

Chapter 8

Blended Learning for Critical Thinking Skill Training

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ABSTRACT

The purpose of this chapter is to describe an instructional approach that was successfully used for making blended learning decisions for a variety of federal government agencies in order to improve critical thinking skills. The intended audiences comprised adult learners who were operational personnel that required training on new systems to be able to use them to assist in making decisions requiring the application of critical thinking ability. The value of this rationale is its universal applicability because it is not restricted to typical considerations of the logistics of the learning environment, program costs, or training schedule as are most other delivery media determinations. In this regard, it is a collaborative choice based on learner requirements, learning type, and learning environment, rather than institutional need. Additionally, it provides a methodology for matching these considerations to a proper blended learning component mix based on considerations of required level of student comprehension, the nature of the content to be absorbed, and the required proficiency level of the learner.

INTRODUCTION

The Christensen Institute (2015, p.1) defined blended learning (BL) as a “formal education program in which a student learns: at least in part through online learning, with some element of student control over time, place, path, and/or pace, at least in part in a supervised brick-and-mortar location away from home; and the modalities along each student’s learning path within a course or subject are connected to provide an integrated learning experience.”

The key part of this definition relative to recommendations of a blended learning solution is “modalities along the learning path that are connected to others.” The value of mixing modalities is increased when the choice is based on the characteristics of the learner, the instruction, and the learning environment. Often, however, these factors do not contribute to the decision.

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BACKGROUND

For an example, in a review of the research literature for creating blended learning environments, Bonk & Graham (2006, p. 6) identified the following six reasons for using BL:

1. Pedagogical richness
2. Access to knowledge
3. Social interaction
4. Personal agency
5. Cost-effectiveness
6. Ease of revision

None of these reasons are aimed at improving the learning environment. Further, in separate studies, Graham & Dziuban (2007, p.271) found that, by a greater majority, BL was implemented for the reasons of “(1) improved pedagogy, (2) increased access and flexibility, and (3) increased cost-effectiveness.” In fact, most cases for using a blended learning approach to instruction are based on logistics factors such as these or the advantage of using technology to improve instructional effectiveness in the classroom. Missing from these implementation decisions is characteristics of the learner or the instruction.

Granted, the logistics of using BL often results in an in the ability to move students toward the higher levels of learning, that is, the students can learn the bulk of the foundational knowledge and its applications at home, then work on more project-based activities in the classroom. Cruz (2016) reminds us that the most important factor in a blended learning solution is to keep the focus on the learning and not the technology and to strive for learning at the higher levels of Bloom’s Taxonomy. When the focus is only on the technology, the learning is simply a dressed-up version (and more expensive) of the same style of learning that was employed previously. A learning- requirement focused type of mixed presentation has shown to result in deeper learning at the analysis, evaluation, and creation levels, objectives at higher levels of complexity in Bloom’s taxonomy.

It is encouraging to see that a blended-learning model has often been chosen to enhance learning. However, what has not been considered is the nature and type of leaning that is attempting to be enhanced and the needs of the target audience, both of which should be major factors in any learning strategy decision. It is important to concentrate on these elements of the learning environment if we desire that or students achieve levels of independent thinking, an important milestone toward the achievement of independent critical thinking. Specifically, regarding higher- level objectives, the goal is to ensure instructional designs provide opportunities for analysis, synthesis, and evaluation. (See skills required for attainment of these levels in Figure 1).

MAIN FOCUS OF THIS CHAPTER

As can be seen in Figure 1, critical thinking skills involve the ability to make comparisons and contrasts of relevant data to determine that which is most cogent (Analyze) discover trends to make predictions (Understand), and to construct criteria for evaluating useful information (Evaluate). This chapter will attempt to provide guidance to derive BL solutions to foster these skills for job training.

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