Moodle (Modular Object-Oriented Dynamic Learning Environment)

Definition: a learning management system (LMS) creating a community based learning tool used to communicate between peers and construct new knowledge in an online learning environment. Moodle provides the opportunity to interact and collaborate with other students on the content knowledge as well as share their ideas through discussion. Moodle is set up so that students can submit assignments, download files (i.e. class notes), access their grades, access an online calendar (important dates), news, and announcements, and contribute to a course wiki, blog.

### Effective Use of Moodle in the Classroom

<table>
<thead>
<tr>
<th>Description of Use</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specific reminders and notifications:</strong></td>
<td><strong>Meaningful use of technology</strong></td>
</tr>
<tr>
<td>• Special announcements</td>
<td>Based on the class summary of the Meaningful Use of Technology, this specific component of Moodle supports the student’s success by providing the content of the course and allowing access to class notes, announcements, quizzes, and homework schedules. The content and needs of learning are taken into consideration to enhance the students learning by providing students with their notes incase classes were missed or they didn’t completely understand what was asked of them. It allows for the opportunity to revise content that was not clearly understood.</td>
</tr>
<tr>
<td>• Homework schedule</td>
<td></td>
</tr>
<tr>
<td>• Daily readings</td>
<td></td>
</tr>
<tr>
<td>• Quizzes</td>
<td></td>
</tr>
<tr>
<td>• Link to course wiki</td>
<td></td>
</tr>
<tr>
<td>• Course notes</td>
<td></td>
</tr>
<tr>
<td>• Allows for an opportunity to keep parents involved and a way to communicate with teacher</td>
<td></td>
</tr>
<tr>
<td><strong>How we learn</strong></td>
<td><strong>How we learn</strong></td>
</tr>
<tr>
<td>Based on the Bransford et al article, the opportunity of allowing for a way of communication and involving the students’ parents to be a part of their learning experience is crucial. Bransford et al (1999) states that; “teachers must attend to designing classroom activities and helping students organize their work in ways to promote the kind of intellectual attitudes toward learning that build a sense of community” (Pg 22). Including parents into their children’s learning, helps build that community and also depends on the students’ educational level (i.e. primary students vs adult learners). Moodle also creates a different environment for learning. Students have access to their notes, announcements, and homework from anywhere.</td>
<td><strong>Net Generation</strong></td>
</tr>
<tr>
<td>Based on Tapscott’s book about Net Generation Norms, this particular strategy on Moodle allows for collaboration and relationships among students, teachers, parents, and the</td>
<td></td>
</tr>
</tbody>
</table>
school community. It opens the door for everyone to have a voice and to know what is happening inside the classroom based on the material provided in this section. It also promotes the norm; Speed where it allows for students to have instant access to their assignments, homework, readings etc.

- **Learning Theories**
The learning theories that best suit this particular strategy in Moodle are Problem Based Learning where the students are active participants in their learning process. Social Constructivism (Vygotsky and Bruner) is another learning theory that fits this strategy because it creates meaning of the course content located in different environments and experiences, and allows the students to be involved in the assessment process (criteria, method, marking, and feedback) where there are no surprises because everything is available to them.

- **21st Century**
Based on the 21st Century skills website this strategy supports effective problem solving by conventional and innovate ways by using Moodle to look up missing notes or expand on content through the wiki that is possibly created. It also promotes independent work where students are able to access their assignments, monitor, define, prioritize and complete tasks without direct oversight from the teacher. This is an area where the students know all the information is to be successful in the course/class.

### Open interactions and discussions
- Interactions between student and student of student and teacher
- Allows for discussion of ideas, views, and perspectives
- Chat based format
- Allows for feedback to be given

- **Meaningful use of technology**
According to the class summary of the Meaningful Use of Technology this strategy supports the idea of “when students learning goes deep, it is more relevant and they are more engaged and challenged, collaborative, and reflective” (Team 4). Having open interactions and discussions between students allow for them to engage in a discussion that promotes their learning. It also allows them to critically think about the material in the class and explore the questions of what, why, how, etc.

- **How we learn**
Based on the article of How We Learn, this strategy is supported by developing competence in the areas of inquiry. “Students must have a deep foundation of factual knowledge, understand facts and ideas in the context of a conceptual framework and
organize knowledge in ways that facilitate retrieval and application.” (Pg 12) Students build on their prior knowledge and foundations through open discussions with their peers and teachers. Bransford et al (1999) also states that “Students must have opportunities to learn with understanding. Deep understanding of subject matter transforms factual information into useable knowledge” (Pg 12). Students can use this opportunity and apply what they have learned through structured or unstructured discussions. Finally; “Cultural differences can affect student’s comfort level in working collaboratively versus individually.” (Pg 19) This is a very important quote from Bransford et al because our schools are very multicultural and having the outlet on Moodle to engage and interact with other students on subject matter or content can be very beneficial. It allows for an opportunity to view other perspectives as well as collaborate and interact with individuals they may not usually interact with.

