

Title: **Hazard Perception in University Laboratories**
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Date: September 2020
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Individuals in university laboratories, as well as in industries, are exposed to a different type of chemical hazards during their laboratory performances, Therefore, if hazards are not handled in a correct way, accidents can occur during the experiments.

Risk level might be related to individual hazard perception as this perception influences our safety behaviour and can impact overall laboratory safety. The influence of hazard perception by frequent exposure to same hazards, knowledge and training can lead to overconfidence bias. Negative experiences, such as injuries or accidents, also influence hazard perception. Passive knowledge about accidents, related to exposure to new hazards, can determine different safety behaviour.

Since there is a lack of literature and studies about this topic it seemed necessary to carry out a research in order to provide more information and obtain conclusions that allow to understand how individuals behave in front of all the factors that include working in a laboratory.

This project aims to understand what factors influence hazard perception, how do they influence hazard perception and how personal hazard perception determines safety behaviour.

To carry out the study, there is a research of literature, which consisted in understanding what risk perception and hazard perception were, what shape them and influence them, and an analysis of a survey submitted to students and staff of laboratories from different universities.

Based on the literature and my personal experience of working in the laboratory I made some hypotheses. In order to carry out the experimental part of the project, results from a survey conducted in 2019 among different Universities in Europe were gathered. University of Zürich, EPFL and University of Newcastle were selected.

Instrumentation needed in the study is the survey I mentioned before. This survey consisted of a questionnaire of 44 questions that were open and closed-ended. However, the questions analysed were those with some of these 3 contents: 1. Demographic Data, 2. Perception towards hazards or 3. Safety training.

In this research study we can conclude that the hypotheses formulated could not be corroborated due to the inexistent trend between the three universities that were analysed. Therefore, hazard perception may not be influence by years of working experience in the laboratory, experience with injuries, kind of injuries experienced, safety training nor current experience with injuries.

Nonetheless, the results obtained in the study of University of Newcastle indicated that hazard perception may be influenced by the years of working experience in the laboratory and by the experience with hazards. We can also conclude that safety behaviour may be influenced by the frequency of use of the mandatory PPE in the laboratory.