

UMCP Educational Technology Outreach Online Course Assessment and Evaluation Model

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Abstract: This paper offers lessons learned from the development and delivery of University of Maryland, College Park's Educational Technology Outreach Online Course Assessment and Evaluation Model and case study analysis of two selected on-line educational technology courses . This model resulted from two overarching questions: How will our courses provide evidence of student content knowledge and skill competency to meet the NCATE review board requirements? Have the course content and activities actually changed participant behavior in the classroom/workplace?

Statement of the Problem or Issue

Technologically mediated instruction offered at a distance has rapidly become an important component of higher education. However, faculty/instructors often find it difficult to assess student learning and outcomes when they have little, if any face to face interaction with participants. While student assessment through distance learning poses a challenge, a focus on interactivity, design strategies that help decrease student anxiety level, and multi-pronged activities and assessment measures can provide unique opportunities for detailed feedback to learners.

This paper will discuss lessons learned from the evolution of the development and delivery of the University of Maryland, College of Education, Educational Technology Outreach On-line Course Assessment and Evaluation Model and case study analysis of two selected on-line educational technology courses.

Background

The Educational Technology Outreach (ETO) assessment model initiative results from two overarching questions: 1. How will our courses provide evidence of student content knowledge and skill competency to meet the NCATE review board requirements? and 2. Have the course content and activities actually changed participant behaviors in the classroom/workplace?

Assessment Model

ETO has implemented (a three year + endeavor) an evaluation strategy based the conceptual framework of the Kirkpatrick's Training model. Assessment and evaluations of the on-line courses are systematic and ongoing, and are used to improve the content and delivery of the on-going and future courses. Both formative and summative evaluation protocols and instruments are used to guide the content and delivery.

All courses include an on-line pre- profile assessment, and an introduction discussion thread helps the instructor find out more about the particular interest and background of the participants.

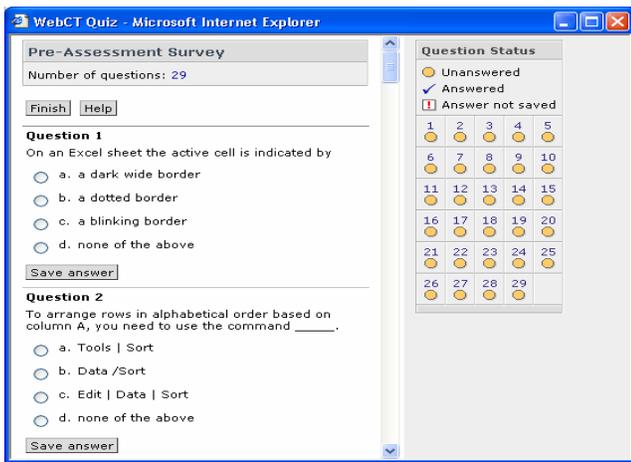


Figure 1: Pre-Assessment survey

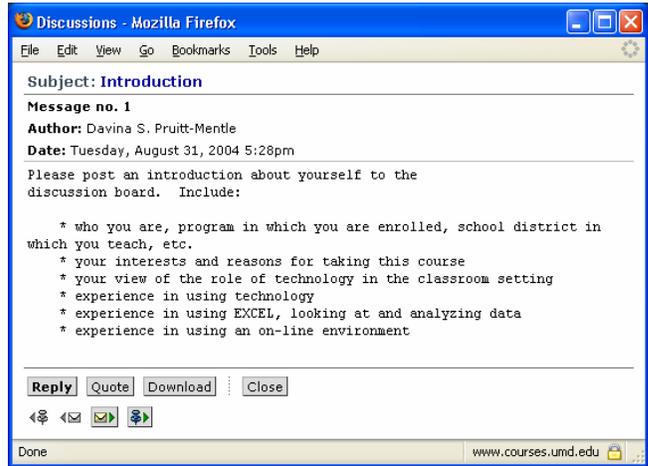


Figure 2: Introduction Discussion Thread

Pre and Post Profile Assessment Profiles of Two Selected Courses

	Pre Profile		Post Profile		Difference	Paired <i>t</i> -test
	M	SD	M	SD		
Cohort 1						
ICT skills	2.37	.68	2.95	.78	0.58	**
Adv. Word	3.05	.62	3.58	.51	0.53	**
Basic Spreadsheet use	2.74	.62	3.11	.46	0.37	**
Locate data	2.89	.56	3.32	.58	0.42	**
Adv. Excel	1.84	.32	2.63	.76	0.79	**
Interpret data	2.05	.77	2.89	.66	0.84	**
Analyze data	2.11	.71	2.74	.73	0.63	**
Present data findings	1.53	.70	2.53	.96	1.00	**
Cohort 2						
ICT skills	2.39	.67	3.05	.87	0.66	**
Adv. Word	2.90	.59	3.40	.55	0.50	**
Basic Spreadsheet use	2.60	.67	3.20	.41	0.60	**
Locate data	2.71	.51	3.29	.46	0.59	**
Adv. Excel	1.68	.69	2.50	.88	0.83	**
Interpret data	1.83	.77	2.80	.75	0.98	**
Analyze data	1.98	.66	2.55	.75	0.57	**
Present data findings	1.27	.55	2.37	.92	1.10	**

Table 1: Pre and Post Profile Assessment Profiles of Two Selected Courses

Note. Two selected cohorts. 698V/EDHD 435 Assessment and Design Strategies with Technology Tools. * $p < .05$. ** $p < .01$. Each domain includes four performance levels, with level three considered "mastery".

