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Indicators for Successful Learning in Air Traffic Control Training

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Abstract

Air Traffic Control (ATC) is a cognitive complex job. To access Air Traffic Control (ATC) training, a selection procedure takes place. This selection increases the chances of trainees reaching the high standards at the end of the training. Nevertheless, still a large number of trainees drops out. To improve trainees learning skills, in this study indicators for successful learning in ATC training have been examined; based on focus group meetings with ATC training experts, ATC trainers, and ATC trainees, indicators for successful learning were formulated. Results show that both the experts and trainers identify *setting own learning goals*, *identifying own human and material resources*, and *self-efficacy* as important indicators for successful learning. The trainees, however, identified *the ability to adjust task performance and the orientation on task performance* as important indicators for successful learning in ATC training. Overall, a significant agreement was found between the rankings of all three focus groups. This resulted in a ranking of most important indicators in ATC training by each group. The ranking of the experts and trainers correlated significantly, whereas no correlation was found between the trainee group and any of the other groups. Differences and similarities in agreement between groups are discussed. In addition guidelines for instructional design are formulated in which optimal trainee involvement in individual ATC competence development is discussed.

Keywords: learning skills, self-directed learning, self-regulated learning, air traffic control, indicators for successful learning.