

Abstract

Current Practices and Future Trends in Aviation (DAV 735)—one of 19 online courses in the Ph.D. in Aviation program at Embry-Riddle Aeronautical University—has run five times since 2011. A team of one instructional designer and one professor were responsible for its initial design, development, and ongoing improvement. This continuity provided the opportunity for a longitudinal, descriptive case study reporting on three wicked instructional design challenges: (a) doctoral student body comprised largely of multidisciplinary aviation professionals, (b) no seminal textbook on the course topics, and (c) unforeseen usability problems with Internet technologies. This case analysis has significance because of the lack of literature reporting on the practices of instructional design teams in terms of how theories are applied. An adapted three-phase design model and the backward design model informed the initial design and ongoing improvement of the course. This approach was successful in addressing needs of the users and was instrumental in the course receiving a Blackboard® Catalyst Exemplary Course award in 2014. Recommendations include: (a) adopting an iterative and collaborative course development and improvement process, (b) using problem-based learning, and (c) empowering students to both define and enhance their learning. Use of a template-based production process, reliance on post-course perceptions to inform major improvements, and lack of generalizability when student enrollments or feedback are limited led to questions as to whether the models need to be extended or elaborated.