


# Chapter 30

## An Adult–Learner Approach to the Learning Design of Safety Management System Training in Aviation

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### ABSTRACT

*The goal of training is to improve employee performance, and ultimately support organizational success. However, training does not always effectively transfer to workplaces to positively affect work practices, particularly because of disconnect between behaviourist approaches and contemporary work arrangements. The transfer of training to the workplace remains problematic. The present article is motivated by the need to challenge the status quo of training design and draw greater attention to learning design, beyond the confines of behaviourism. The aim of the article is to provoke critical discussion around learning theories and training design. We propose Knowles' adult learning principles and Mezirow's transformative learning theory, useful guide for the learning design of training. The learning design of a university-based safety management systems training course in aviation is discussed from the vantage point of the proposed guiding philosophy. Six specific strategies are presented supported by the evaluation of the course effectiveness conducted after the first iteration.*

### INTRODUCTION

'Training' is an organization-centric concept. The purpose of training employees is to improve their work performance, thereby enabling the success of the organization (Antonacopoulou, 1999). Transfer

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of training refers to perceived changes in workplace behaviours and attitudes resulted from the employee engagement in the training (Velada & Caetano, 2007). However, training does not always transfer to work to influence work performance. Or if it does, the transfer is so poor that it makes little impact on the job, and organizations do not receive the return on investment. In some domains, such as high-risk industries, the consequences of training not transferring to work are potentially much more devastating than simply the lack of return on investment. In the 31 years since Baldwin and Ford (1988) published the seminal paper on transfer of training, researches have shed some light on the factors influencing training transfer, but it remains poorly understood, highly problematic and hence continues to attract considerable research attention.

One important question pertinent to understanding the transfer of training, is, “how much of the training ‘sticks’, and translates into the desired workplace activity over the long term?” Evidence from existing literature is that the skills, knowledge, and attitudes targeted in training have less than ideal rates of transfer to the workplace (Saks et al., 2014; Velada & Caetano, 2007). Some researchers have proposed figures as low as 20% rate of transfer of training to the workplace (Wesley & Latham, 2002). Additionally, there is evidence that the extent of training transfer to the workplace tends to decay over time. As time since training increases, the manifestation of the training in the workplace decreases (Wesley & Latham, 2002). Despite significant focus on the provision of training, organizations report many cases of failure of training to develop desired skills in the workplace (Grossman & Salas, 2011). Employee performance has great impact on organizational success. Therefore, organizations tend to make large investments into training their employees. It is thus unsurprising to find much research effort is expended to identify factors influencing transfer of training, and to understand interactions among those factors. The centrality of the employee’s performance to organizational success, and the supposed role of training in increasing it, spurs much research into identifying what influences the transfer of training.

A large variety of factors are identified as influencing the transfer of training, some of which are more easily controlled than others. Training design is frequently identified as a significant factor influencing the transfer of training and it is one of the most easily actionable. Training design is explored in the literature but conceptualizations of what constitutes training design are anchored to elements such as content, length, and age variance (Lim, 2000). The bulk of research into training design excludes learning design and the discussion of teaching methodologies and learning theory. For example, Mikami and Furukawa (2018) explore conditions for successful knowledge transfer in development aid training programs, but only consider training contents, length, class size, within-class sex ratio, age variance and nationality fractionalization as training design factors.

The ‘default’ theoretical basis of learning design of training is behaviorism. At a time when most work requires much more than skill-based, routine tasks, we posit that the learning design of training should not be dominated by behaviorism. There is evidence of training effectiveness with the current approaches, but the problem of training transfer steadfastly remains unsolved (Saks et al., 2014).

Transfer of training is a complex phenomenon. To keep exploring the learning design of training by stretching behaviourism will not ‘solve the problem’ since training is about learning and not just behaviour change. We know that training design influences training transfer but the ‘learning design of training is under-emphasized. It is therefore reasonable to suggest that some inroad into the problem of transfer of training can be made by expanding understanding of how learning theories, aside from (or together with) behaviourism, may produce learning designs for training that more effectively transfers to the workplace.

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