Assignment Four

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Overview

The incorporation of Learning Management Systems (LMS) into the public education system provides educators with the opportunity to create dynamic online learning environments that support what is happening in the classroom. A goal of any system of this nature is to move away from the lecture-type classroom setting supported by workbooks, paper, and pencil and to move onto a blended learning environment. All technology-based additions to the current classroom environment need to be aligned the mission of providing the students with the 21st Century Skills imperative to be college and career ready. It is important for LMS's to be adaptable, user-friendly, interactive systems that support metacognitive skill enhancement (Kruger, Inman, Ding, Zang, Kuna, Liu, Lu, Oro, and Wang, 2015).

The district's current use of a blended and interactive learning environment to address the needs of the students was the foundation for the adoption of a LMS. Implementation of this type of innovative incentive needs to be embraced by all stakeholders in the district to become effectively integrated into the learning environment. LMS's provide a centralized medium for recordkeeping, planning, instruction, and assessment which are central to supporting students in an educational setting. Communication, general data administration, and school personnel information are seen as major components of the management and administrative duties of educational sites (Yildirim, Reigeluth, Kwon, Kageto, and Shao, 2014). Through an examination of the research and the evaluation of various LMS's, the Belleville township's decision was for the district-wide implementation of the LMS, Moodle.

With the integration of technologies that foster greater interactions between all stakeholders, it is important to note that the successful incorporation of technology into the educational setting should never be solely based on the accessibility or convenience of the technology but more importantly on the pedagogical application of the technology (Paily, 2013). Lev Vygotsky's social constructivist pedagogy is based on collaboration and social interactions to foster learning. These collaborations and interactions do take place in the classroom. The inclusion of a LMS expands on these aspects of opportunities for learning increasing the opportunities for problem-solving and critical-thinking.

Moodle, which is aligned with the the social constructivist pedagogy, is a free online system which allows educators to develop websites that enhance and support coursework. It provides students with the opportunity to engage in self-directed learning. Moodle supports collaboration between stakeholders, tracks progress, and keeps learners alerted to their academic responsibilities. The Belleville township school district will continue to support the full-inclusion of the LMS system.

Moodle Features: The following are some of the features of Moodle that were important to the selection of this LMS by the district (Moodle, n.d.).

- Course Management
- Easy to Use Interface
- Personalized Dashboard
- Collaborative Tools
- File Management
- Intuitive Text Editing
- Notification System
- Progress Tracking
- Accessibility for All Learners Supports
- Mobile App Features

Why is there a resistance to Moodle? Ways to Overcome fears to Moodle.

In 2015 - 2016, the school district rolled out Moodle as its new and innovative Learning Management System in all classrooms throughout the district. Teacher evaluations showed that teachers have not adopted the technology in their classroom and are reliant on previous methods of teaching. Data collected through administrator observations and teacher surveys suggest that this lack of adoption and use of the system relates to user negativity biases and perception of the technology system.

Studies show that humans tend to have a higher capacity to remember and focus on negative experiences, rather than positive experiences. This phenomenon affects future experiences and attitudes towards technology (William, 2014). Studies also suggest that it is likely that a human's belief about technology changes as time progresses. Studies using the technology acceptance model (TAM) and other models show that user perception and attitudes are key determinants to technology use (acceptance) and long-term use (continuance) (Bhattacherjee, 2004). Bhattacherjee's acceptance-discontinuance anomaly theory describes how changing human beliefs and behaviors towards technology undermine an organization's efforts to exploit the full potential of technology.

Numerous studies have been carried out to examine and explain the effects of the negativity bias theory in the field of technology. Negativity bias is the tendency for humans to pay more attention or give more weight to negative experiences over neutral or positive experiences. Even when negative experiences are inconsequential, humans tend to focus on the negative aspect of an experience more than the positive (Loranger, 2016). Studies show that negativity bias can manifest itself in many forms, such as user's experience on a website, attitudes towards instructional practices, and beliefs about technology. Surveys and observations show that teachers within the district have experienced negative experiences with technology. Teachers lack of use and adoption may be a manifestation negativity experiences.