- **Net Generation**
  According to Tapscott's net generation novel, the norms that best norms that fit this strategy are Freedom, Speed, and Collaboration. Students like to have the freedom when it involves their learning. Tapscott (2009) writes that the net generation “have at their fingertips access to much of the worlds knowledge. Learning for them should take place where and when they want it.”(Pg 77) Having the outlet of open interactions and active discussions between classmates allows for this. When it comes to speed the net generation are “used to instant responses, 24/7, every instant message should draw an instant response.” (Pg 93) Within the discussions, students can build on their knowledge, see different perspectives of what their classmates are thinking and receive instant responses to questions posed. This strategy also allows for feedback, which allows the teacher to give instant feedback and the students know where they are with understanding of the content. Collaboration is another norm that Tapscott touches on and I feel this strategy best suits, because it allows for students to work together anywhere, anytime

- **Learning Theories**
  The theories that support open discussions and interaction between students as a positive in Moodle are Social Development Theory (Vygotsky), Discovery Learning Theory (Bruner) and Social Learning Theory (Bandura). Vygotsky believes that learning is developed through social interaction and their culture. By participating in various open discussions
students are learning from their peers of various cultures and perspectives. Open discussion also supports Bruner’s theory of Discovery where the students interact with each other and discover their own facts and relationships for themselves through interaction and discussion. Moodle provides an opportunity for discovery, exploration, engagement, motivation, and independence through their discussion. Finally, Bandura’s theory (Social Learning Theory) believes that students learn from one another using observation, imitation, and modeling. The open discussion and interaction between the students and teachers allow for the students to model appropriate behaviour when using open forums.

- **21st Century**
  According to the 21st Century Skills, this specific strategy in Moodle allows for the exploration of the core subjects (global awareness, financial, economic business and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy) and creates an opportunity for the students to discuss amongst themselves each of the subjects. This is important because the core subjects are not incorporated into the curriculum and allowing for an alternative method of learning the core subjects through discussion can be very beneficial. Open discussion and interactions between students is an opportunity for creativity and innovation where the students can communicate their ideas effectively and remain open to new diverse perspectives of their peers. This strategy also supports that students can make appropriate judgments and decisions based on evidence and analyze alternative points of very. Open discussion and interaction between students can open the area for proper ethical behaviour and integrity. This is an area where students can express themselves in an appropriate manner.

<table>
<thead>
<tr>
<th>Models Collaboration</th>
<th>Meaningful use of technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Students have the opportunity to work on group projects</td>
<td>According to the Meaningful Use of Technology summary page, this strategy of collaboration, peer editing and evaluation supports students’ success. It allows the students to contribute to each other’s learning and access to assignments of other students. Team 5 states, “teachers and students are continuously building a foundation that uses and implements various tools that enhance the evolving learning environment” and this strategy fits in perfectly. It is a tool that is allowing students to post their assignments for others to view, gain knowledge, and provides an outlet for deeper</td>
</tr>
</tbody>
</table>
and evaluations on work thinking, as well it promotes collaboration where students can be working on various assignments together at various times.

- **How we learn**
  Based on the article of How We Learn, students of this generation are bombarded with an abundance of information in the curriculum. Bransford (1999) believes that “superficial coverage of all topics in a subject area must be replaced with in depth coverage of fewer topics that allows key concepts in the discipline to be understood” (pg 16). By having students create collaborative works and edit each other’s assignments, it will incorporate more of a variety of topics and create that deeper understanding. As well this ties in with the open discussion and interaction between students where the students can take their collaborative work and discuss ideas and views further.

- **Net Generation**
  Based on this strategy, Tapscott’s norms that fit are Integrity - the net generation; “expect other people to have integrity” (pg 85) and this is especially important when students are working together on assignments. Collaboration is a key norm for this generation and strategy in particular because students enjoy working together, there are more ideas and views discussed creating a better learning environment.

- **Learning Theories**
  The learning theories associated with this particular strategy in Moodle are Constructivism where the students acquire new information and transfer it from prior knowledge and the learning process is an active experience. Social Development Theory (Vygotsky) is a critical theory for collaboration, peer editing, evaluating, and group projects because it is an environment where social interaction takes place and incorporates many different cultures, views, and ideas. Social Learning Theory (Bandura) is a theory that supports this strategy as well because it allows for an opportunity for the students to learn from each other. Collaboration creates an environment where students discuss ideas and observation, imitation, and modeling can be present when working together on an assignment or task.

- **21st Century**
  Collaboration, peer editing, and access to other assignments allows for students to build
their knowledge of the core subjects (global awareness, financial, economic business and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy). This is only possible if the instructor incorporates the core subjects into the curriculum assignments. Students have the opportunity to work creatively with each other and incorporate group input and feedback into their work. This is especially important when students are peer editing and giving feedback to one another.

References


