $R_{count} > R_{table}$ .

#### 3.2 Reliability Test

In view of the consequences of the information handling on the dependability test, it very well may be presumed that every one of the factors contained in the survey are no doubt solid, that is, all factors in the poll have a Conbrach Alpha worth  $> 0.6$ .

#### 3.3 Descriptive Percentage

In view of the aftereffects of the information handling got in the unmistakable examination of rates, the size of the numbers should be visible in the rundown table as follows:

**Table 2. Causes of Work Accidents**

No.	Description	Frequency	Percentage (%)	Rank
<b>Causes of Work Accidents</b>				
1	Workers not wearing PPE	42	84	1
2	Sick Worker Condition	0	0	-
3	Less Skilled Workers	0	0	-
4	Workers Not Obeying Work Instructions	5	10	2
5	Less Experienced Workers	0	0	-
6	Workers Are Not Careful	3	6	3
<b>Amount</b>		50	100	

**Table 3. Type of Accident**

No.	Description	Frequency
<b><i>Type of Accident</i></b>		
1	Hit by Sharp Objects	10
2	Exposed to Steel/Concrete Material	13
3	Struck by Steel/Concrete Circuit	8
4	Pinched	15
5	Falling from a height	1
6	Punctured Steel / Concrete Material	3
<b>Amount</b>		50

**Table 4. Reasons for Workers Not Wearing PPE**

No.	Description	Frequency
<b><i>Reasons for Workers Not Wearing PPE</i></b>		
1	Annoying / Uncomfortable While Working	30
2	Not Provided By The Company	0
3	Insufficient Inventory	3
4	No Sanctions	0
5	Follow Your Worker	9
6	No Danger	8
<b>Amount</b>		50

**Table 5. Consequences of Accidents**

No.	Description	Frequency
<b><u>Consequences of Accidents</u></b>		
1	Not Working Temporarily	6
2	Minor injuries	40
3	Serious Injury	4
4	Temporary Disability	0
5	Permanent Disability	0
6	Die	0
<b>Amount</b>		<b>50</b>

#### IV. CONCLUSION

In view of the aftereffects of examination on Work related Security and Wellbeing (K3) in the development venture of the young ladies' quarters working for the MAN 1 Aceh Barat school, it tends to be closed as follows:

1. The application of occupational safety and health (K3) in the field has not been fully implemented, this can be seen from the number of accidents that occur, where the cause of accidents with a percentage of 84% in the first rank or first rank is that workers do not wear PPE, for reasons of discomfort when work. This means that workers are not fully aware of the importance of K3 in the implementation of every job.
2. From the results of the data obtained, namely the percentage of causes of accidents that occur by 84% with the reason that workers do not wear PPE and is one of the important points in the application of K3, we can conclude that only 16% of the rest apply K3 even though it has an impact on accidents. others are natural and harmless.
3. Based on the conclusion of the point above, the application of K3 to the project in this study is 16%, which is between the range 0-59%, where the criteria for implementing occupational safety and health (K3) are according to the Regulation of the Minister of Manpower (Permenaker) Number PER.05/MEN / 1996 that for the level of achievement of 0-59% implementation and violations of laws and regulations (non-conformance) are subject to legal action.

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