AN ANALYSIS OF INFORMAL SAFETY TRAINING METHODS TO ENHANCE SAFETY IN THE CONSTRUCTION INDUSTRY OF SRI LANKA

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Declaration

I declare that this is my own work, and this thesis does not incorporate without acknowledgement any material previously submitted for a degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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23.07.2025

G.A.M.W. Amarakoon Date

The above candidate has carried out research for the Master's of Occupational Safety and Health Management under my supervision.

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Professor (Mrs.) Nayanthara De Silva Date

Supervisor

Abstract

The majority of workers in the construction industry are often exposed to risks that might result in lost time injuries (LTI) or fatalities, making it one of the most dangerous industries in the world. Construction worker safety in Sri Lanka is still a major concern, necessitating ongoing advancements in training techniques to lower workplace mishaps. Among different types of training methods, informal training is considered one of the most effective methods. Informal training techniques, including toolbox talks, peer learning, on-the-job mentoring, and experience-based mentoring, are just as important in influencing employees' safety practices as formal safety training programs.

This study aims to evaluate how informal training can improve worker safety in the Sri Lankan construction industry. It focuses on identifying the need for training, studying informal training methods, and assessing how they affect safety performance. The research used a quantitative approach with surveys conducted at selected construction companies. To determine the degree to which informal training affects safety awareness, information has been gathered from site safety managers and senior safety officers. Workers highly praised toolbox talks, peer mentoring, on-the-job demonstrations, and group discussions since these methods raised safety awareness, reinforced workplace behaviours, and decreased incident rate.

The results of this study showed that informal training methods such as toolbox talks, peer mentoring etc. are often more impactful in shaping worker behavior and safety awareness than structured, formal training programs. Further suggestions for improving the informal training, making it more impactful, were proposed, such as the integration of modern technologies, exploring & accessing open knowledge online, live lectures, videos, software, etc.

This study would offer important insights into the advantages of informal training by assessing its contributions to safe system of work practices, and adherence to safety standards in the construction industry in Sri Lanka

Keywords: Informal training, Safe system of work, Lost Time Injuries (LTI), Construction safety, Safety culture.

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

3D	: Three-Dimensional
AR	: Augmented Reality
BIM	: Building Information Modelling
CIDA	: Construction Industry Development Authority
COVID 19	: Corona Virus Disease of 2019
EHS	: Environmental Health and Safety
GDP	: Gross Domestic Production
HIRA	: Hazards Identifications and Risk Assessment
HRD	: Human Resource Development
HSE	: Health, Safety and Environment
HSSE	: Health, Safety, Security and Environment
HSSEC	: Health, Safety, Security, Environment and Compliance
ICTAD	: Institute for Construction Training and Development
ILO	: International Labour Organization
ISO	: International Organization for Standardization
IT	: Information Technology
LLN	: Language, Literacy and Numeracy
LTI	: Lost Time Injury
MS	: Method Statement
OHS	: Occupational Health & Safety
OJT	: On the Job Training
OSHA	: Occupational Health and Safety Administrative
QHSE	: Quality, Health, Safety and Environment
RA	: Risk Assessment
SPSS	: Statistical Package for the Social Sciences
SSW	: Safe System of Work
TBT	: Toolbox Talk
TVEC	: Tertiary and Vocational Education Commission
VR	: Virtual Reality