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EDET 746, Fall 2011 November 22nd, 2011 Evaluation Paper

Evaluation:

Evaluation is the process of determining the effectiveness of the instruction. It is typically split into three categories:

- formative evaluation: the evaluation of the instruction performed while the instruction is being formed
- summative evaluation: the evaluation of the instruction performed after the instruction has been implemented
- learner evaluation: determining the performance change of the learners due to the instruction implemented

Formative Evaluation:

Formative evaluation is used throughout the instructional design process to refine the design. The evaluation works with the design and development stages to form a recursive system of revision. The changes suggested by evaluation, once put into practice, need to be examined by further evaluation. Since the EDET 746 group project has only one implementation phase, the formative evaluation during the design and development stages consisted of collaborative input and revisions from the four group members and feedback from our instructor. During these stages we honed the instruction to best meet the needs defined during the analysis stage.

During the implementation phase, our primary method of formative evaluation was two surveys. The instructor administered a survey focusing on the tutorial itself. The questions were stated in a way that encouraged the participants to provide us with a bit more information than a "yes" or "no" answer. At the end of the survey participants were given an opportunity to provide more in-depth commentary and suggestions. The results and commentary were as follows:

- Q1. Was the tutorial easy to follow?
- A1. 90% of the participants believed the tutorial was easy to follow. The remaining 10% stated "somewhat" or "sort of". The participants' feedback showed that the training helped clarify some of their points but some of the participants still needed one-on-one help with the multiple levels in Museum Box. As one stated, "somewhat I do better trying it as someone talks me through the steps bit by bit!"
 - Q2. Did you successfully create a Museum Box site?
- A2. 80% were able to complete at least a cube using the tutorial. Many wanted to explore all the features and add one of every type of media (link, sounds, files, etc). Since some of the extras types of media (files, videos) have to be uploaded, some participants were frustrated until the instructor explained during the training how those work. She had them focus only on the pictures and sounds available through Museum Box unless they were in the advanced group. The advanced group had no problems grasping the ideas.
 - Q3. Did you find the handout useful?
- A3. The handout was well received. All participants liked the visuals and step-by-step layout.
 - Q4. Do you recommend any changes?

- A4. Changes identify included: including in the tutorial discussion of how Museum Box could be used in a classroom (this was done during the training but not incorporated into the tutorial); more of the background of the site.
 - Q5. Would you use Museum Box with your students?
- A5. The younger grade teachers (K/1) saw it as a tool for teachers more than students. The older grades loved the idea of using it with students. Comments were:

"Museum Box seems like a lot of fun. I am going to share Tutorial information with the students."

"YES!!!! It is a very creative way for students to report on information they have studied."

"This might be a fun activity to do at the end of a unit as it's fairly simple (once you have the directions down) to create a box."

"Yes - we could do some cool activities with composers!"

An additional online survey was administered to determine the technical backgrounds and the motivational level of the participants. Ninety-two people completed the survey, of which 8 are teachers and 84 are students. Full survey results are available here: Museum Box Survey Results.pdf. The Museum Box Survey also included questions specifically for teachers and other for students. The survey asked the following questions only of teachers:

- 1. What do you feel is your level of knowledge about technology?
- 2. Would additional instruction make you feel comfortable with using Museum Box for lessons or allowing students to turn in projects with Museum Box?
- 3. Did you find the Museum Box tutorials helpful?
- 4. Would you be interested in using Museum Box and other Web 2.0 tools in your classroom?
- 5. Would you use Museum Box with your students?

The additional survey questions for students included questions such as:

- 1. How good at technology are you?
- 2. Did you enjoy using the Museum Box program in your class?
- 3. Would you enjoy using tools like this as part of your classroom learning and projects?
- 4. Would you like more instruction on how to use Museum Box to make you feel more comfortable about using it for learning and projects?
- 5. When learning new tools, how would like to learn them?

Summative Evaluation:

After instruction has been implemented, summative evaluation is used to test the effectiveness of the design. In short, have the goals and objectives been met?

