



NEED ANALYSIS RESULTS AND ASSESMENT



KAYA

A New Proactive Training Programme
For Work Safety in High Places





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A NEW PROACTIVE TRAINING PROGRAMME FOR WORK SAFETY IN HIGH PLACES

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Abstract

This paper presents the results and evaluation of Needs Analysis Work Package of the EU Innovation Transfer Project named “A New Proactive Training Programme for Work Safety in High Places (NOFALL)”. The Needs Analysis Questionnaire is composed of three major parts; Knowledge Assessment, Emotion and Attitude Assessment, and Feedback. The questionnaire was implemented on several employees of business fields requiring working at height such as Construction, Electricians, Telecommunication and Mining. The results of the Needs Analysis Questionnaire clearly demonstrate the need for such a project. This article needs to be presented to academic literature as it could detect problems about working at height safety and also reveal the lack of awareness and the need for trainings.

Keywords: NOFALL, falling from heights, occupational safety, work safety;

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1. Introduction

Accidents caused by Falling and Objects Falling from Height comprise approximately 30 % of all recorded industrial accidents. These accidents are the second common, following the first group of industrial accidents which include smashing, stinging or cutting by one or more objects. The issue of occupational safety at height has become even more important during the process of EU membership and also started to pass into law in Turkey. That the accidents and deaths caused by falling from height have been more common in Turkey than EU countries shows how serious the situation is. Developed countries have special laws considering Working at Height Occupational Safety. These clearly specify regulations of Working at Height about Risk Evaluation, training, qualification and equipment.

Many studies have been done on working at height occupational safety. Some of these studies are aimed at pointing at the problem while others are aimed at creating solutions for it. Some studies have displayed the problem and have clearly shown that majority of industrial accidents, primarily in construction industry, occur while working at height. (Türkmen, Şenel, Şam, Üzün, 2005; Dizdar, Toprak, 2012). There are also some other studies that cover measures and suggestions about working at height in different fields. (Görücü, Müngen, 2011; Naalcosh, 2012).

Several projects have been carried out on working at height occupational safety. One of these projects is the B type EU project titled “The Development of Occupational Health and Safety Training Programme”. This project, also the source of NOFALL Project, was done by PSI Darba Medicina Firm of Latvia with the number of LV/04/B/F/PP-172012. The second part of the article introduces the NOFALL (A New Proactive Training Programme for Working at Heights Occupational Safety) Project. Part 3 includes Needs Analysis Work Package Activities and Results. Evaluation part covers the results of the Needs Analysis Survey.

2. A New Proactive Training Programme for Work Safety in High Places (NOFALL)

In December 2011, the Innovation Transfer Project named “A New Proactive Training Programme for Working at Heights Occupational Safety” was started by Centre for European Union Education and Youth Programmes, within Leonardo da Vinci Programme.

The aims and objectives of the project are as follows;

1. Minimize the percentage/rate of accidents of working at height,
2. Prepare training programmes about working at height,
3. Develop educational materials,
4. Provide theoretical education on internet about occupational safety and working at height occupational safety.

8 partners from 4 different countries take part in the project, supervised by Kaya Construction Company. Partners are PSI Darba Medicina from Latvia, EazySafe Learning Center from Ireland, Elmoba from Germany, TEİAŞ, Sakarya University Faculty of Technology, Sakarya Technical and Vocational High School, MEGVEY – a non-governmental organization- from Turkey. The Project contains 8 Work Packages such as Administration,

WEB Site, Needs Analysis, Adaptation, Pilot Application, Product, Evaluation and Spreading. Expected results of the Project are; Turkish, English and German WEB sites where information about the Project will be shared and interactive education will be carried out, Training programme, Book, DVD, e-learning module of General Occupational Safety, e-learning module of working at height occupational safety, magazine of Project results. All these results will also be widespread through posters, brochures, local and national news, meetings and seminars, fairs about occupational health and safety.

