

# NEW, INNOVATIVE MEASUREMENT TO REDUCE RISK EVENTS AND DAMAGES

The article is a flash report of the partial results of a current research. In the framework of the research, a new meter is being developed by the authors, which opens up new opportunities for analyzing risky work processes and making them more secure. The first results of the research show that more objective and sensitive measurements have been made on self-tapping paper pencil-based tests. It is more difficult to manipulate - and thus a much more useful analytical tool in human security than at this initial stage of research as a traditional questionnaire tool.

## Introduction

In addition to the currently available selection paper and pencil test papers, our company has developed and tested a new innovative measuring instrument as part of an accident safety project. The aim of the R & D project was to create an innovative measuring instrument based on previous national and international research (Radnóti, 2008) (Aluja et al., 2010) and accident prevention theories (Molesworth & Chang, 2009), Nordlöf, 2012) (Rosenbloom, 2002), which can reliably measure the so-called " "Accident risk attitudes". Literature views risk taking, risk taking behavior, attitudes as one of the main causes of workplace accidents. This is primarily formulated on a theoretical plane and there are very few researches empirically trying to detect and influence the existing relationship (see Turner et al 2004, Nordlöf 2012, and Westaby and Lowe, 2005). Vickers and his associates (Vickers, 2005) have also mapped several jobs in the United States Navy research, where they have found that different personalities may have some elementary decisive influence on accidents. Employees with more than one accident were typically more impulsive, more hostile and unfriendly, and less socially active than average - but they were actively looking for thrill and exciting situations. The latter is typically a characteristic of risk-taking people.

## The present state of the research

With our domestic, ongoing research we can partly measure, partially develop, partially shape the risk-taking attitude, which will result in the reduction of unwanted events in the long run. The likelihood of an accident occurring - and the magnitude of accidents - will also be moderated by a development / training. Based on the literature reviews mentioned above, we assumed that there was a relationship between involvement in an accident and risk appetite, so if the latter

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Measurable, predictable for the person concerned the expected rate of accident risk or the future frequency of taking risky situations. During our development, control group experiments were performed. In our experimental group, we selected test subjects who were involved in an accident at their own fault, while the control group was employed by employees who did not suffer an accident

due to their own in the same workplace and working conditions. For both groups, we have developed a special sound analysis questionnaire to measure implicit risk taking attitudes, and we also supplemented with relevant paper-pencil tests. During the research, we investigated whether the process we developed was reliable (reliability); Or whether it really measures the risk assumption (validity)? To confirm this, two validated questionnaires were used (DOSPERT, ZKA-PQ, see (Radnóti, 2008) and (Aluja, 2010).

### **Consequences, Findings**

During our research, we could make the following findings: sound analysis has been reliably and valid on two topics: rule-taking and risk-taking attitudes linked to the use of protective equipment; It was found that the audio analysis program more sensitively measures the above-mentioned areas of risk-taking related to the accident than the questionnaires used. As a consequence of our research, it is important to point out that by using the sound analysis method (LVAi, see (NEMESYSO) or (ANIMA)), both the rule-tracking features and the attitude to the use of protective devices reveal to us a more sensitive and sensitive way of exposing the paper- Based tests to partially take longer to measure, and partly to carry a greater subjectivity (as a result of their self-fulfillment). When answering a pre-programmed questionnaire in voice analysis, we do not evaluate the responses received but the different parameters in the voice. This means that the answers to the questions are not analyzed, but the way they are taught is analyzed - that is, the emotional reactions of our relationship to the topic we are discussing are analyzed. It is, therefore, much more difficult to apply lies, misconceptions or manipulations in such a situation - as in a pre-familiar paper-pencil test. After the response, the software provides instant feedback, automatically analyzes - revealing the current state of risk for mental status and real-world attitudes.

### **Overview, Summary**

Later on, in a comprehensive research, you can test several more specific hazardous jobs, as you can run quick tests to answer a specific set of questions tailored to your specific needs. The queries naturally require both separate analysis (measurement, validation) in order to reveal the risks and emergencies that are well suited to a job. The experience of this research can provide a promising basis in many ways: • in selecting job matching; • periodic reviews; • daily risk assessment (for job-finding in an abused state, eg hazardous jobs, public transport, aviation safety); • sabotage, deliberate job injury screening;

With this in mind, the tool currently under development can become a tool to reduce the impact and frequency of both external and internal damage events (industrial accidents, intentional damage, and damage). Taking such a procedure involves far more potential and potential in security processes and controls than taking up multiple simultaneous paper-pencil tests. Software development and testing do not require any costs as to what may be a negative impact on a risk event, accident, or injury resulting from inattention, fatigue, non-compliance, or intent.

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