

Running Head: LMS MOODLE PROPOSAL

Learning Management System Selection: MOODLE

Erin Gillespie

ETEC 565

University of British Columbia

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## Project Objectives

- **Goal:** initiate e-learning program in upper elementary (grades 4-6; population=45) by developing functioning blended delivery classroom opportunities through use of the open source Moodle learning management system (LMS) within two years.
- **Objectives within goal:** overall pedagogical gains for the English language learning (ELL) program due to increased exposure to English use. This may attract new students and increase student enrolment levels resulting in capital gain within five years.
- **Strategy:** Develop sustainable blended learning delivery opportunities (face to face with e-learning) through an open source learning management system (LMS).

Moodle is an open source LMS, software used to plan, deliver, and manage learning in a school, which includes an online virtual classroom and courses led by the instructor (Learning management, n.d.; Moodle, n.d.). To project objectives, it is proposed that Moodle be installed as the schools LMS. Current instructional technology (IT) support staff can liaise with teachers to ensure enrolment procedures and space allocations are functional. IT must transfer current class website data and student/teacher information to Moodle. Initial professional development must focus on IT training and teacher training. A project management approach is suggested to decide on key areas of investment, resource allocation, identify existing technology support and to ensure the focus remains the English learning environment (Bates, 2000).

## Selection of Moodle

Traditionally licensed LMS systems can be extremely costly, with WebCT costing into the hundreds of thousands (Wagstaff, 2009). The goal is not focused on economic gain, and our school would not see a return on investment if a licensed LMS was purchased. Cost, Teaching

and Learning and Ease of Use are three major areas of Bates & Poole's (2003) SECTIONS model that support a decision to implement Moodle. Moodle is open source under the GNU Public licensing, meaning it is free to use, adapt and modify to suit our needs (Moodle License, n.d). I explored a demo Moodle and found its interface and icons very novice/ELL friendly.

The open source LMS of Moodle, Clairoline and Sakai were compared using Edutools, The Business Readiness Rating™ (although still in its *request for comments* stage) and a needs-based rubric (Bronk, Del Mundo, Gillespie, Jung & Wood., 2009; Ronsen, Z , n.d.). The key elements analysed include student record management, tools for assessment, communications tools, costs, system requirements, ease of use, security and constructive teaching/learning opportunities. Moodle most clearly suited the needs of this project by having the strongest security, online support systems and communities, a variety of tools suitable for beginners and a user-friendly intuitive interface.

### **Intended Outcomes**

The intended outcomes are based on Bates & Poole's (2003) SECTIONS model and implications of Chickering & Ehrmann's (1996) principles of good teaching practices in undergraduate education. In addition, the International Bacclaureate's Primary Years Program (2009) curriculum is considered. It is proposed that within 1-2 years of Moodle adoption:

1. Teachers will teach English material using a constructivist approach and gain technological skills to meet the needs of the Tapscott's (2004) Net Generation. Teachers do not become novices online but they need time to adapt to technology supported learning (Kelly, 2007).

2. English language learners will engage in inquiry-based learning opportunities in a meaningful way and gain technological skills that can transfer to areas outside of the classroom. (International Bacclaureate, 2002).
3. The school will offer varied learning opportunities for students while fostering a sense of community. The school will remain competitive in the private elementary sector through the use of innovative and modern approaches to educational technology and ELL.
4. Technical requirements and training will be sustainable for three to five years. Moodle will be implemented in grades 4, 5 and 6 and will be sustained through staff training, current levels of IT staffing and the creation of a Moodle fund.
5. The creation of a modest LMS fund to secure the sustainability of Moodle for 3-5 years.

## **Rationale**

The timeline is supported by Bates (2000) project management approach directed for long term technological change. Objectives 1-3 are supported by research on English language learning and technology integration. Social software, like wikis available through Moodle, enable students to generate knowledge in a shared and openly collaborative space (Wheeler, Yeomans & Wheeler, 2008). Wu (2005; 2006) and Cummings (2004) argue English language students benefit from the innovative incorporation of technology in the classroom. It has been argued that the artificial constructs of interaction in an LMS limit discovery and constructivist learning (Siemens, 2004). However, Moodle supports constructivist modular growth through its various applications (Chavan & Pavri, 2004).

Objectives four and five require minimum technical requirements at start-up. Moodle can run on the school's server due to its Linux/Apache/MySQL/PHP platform (Chavan & Pavri, 2004). Hardware includes approximately 400 MB-1GB of free disc space for installation and course materials, which is currently available. It is requested that the school consider the purchase of a back-up server as teachers develop more content. This would cost approximately \$1200-\$2000 (CDN) from licensed suppliers. NetSpot is a Moodle Partner in Hong Kong for outsourced support. Sustainability may require contracting NetSpot in the future if student numbers increase. Considering IT support, in-house staff training and server maintenance, a budget of approximately \$5,000 (CDN) is requested for the first year of development.

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