

Chapter 7

A Case Study on Using Discovery Learning within a Learning Management System: Axio Learning™

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ABSTRACT

To better illustrate how an online learning environment can be used as scaffolding for the purposes of Discovery Learning, the learning management system (LMS) known as Axio Learning was reviewed and evaluated. Axio Learning, developed from the ground up by Kansas State University (student population of about 25,000) since 1997, is a modern, full-featured learning/course management system.

INTRODUCTION

The utilization of an LMS such as Axio Learning (known as K-State Online on the Kansas State University campus) is a valuable component in maximizing the uses and success of Discovery Learning. The tools and capabilities within such an LMS will aid Discovery Learning with regards to pacing, sequencing, empowerment of the learner, decision supports, learner community creation, as well as addressing various issues such as learning styles (presentation modes), accessibility, usability, tracking, and anxiety mitigation (Hai-Jew, 2008). Additionally the LMS scaffolding will

provide ample tools for use as strategic guidance in enhancing the use of Discovery Learning as an exemplar method of instruction, that is using specific guidance when needed and necessary in order to maximize learning and understanding (Lavine, 2005).

The following shows how different tools found within the Axio Learning LMS can be used to enhance Discovery Learning. Scott Finkeldei, assistant director for the Office of Mediated Education at Kansas State University, was asked to provide technical descriptions of the many tools within the Axio Learning LMS (Finkeldei, 2011). Finkeldei has been directly involved with the development and implementation of this LMS within the Kansas State University learning community

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since its inception. He explains that the tools were developed from feedback from both instructors and students and designed to be as easy to use as possible so as to assist in interaction and comprehension of presented material. A major effort was made so that the tools themselves would not be a distracter and could be quickly and easily used so as to minimize any acclimation that would need to accrue within the LMS learning environment/community. Additionally being able to easily use the tools and quickly seeing/understanding the value in them would allow for greater self-efficacy to both student and instructor.

Each of the following tools are described with regards to its general functionality and then possibilities are presented on how it could be used as effective scaffolding for various Discovery Learning pedagogical endeavors.

LMS TOOLS FOR DISCOVERY LEARNING

Although the Axio Learning LMS has many tools, this document will focus on the tools: Announcements, File Management Tools, Gating Tool, Interactive Tools, Student Grouping, Assessment Suite, Course Statistics and Recent Activity (see

Figure 1). Information is presented in this order as a logical student progression through an online Discovery Learning course. These tools have great possibilities for use as scaffolding and guidance manipulators with regards to Discovery Learning.

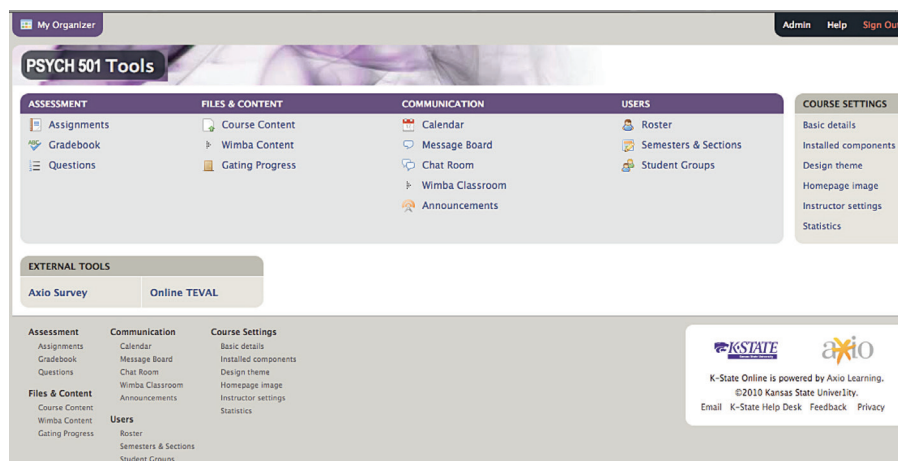
Announcements

This tool allows the instructor to post and edit text or audio course announcements. These are displayed on the course homepage, can have publish and expire dates and can be archived to a student-viewable archive. This is used mostly for important course-level communication and announcements. Some instructors use it to announce and describe assignments (see Figure 2).

Discovery Learning Usage

Guidance and motivational expressions would be great uses for this type of tool. Personalized messages (text and audio) for the class can go a long way to aid students in real community building in general and Discovery Learning group work specifically. Offering special guiding instructions that are new and current also aid in the motivational aspect of the learning being current and relevant.

Figure 1. Instructor view of tools interface



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