TRAINING RESILIENT DECISION-MAKING WITH A SERIOUS GAME: HOW EFFECTIVE IS THIS RESILIENCE INTERVENTION?

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Abstract

The Dutch National Institute for Public Health and the Environment (Dutch acronym: RIVM) developed an intervention to train resilient decision-making to improve occupational safety. It consists of a training using a serious game that aims to contribute to the management of uncertainty in unforeseen, hazardous work situations that are not covered by normal procedures. This training uses a decision dilemma under time pressure that needs to be solved during a role-playing game. The game consists of multiple elements, for example Storycards with a resilience vocabulary, a Storyboard and resilience safety quadrants. To evaluate the effectiveness of this safety intervention, a pilot study was undertaken in five Dutch organizations. Kirkpatrick's theoretical framework, more specific the first two levels (reaction and leaning), was used to evaluate the training. Teams working within these organizations (in total 38 employees) participated by playing the serious game supervised by game trainers. The effectiveness measurement consisted of three parts: a questionnaire, a participant-generated word list and observations carried out by the researcher. The participants filled out the questionnaire both before and after the training. The questions covered a number of topics, for instance the participants' general attitude towards serious games and learning effects they attribute to the resilience training. The participants were also asked to write down words they associate with safety in unexpected and unforeseen situations, both before and after the training. Based on the first measurable results of this effectiveness evaluation, it is concluded that the training with the resilience serious game was positively assessed by the participants and that it contributes to their understanding about resilience. The observations served as input to further develop the game (materials) and implement the training into Dutch organizations.