The primary factor that will determine whether or not each teacher has met the learning objectives is his/her creation of a Museum Box to implement in his/her classroom, since this task incorporates all the steps leading up to it. A rubric including these steps was created to evaluate each teacher's Museum Box based on the learning objectives. This evaluation will not affect the teacher's employment; it will only be used to measure the quality of the instruction and measure the learning objectives. The rubric designed to evaluate this is located within the appendix. At this time, the results of evaluating each teacher's Museum Box are not available.

Learner Evaluation:

The ultimate goals of the staff development program are to:

- Gain the learners attention and encourage them to participate in the activity and interact with the tools.
- Make the learner feel that the material is relevant to their needs and will be useful to them in the future.
- Help build their confidence by guiding them step-by-step throughout the process.
 Lessons will be presented in small steps and be self-paced.
- Provide positive outcomes for the teachers with these Web 2.0 tools so that teachers will be excited to use them and see how useful these tools can be in their classroom.

In other words, student achievement and motivation toward academic areas are the number one priority and the purpose of using Museum Box. In order to evaluate the program effectively, we must take a close look at student feedback and the learning accomplished by students. The projects of learners are to be evaluated by individual teachers based on their designed rubric. At this time, results from evaluating student Museum Box projects are not available.

Significant data from student feedback were as follows:

- Out of 84 responses, 77 stated they would like this as part of classroom learning and projects.
- Out of 84 responses, 67 stated that they would like additional instruction on Museum Box. One responded "The tutorials really helped and I would love more of those:)"
- Seventy-six students stated that they use technology at least three times in classrooms each week.
- Seventy-three students stated that they use technology at least three times at home each week.
- Only three of the 84 students do not have access to the Internet at home.
- When asked, "When learning new tools, how would you like to learn them?" 20 stated reading preference, 10 stated listening to audio tutorial preference, 27 stated watching a video or animation preference, and 40 stated a combination of all of the above as their preference.

The data from our student evaluations show that our goals of motivating students and providing meaningful learning environment have been accomplished.

Conclusion

With the short time span required to implement this staff development program, our evaluation only gives us a partial view into determining the effectiveness of the program. Both teacher and student feedback appears to show a strong desire to use and implement web 2.0 tools in the classroom, including Museum Box. The majority of the students (80%) and teachers (100%) classify themselves as good or advanced users of technology. In addition, most (90%) thought the tutorial was easy to follow and understand. In light of this data, it was unexpected to find that students (80%) and teachers (75%) both would like additional instruction for them to feel more comfortable using Museum Box. This appears to be mixed results. It is not clear from the feedback received via the survey as to why this may be. As the instructional designers, we are left to determine the cause of this. One possibility is the short amount of time given to

students and teachers to implement this program. The staff development program was originally designed to cover five sessions, which could equate to one session per week. Since the program was implemented within a two to three week span of time for purposes of the EDET 746 class, the teachers and students may have felt rushed and needed more time to explore on their own as they viewed each tutorial session.

Appendix A: Rubric/Checklist

This rubric is designed to evaluate teachers' Museum Box and determine if they have successfully completed the staff development program. Each objective is either met or not met.

Complete the checklist by placing a " $\sqrt{}$ " in the appropriate box for each objective.

Objective	Not Met	Met
Create a Museum Box account.		
Create student accounts for Museum Box.		
At least 5 media (images, text, sounds, videos, files, and links) items are added to the drawer.		
At least 10 cubes have media added.		
Title and Descriptions are added to the Museum Box as a whole.		
Title and caption are added to each cube.		
At least one cube must have three or more sides with media attached to the cube.		
The number of cubes within a layer is changed from the default setting.		
The number of layers is changed from the default setting.		
The color or texture of the Museum Box is changed from the default.		
The color or texture of the cubes is changed from the default.		
The Museum Box is saved for future implementation and access.		
Implement the use of this web 2.0 tool in classroom instruction or student projects.		
A rubric is developed to analyze the student projects created with Museum Box. The rubric created includes all stated objectives desired with the staff development program.		
Total Objectives Met:	-	