3. Needs Analysis Work Package Activities and Results

Innovation transfer projects are based on the principle of improving and applying successfully accomplished projects of EU countries to other countries. NOFALL project aims to improve B type EU Project “The Development of Occupational Health and Safety Training Programme”, with the number of LV/04/B/F/PP-172012, carried out in 2002 by PSI Darba Medicina from Latvia and transfer it to Turkey. For the Needs Analysis Work Package, the third step of the project, first of all the source project LV/04/B/F/PP-172012 (The Development of Occupational Health and Safety Training Programme) and some studies in other countries have been examined. Moreover, a literature review about legislations in our country and in EU countries have been performed.

The objectives of the Needs Analysis Work Package are as follows;

1. Identifying problems about working at height occupational safety,
2. Assess the knowledge of employees on occupational safety equipments and usage,
3. Assess the attitude of employees towards occupational safety measures,
4. Gathering opinions and suggestions of employees about occupational safety.

The needs analysis questionnaire, prepared for these purposes, is composed of three major parts. These are;

- a. Knowledge Assessment part to assess the knowledge of employees on equipments and usage,
- b. Emotion Assessment part to assess the attitude of employees towards occupational safety measures,
- c. Feedback Part to identify the problems and opinions of employees regarding occupational safety measures.

The needs analysis questionnaire was implemented on 120 people, including several employees of business fields requiring working at height such as Construction, Electricians, Telecommunication and Mining, and also lecturers of Sakarya University and teachers of Vocational High Schools. The questionnaire contains 35 questions; 15 multiple choice questions in knowledge assessment part, 15 questions with choices of “Totally Agree, Agree, Don’t Know, Disagree and Totally Disagree” in emotion assessment part and 5 questions in the feedback part where opinions and suggestions of employees are gathered.

The results of the knowledge assessment part are as follows;

- Employees have 70 % of the basic level knowledge.
- One out of four people does not know how to use a portable ladder safely.
- One out of five people in Energy and Telecommunication businesses is not knowledgeable about which equipments to use.
- One out of five people does not know the measures to prevent the risk of falling.
- 55 % of participants do not know the Regulations on Safety and Health Signs.
- One out of three people does not know the safe tying technique.
- 45 % of participants do not know what to do to prevent falling with oscillation.
- Lower level of education brings about a higher level of ignorance. (55 % Primary School, 30 % High School and 22 % University)

Results above are displayed in graphs on Figures 1 and 2.