The tendency for human beliefs and behaviors towards technology to change over time, teamed with higher capacities to focus on negative experiences, suggests that humans are generally less likely to adopt or use new technology. When this occurs in the classroom, the potential for technology to improve engagement, increase student achievement, and provide high return on investment is significantly reduced. If this theory holds true, teachers who have

negative biases toward technology are less likely to adopt and more likely to discontinue use of technology in the classroom. Teacher biases (positive and negative) presence a significant area of focus as it pertains to technology implementation, as teachers are key drivers for effective use of technology in the classroom.

Overall, teachers within the district tend to be fearful of technology in the classroom which impacts future use. This fear can be attributed to a lack of understanding, perceived usefulness, and perceived ease-of-use of the technology system. To combat these attributes, instructional and technology administrators have determined that teachers lack positive exposure to technology and sufficient hours of professional development to improve perceived usefulness, perceived ease of use, and technology adoption.

What skills and knowledge do you want them to leave with?

Understanding that all educators, administrators, and staff possess varying levels of technology skills and knowledge, professional development will be designed to meet the needs and levels of all stakeholders. The following section is designed to combat the negative perceptions, understanding, and apprehension to improve future adoption and use of Moodle throughout the district. Professional development will also be designed to ensure acquisition of skills and knowledge specific to the role of educators, staff, and administrators.

After completing the professional development trainings, the participants will be able to perform the following Moodle Instructor Basics: 1) Logging into Moodle, 2) Adding Course Information, 3) Adding Resources, 4) Adding Activities, 5) Creating your Gradebook, and 6) Making your Course Available to Students. Below is the guide with videos depicting Steps 1-6.

Overview

This guide provides resources and instructions on how to use Moodle, the school district's learning management system.

All instructors teaching within the district must include the following on their Moodle classes:

- Syllabus
- School Calendar
- Course Assignments and Due Dates
- Contacts and Support
- Student Resource Page Web link
- Gradebook

If you need help, please email dl-information@schooldistrict.edu, or stop by Distance Learning department located in the Central Office.

Getting Started

Playlist: https://www.youtube.com/playlist?list=PLBqm9x00hCqSdgpei0czjSFeEYr-UlxzJ

Step One: Log into Moodle

1. Go to your school's webpage and click on the Moodle logo.
2. Type in your School District username that you use for accessing your School District email
3. Type in your School District password
4. Click on the Log in button
5. Once you enter into Moodle, you will be located on the Moodle home page
6. Scroll down the page to locate My Courses. Under My Courses, you will locate all the courses you are scheduled to teach for the semester.

Step One: https://youtu.be/Eq1qNek8odQ

Step Two: Add Course Information

1. Before adding or editing content in your course, you will need to click on the Turn Editing On button located at the top right hand corner.
2. The top two topics, Welcome to Class! And School Resources are required for each course. Do not delete information within the topics. Only add your course title, syllabus, course assignments and due dates, and contact information in the Welcome to Class topic.

Step Two: https://youtu.be/ob2qLdyt7CQ

Step Three: Add Resources

Resources in Moodle can be used by instructors to add a book (multi-page resource in a book-like format), file (add a PDF document, Microsoft Word document, PowerPoint Presentation), folder (enables an instructor to display a number of related files inside a single folder), page (enables an instructor to create a web page resource) or URL(enables an instructor to provide a web link as a course resource).

1. Click on Turn Editing On button
2. Scroll to the particular topic you would like to add an assignment
3. Select Add an Activity or Resource. Then select the resource and click on the Add button.

Step Three: https://youtu.be/R_D2Y9LFRD8

Step Four: Add Activities

Activities in Moodle can be used by instructors to add a quiz (enables an instructor to create a quiz comprising of multiple choice, matching, short-answer and/or numerical), assignment (enables an instructor to communicate tasks, collect work and provide grades and feedback), forum (enables participants to have asynchronous discussions), etc..

