

BEST INSTRUCTIONAL PRACTICES USING MERLOT LEARNING RESOURCES

EXERT FROM THE DOCTOAL DISSERTATION

S. S. Qadri, “MERLOT: A Study of the Best Practices and Attitudes of Undergraduate Mathematics Faculty towards the Integration of Electronic Resources in Teaching”, Doctoral Dissertation– Department of Science/Math Education, Southern university in Baton Rouge, 2005

THEMES	BEST INSTRUCTIONAL PRACTICES USING MERLOT LEARNING RESOURCES
INNOVATIVE USE OF MERLOT REFERATORY	<ol style="list-style-type: none"> 1. <i>Developing personal collections to share with peers and colleagues.</i> 2. <i>Developing departmental collections to support instruction.</i>
BEST PRACTICES FOR INTEGRATING MERLOT	<ol style="list-style-type: none"> 1. <i>Incorporating simulations, tutorials and relevant assignments in instruction to assist students in fully understanding material and interacting with each other.</i> 2. <i>Refer students to relevant electronic resources and then testing them on the information at a later date.</i> 3. <i>Providing the related learning resources for students to construct their own meaning.</i> 4. <i>Direct students to the MERLOT site to locate relevant material for additional practice and feedback.</i> 5. <i>Using MERLOT electronic resources as an instructional tool by designing a course using and/or combining several learning objects to design an entire course.</i> 6. <i>Implementing an exploratory design by providing students with a personal collection of relevant learning objects as pre-preparation to instruction.</i> 7. <i>Implementing a reinforced design by providing students with a personal collection of relevant learning objects as references for post-lecture understanding of material.</i> 8. <i>Students can create personal collections to share and discuss during classroom sessions.</i> 9. <i>Using an exploratory design by providing the student with a topic, then directing them to the appropriate MERLOT learning community to conduct a virtual field-trip and identify favorite objects related to the topic. Class discussion is recommended.</i> 10. <i>Using a reinforced design by conducting full lecture sessions, then directing the students to the appropriate MERLOT learning community to conduct a virtual field-trip and identify favorite objects related to the topic. Class</i>

BEST PRACTICES (cont'd)	<i>discussion is recommended.</i>
BEST PRACTICES FOR MEASURING EFFECTIVENESS	<ol style="list-style-type: none"> 1. <i>Faculty observation and conversation among students.</i> 2. <i>Quizzes and exam results on related material.</i> 3. <i>Feedback from students through student surveys and progress reports.</i> 4. <i>Observing the Affective domain by students' reactions to the introduction and use of the resources.</i>

Table XXXIV: Best Instructional Practices

Table XXXIV summarizes innovative uses of the referatory by undergraduate mathematics faculty and the best practices that have emerged from the use and reuse of resources in mathematics instruction as well as the strategies used to measure effectiveness and success with their students. However, these early adopters convey the difficulty in practically measuring the effect of using learning resources in student performance and the lack of research in this specific area. Instead, the majority of the participants use learning outcomes relative to the affective domain and students attitudes towards the use of media to support their learning.