

Abstract

Action Research (AR) is a scientific methodology whereby researchers participate in a research setting for data collection and problem resolution. Aviation researchers experience first-hand challenges in process cognition, data collection, and selection of implementation strategies. The AR think-path, or the "Look-Think-Act" loop, has been utilized in the qualitative research discipline for decades. Yet the merits of AR remain under-utilized by airport safety practitioners. The purpose of this study is to introduce AR for the development of a functional safety management system (SMS) to support airport safety education. Using documentary research, this paper reviews the process of AR and identifies a detailed set of methodological procedures in support of the recently published FAA's Advanced Notice of Proposed Rule Making, FAA Order 1110.152, for the implementation of SMS. This study provides a tool to integrate ongoing airport safety programs which will benefit airport management and current aviation students. The core SMS safety analysis process and the Policy Research Construct (PRC) {ref} are supportive to the AR methodology along with the adoption of a proposed Aviation Safety Management Model (ASMM). The application of this study contributes a valuable research methodology to support airport managers and safety educators.