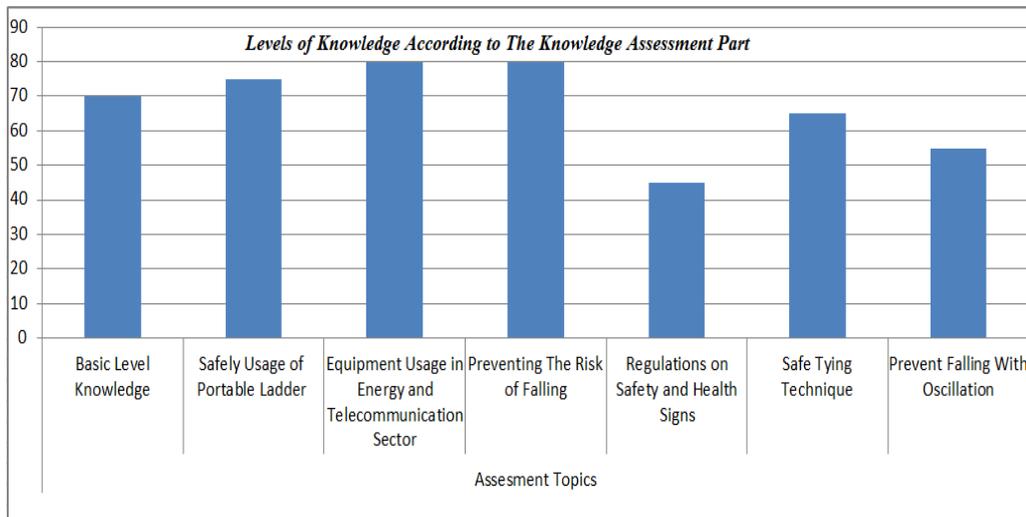


Figure-1. Levels of knowledge according to the knowledge assessment

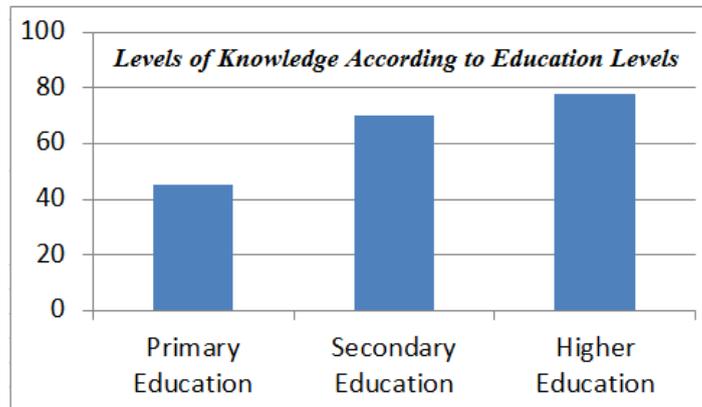


Figure-2. Levels of knowledge according to education levels

The results of the emotion assessment part are as follows;

- One out of four people thinks it is unnecessary for personnel to wear safety belt to climb up high for control in emergency cases.
- One out of three people doesn't think that employers' laxity in enforcing rules may result in accidents.
- One out of two participants believes occupational safety equipments are safe enough.
- One out of two participants does not use equipments as he finds them physically uncomfortable.
- One out of two participants believes additional regulations for working at height occupational safety are needed.
- One out of two participants makes some mistakes while using the equipments.
- Level of awareness is higher in construction business.
- One out of four participants believes that on the job experience is much more important than equipments in preventing falling.

In the feedback part, survey takers focused on usage of strong equipments, more training, more supervision and controls and physical arrangements.

4. Evaluation

The needs analysis questionnaire of EU Innovation Transfer Project titled “A New Proactive Training Programme for Work Safety in High Places” (NOFALL) was implemented on 120 people, including several employees of business fields requiring working at height such as Construction, Electricians, Telecommunication and Mining. The questionnaire is composed of three major parts; Knowledge Assessment, Emotion and Attitude Assessment, and Feedback.

According to the results of Knowledge Assessment, employees do not have 30 % percent of even the basic level knowledge. It is an interesting finding that one out of five people in Energy and Telecommunication fields is not knowledgeable about which equipments to use. One out of five people is not familiar with measures to prevent the risk of falling. Potential risks of falling are very clear from the results that one out of three people does not know the safe tying technique and 45 % of them do not know what to do to prevent falling with oscillation. That 55 % of participants do not know the Regulations on Safety and Health Signs is yet another sign of ignorance on this issue. Furthermore, higher level of education brings about a lower level of ignorance, which demonstrates the need for trainings.

According to the results of Emotion Assessment part, there is great laxity in attitude and emotions of people working at height towards measures of occupational safety. For example, that one out of four people thinks it is unnecessary for personnel to wear safety belt to climb up high in emergency cases results in great risk. One out of three people doesn't think that employers' laxity in enforcing rules may result in accidents, which is a huge defect. One out of two participants doesn't believe occupational safety equipments are safe enough and does not use such equipments as he finds them physically uncomfortable, which is another warning for the high degree of danger.

In the feedback part, survey takers focused on issues like the usage of strong equipments, more training, more supervision and controls and physical arrangements.

The results of Needs Analysis Survey, within NOFALL, reveal the need for such a project. This study is needed as it could detect problems about working at height safety and also reveal the lack of awareness and the need for trainings. A report including data from the questionnaire and results of the data was prepared by Project partner Sakarya University Faculty of Technology. This article was prepared to evaluate the report and present it to academic literature.

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