1. Click on the Turn Editing On button
2. Scroll to the particular topic you would like to add an assignment
3. Select Add an Activity or Resource. Then select the activity and click on the Add button.

Step Four: https://youtu.be/gHm_TZrDVUU

Step Five: Create and Managing your Gradebook

School District instructors are required to maintain an updated gradebook in Moodle reflecting all graded assignments. An instructor needs to determine his/her grade scale such as points or weighted. Once the instructor has determined his/her grading scale, the instructor can create his/her gradebook.

Step Five: https://youtu.be/ej8_oJY7iZs

Step Six: Make your Course Available to Students

This process is automated; however, you need to verify that the class is available.

1. Within your class, click on the Menu button, located at the top left hand corner.
2. Under Course Administration, click on Edit Settings
3. Make sure within the General Topics, Visible states Show
4. Click on Save Changes to finish

Step Six - https://youtu.be/k2f5piMZLjs

Step Seven: For Administration and IT Staff
Administration and IT staff will be given a detail professional workshop on the management of Steps One - Step Six such as managing the gradebook, running activity reports, running student reports, and observing teachers' online classrooms.

How will the school district organize training for this large group (teachers, librarians, administrators, and other stakeholders)? How and where will the training be delivered?

Successful implementation of Moodle will require the district to address known issues or barriers to use and adoption as previously noted. Within a quantitative study relating student use of LMS, Nasser, Cherif, and Romanowski (2011) identified teacher attitudes as a major factor to student use. The authors further acknowledge past research points to teachers lack of training on the use of technology or inadequate professional development as hindering the adoption of new programs (p.41). Teachers confidence in their ability to be effective users has also been shown to be prohibitive to their designing and adoption of new instructional technologies and pedagogical strategies (Power, Cristol, Gimbert, Bartoletti, and Kilgore, 2016).

The need for effective training on the use of Moodle is not limited to classroom instructors and students, but must encompass all stakeholders in the educational community. Librarians in today's K-12 environment have a major role in the instructional process. Macnaughton and Medinsky (2015) suggest that for the school library to continue to deliver quality learner-centered service in the constantly changing environment; effective ongoing staff training and staff professional development are essential (p.1).

Voogt, Laferrière, Breuleux, Itow, Hickey, and Mckenney, (2015, p. 260) describe the need for professional development built on a "collaborative design, teachers create new or adapt existing curricular materials in teams to comply with the intentions of the curriculum designers and with the realities of their context." As teachers aren't the only stakeholders of the LMS system in Belleville Township school district, there is a need for more than one form of

professional development (PD). Shakeshaft, Becker, Mann, Reardon, and Robinson (2013) describe the use of authentic learning and constructivist theory as described by Dewey (1938), Papert (1991) and Vygotsky (1978) as demonstrated through video simulation-based video scenarios a valuable way of gaining experience for administrators. Along with traditional face-to-face PD activities, the use of social media has gained a presences in the realm of PD options. Forming a learning community online, a community of practice which Alexandra Samuel in her 2016 article for the Washington Post Review defined as "a group of fellow professionals in your field, sharing the inside scoop or best practices with one another" can offer the option of continuous PD to all stakeholders in the school system accessing the LMS.

The Belleville Township school district has designed the following professional development plan to enhance the successful integration of the Moodle LMS:

- District /Building Administrators- to increase district and building administrators use of the Moodle system in order to streamline management of staff, students, and the duties related to the business of school leadership.
    - Through the addition of a video conferencing plug in, utilize the web conferencing ability of Moodle to discuss implementation and troubleshoot barriers to the use of the LMS. Develop an online community to continue the discussions outside the monthly meetup.
- Teachers/Librarians- to better incorporate Moodle to design, implement and utilize the LMS for learner-centered instruction, classroom management, collaboration and communication with other stakeholders in the student's' education.
    - Weekly rotational department meetings will be led by building designated personnel. The development of instructional and managerial activities will be the

focus of groups designed within the social learning communities. Selecting to carry over the learning through developing social media connections with the group meet - up features that are designed with in the Moodle landscape. As social media takes on a large role in PD options for teachers, joining an established Twitter community maybe an added source of training.