Throughout the course real time chat room dialogue allows participants to express comments and concerns regarding the course. Formative content knowledge assessments are on-going and include a variety of formats to include, on-line discussion threads, mini-assignments, group work, chat room discussions, projects and papers, on-line self tests and quizzes and graded quizzes and tests. Feedback gathered from assignments has helped in the redesign of course activities (both in the on-going course and in redesign of the same course offered later). Multiple summative evaluations are also used. These include: the post- profile assessment, the University's evaluation instrument which has been recreated in the online format and can be submitted anonymously, two open ended discussion questions and completion of the [How I as a Student Meet Standards Matrix](#).

IDEA Survey	
Number of questions: 47	
Finish	Help

Question 1:
Your thoughtful answers to these questions will provide helpful information to your instructor. Describe the frequency of your instructor's teaching procedures using the following code:
A: Hardly Ever
B: Occasionally
C: Sometimes
D: Frequently
E: Almost Always

Displayed a personal interest in students and their learning.

a. Hardly Ever
 b. Occasionally
 c. Sometimes
 d. Frequently
 e. Almost Always

Save answer **Next Question**

Figure 3: University based Course evaluation



Module Evaluation

Please share your experiences this semester with this course module. What did you expect? What did you get out of the module? What will you remember months from now? Indicate what I should include, delete, modify in upcoming semesters--understanding that the three overall objectives were: 1) students will be able to locate, retrieve and be able to analyze a variety of school and school/community demographic data; 2) students will be competent with appropriate technology and tools (internet and Excel) to collect, organize, analyze and share results and solutions; and 3) students will be able to analyze, interpret and make instructional decisions for their classroom and school improvement plan based on data collected and analyzed/interpreted. Share any other comments that would be helpful for presenting this information to others. Please do not just state, too much for 4 weeks, or too hard. If you feel this is true, please also include recommendations as to how the same content can be covered in order to produce the same results. It is understood that we are all adults and professionals and therefore critical analysis is appreciated and in no means will be reflected in your grade.

Figure 4: Module evaluation discussion

To answer the second question, “Have the course content and activities actually changed participant behaviors in the classroom/workplace”? , ETO uses follow-up surveys to see if and how students have continued to apply the knowledge/skills after course conclusion. This is done 1-2 semesters after completion of the course.

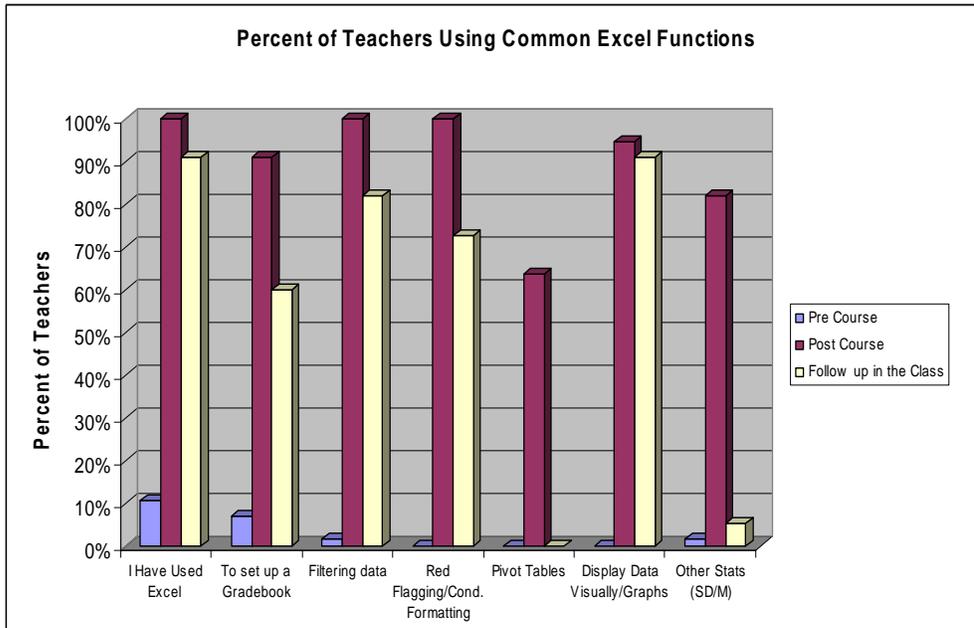


Figure 5: Percent of teachers using Excel functions before and after course content

Sample comments from participants asked, “Have you utilized what you learned in EDUC 698V and if so how. Please give examples...”

I presented a workshop within my school on how to use the Data filtering feature

I taught my mentor teacher how to use the red flagging feature

I set up my grade book downloading the MSDE indicators...

I used the Chart Wizard to create a visual for a parent conference

I taught my students how to use Excel to sum/ average

Figure 2: Sample follow up comments from participants. Follow-up 1 semester after course.

Conclusion

The lessons learned are applicable to all disciplines, courses and/or professional development activities. Examples of all instruments, the original and current re-design of courses, and assessment and evaluation results will be shared.