- ❑ Student/ Caregivers- to increase the use of Moodle, students and their caregivers will be provided with gamified learning activities that are accessible at the beginning of each semester and throughout for review. The game design will allow users to experience the different features of Moodle.

Professional Development Agenda

Date: August XX, 2017 (During Pre-Service Week)

- 8:00 am - 8:30 am: Superintendent - Welcome the Participants
- 8:30 am - 8: 40 am: Principal Remarks / Introduces the Guest Speaker
- 8:45 am - 9:30 am: Guest Speaker - Meredith Moore, Instructional Designer
- Break 15 min
- 9:45 am - 10:25 am: Session One
    - Adding Activities and Resources
- 10:30 am - 11:10 am: Session Two
    - Grade Book
- 11:15 am - 11:55 am: Session Three
    - Instructional Design
- 12:00 pm - 12:55 pm: Lunch
- 1:00 pm - 1:40 pm: Session Four
    - Parental Mode
- 1:45 pm - 2:25 pm: Session Five
    - Professional Learning Communities
- 2:30 pm - 3:10 pm: Session Six
    - Course Information

Date: August XX, 2017 (During Pre-Service Week)

- 8:30 am - 8:40 am: Principal Remarks / Introduces the Guest Speaker
- 9:00 am - 9:30 am: Guest Speaker - Dowayne Davis, School Business Administrator
- Break 15 min
- 9:45 am - 10:25 am: Session One
    - Administration and IT management
    - Teacher and Staff Networking Session
    - Media Specialist Networking Session
- 10:30 am - 11:10 am: Session Two
    - Administration and IT management
    - Teacher and Staff Networking Session
    - Media Specialist Networking Session
- 11:15 am - 11:55 am: Session Three
    - Professional Learning Communities
- 12:00 pm - 12:55 pm: Lunch
- 1:00 pm - 1:40 pm: Session Four
    - Gamification
- 1:45 pm - 2:25 pm: Session Five
    - Instructional Design
- 2:30 pm - 3:10 pm: Session Six
    - Social Media

Google Sites

To provide all stakeholders with access to training resources and materials, a Moodle training site was created. The site was created to provide an overview, statement of the problem, training materials, resources, participant survey, and course evaluation materials. The Moodle training site can be found here - **Link**

Annotated Bibliography

Alambda Solutions. (2016) What is Moodle LMS & Why is it the World's Best LMS? Retrieved from http://www.lambdasolutions.net/resources/the-complete-moodle-user-guide/an introduction-to-moodle/

This resource explains what Moodle is and compares it to other popular learning management systems. This resources provides individuals with a broad overview of Moodle.

Amy Alexander. (n.d.) Flipping your Classroom with Moodle. *O.S. Online Studies*. Retrieved from http://moodle.oakland.k12.mi.us/os/course/view.php?id=1361

With the integration of Moodle, teachers can assess the concept of flipping the classroom. "The course covers the best practices for course design, online instruction, and online assessments as well as the technical skills needed to place course material online in Moodle" (Alexander, n.d.).

Hettinger, Bill. (2015 January 26). Which Learning Management System? Comparing Blackboard, Canvas, Moodle Part I: Course Content. *E-learning Guru*. Retreived from http://elearning.guru/which-learning-management-system-comparing-blackboard-canvas moodle-part-1-course-content/

This resource is an article explaining how Moodle is used to delivery online learning. The articles also compares Moodle to its competitors (Blackboard and Canvas). School administrators and technology persons that are evaluating multiple LMS for future implementation can use this resource to gain a better understand of the benefits of Moodle.

Hinton, Leona. (2016 January 13). 10 Time-Proven Moodle Plugins for Teachers and Students That You Don't Want to Miss. *EmergingEdTech*. Retrieved from http://www.emergingedtech.com/2016/01/10-tested-proven-moodle-plugins/

A Moodle user's experiences with Moodle plug-ins to enhance the learning and classroom management.

Moodle. (2016 December 8). Guide teachers and students through your Moodle site with the new user tours feature. *Moodle*. Retrieved from https://moodle.com/2016/12/08/guide teachers-students-moodle-site-new-user-tours feature/?utm_source=twitter&utm_medium=social%20post&utm_campaign=pre%20m ot%20us%2016

The above source provides a video tour that may be used for training by teachers and students on accessing different Moodle learning modules.

Moodle. (2015 March 26). History teaching with YouTube and Moodle. *Moodle* Retrieved from https://moodle.com/2015/03/26/history-teaching-with-youtube-and-moodle/.

History teachers can post YouTube videos within their Moodle classes to create engagement, develop empathy, and check for understanding. Some interesting channels are British Pathe, or NASA TV. After students watch the videos, teachers can assign discussions, quizzes, essays, or even assign students' to record their own videos and host them into the school's YouTube account.

Moodle. (2007). The world's open source learning platform. *Moodle*. Retrieved from https://twitter.com/moodle

Moodle Twitter community a source for current and upcoming updates, connections to users and examples of how Moodle is being used by other sites.

Google Play. (2016). Moodle Mobile for Androids. Retrieved from https://play.google.com/store/apps/details?id=com.moodle.moodlemobile&hl=en

iTunes Preview. (2016) Moodle Mobile for iPhones or iPads (iOS 6 or later) itunes.apple.com. Retrieved from https://itunes.apple.com/us/app/moodle-mobile/id633359593?mt=8

Moodle Mobile
These official Moodle Mobile app will only work with Moodle sites that have been set up to allow it. This would be set up through the Moodle account administrator.
You can use this app to browse the content of your courses, receive notifications, view coursework grades, and more.

Moodlerooms. (2016). Blogs. *Moodlerooms*. Retrieved from https://www.moodlerooms.com/blog/

Moodleroom Blogs host information pertaining to curriculum design, getting started with Moodle, creating a universal design for online courses, building trust in your Moodle classroom, etc.. Moodlerooms instructional designers, or expert instructors they have located have posted informative articles, highlights, resources etc. for instructors to use in their K-12 and Higher Education classes.

Moodle. (n.d.). Welcome to the Moodle Community Forums. *Moodle*. Retrieved from https://moodle.org/course/

This site offers answers in many different languages to Moodle support-related questions.

Rinkel, Jeremy. (2011 November 14). Five Reasons: Use Moodle for Journal Writing. *Scholastic*. Retrieved from http://www.scholastic.com/teachers/classroom solutions/2011/11/five-reasons-i-use-moodle-journal-writing-0

Moodle is a resource for student journal writing. Each student does not need to purchase journals which in turns does not waste paper. Teachers do not have to carry home a stack of journals each night. He or she only needs to log into Moodle to review and respond to each student's response. The response time is quicker since the teacher only needs a smart device and Internet access. Moodle allows each student to journal at any time of the day and also in a private environment.

Stasinakis, Panagiotis and Michail and Kalogiannakis. (2015). Using Moodle in secondary education: A case study of the course 'Research Project' in Greece. *International Journal of Education and Development using Information and Communication Technology*. Retrieved from http://files.eric.ed.gov/fulltext/EJ1086651.pdf

This resource provides a paper that reports on a study of use of the platform Moodle, in order to organize and implement courses. The study took place in the second four-month period of the academic year, 2012-2013. Students in the study participated in a two-hour long class in which they used Moodle to host a project. The study showed how students are able to become familiar with and benefit from Moodle.

State of New Jersey: NJDOE. (2016). NJDOE Blended Online Learning Modules. *Online plc.org*. Retrieved from http://www.online-plc.org/

State of New Jersey online PD site for teacher training on the use of Moodle.

Participant Survey & Evaluation

Instructional workshops prepared to provide administrators and educators with the knowledge and practices to implement innovative technologies can be methodically planned and

executed but not meet the needs of all learners. What we know about our students applies to all learners; not everyone learns in the same way. Accepting this not only with our student learners but with all learners allows us to be open to meet the specific needs of all stakeholders. The goal for this Moodle training is to present the information necessary for Moodle to be fully implemented to benefit all stakeholders. Therefore, it is imperative to gain the insights of those who participated in the training. This provides us with the knowledge of possible next steps to ensure the successful district-wide use of Moodle.

Participant Survey Click HERE

Evaluation Instrument:

- Course Overview and Introduction
- Rubric
- Certificate

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Bhattacherjee, A., & Premkumar, G. (2004). Understanding changes in belief and attitude toward information technology usage: a theoretical model and longitudinal test. *MIS quarterly*, 229-254. Retrieved from http://www.jstor.org/stable/25148634?seq=1#page_scan_tab_contents

Farkas, M. (2012). Participatory technologies, pedagogy 2.0 and information literacy. *Library Hi* (1), 82-94. doi:http://dx.doi.org/10.1108/07378831211213229

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Kruger, D., Inman, S., Ding, Z., Kang, Y., Kuna, P., Liu, Y., . . . Wang, Y. (2015). Improving teacher effectiveness: Designing better assessment tools in learning management systems. *Future Internet*, *7*(4), 484-499. doi:10.3390/fi7040484

LORANGER, H. (2016). The negativity bias in user experience. Retrieved from https://www.nngroup.com/articles/negativity-bias-ux/

Macnaughton, S., M.L.I.S., & Medinsky, M., M.L.I.S. (2015). Staff training, onboarding, and professional development using a learning management system. *Partnership : The Canadian Journal of Library and Information Practice and Research*, *10*(2), 1-8. Retrieved from http://search.proquest.com/docview/1783657932?accountid=12793

Nasser, R., Cherif, M., & Romanowski, M. (2011). Factors that impact student usage of the learning management system in qatari schools. *International Review of Research in Open and Distance Learning*, *12*(6) Retrieved from http://search.proquest.com/docview/1634475877?accountid=12793

Paily, M. U. (2013). Creating constructivist learning environment: Role of "web 2.0 technology. *International Forum of Teaching and Studies*, *9*(1), 39-50,52. Retrieved from

http://search.proquest.com/docview/1346942900?accountid=12793

Power, R. L., Cristol, D., Gimbert, B., Bartoletti, R., & Kilgore, W. (2016). Using the mTSES to evaluate and optimize mLearning professional development. *International Review of Research in Open and Distance Learning*, *17*(4) Retrieved from http://search.proquest.com/docview/1829492373?accountid=12793

Shakeshaft, C., Becker, J., Mann, D., Reardon, M., & Robinson, K. (2013). TOWARD FIDELITY: SIMULATION-BASED LEARNING FOR SCHOOL PRINCIPAL PREPARATION AND PROFESSIONAL DEVELOPMENT. *Planning and Changing*,*44*(1), 5-20. Retrieved from http://search.proquest.com/docview/1506941395?accountid=12793

Using Social Media to Build Professional Skills. (2016). *Harvard Business Review*. Retrieved 8 December 2016, from https://hbr.org/2016/08/using-social-media-to-build-professional skills

Van Acker, F., van Buuren, H., Kreijns, K., & Vermeulen, M. (2013). Why teachers use digital learning materials: The role of self-efficacy, subjective norm and attitude. *Education and Information Technologies*, *18*(3), 495-514. doi:http://dx.doi.org/10.1007/s10639-011 9181-9

Voogt, J., Laferrière, T., Breuleux, A., Itow, R. C., Hickey, D. T., & Mckenney, S. (2015). Collaborative design as a form of professional development. *Instructional Science*, *43*(2), 259-282. doi:http://dx.doi.org/10.1007/s11251-014-9340-7

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Williams, R. (2014). Are we hardwired to be positive or negative?. Retrieved from https://www.psychologytoday.com/blog/wired-success/201406/are-we-hardwired-be positive-or-negative

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