**Module 2: Design map and memo**

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**EDRS 797: Mixed Methods**

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**Design Map:** Exploring the use of social media to enhance student learning in higher education

**Research Questions:**

1. In what ways are faculty members using social media at GMU?
2. What are the most common social media tools that faculty use in their teaching at GMU?
3. What are the most common tasks that faculty assign for students to complete through social media? For both 2 and 3, I would state the question more broadly as "What social media tools do faculty use . . .?" etc.; some *less* commonly used tools and assigned tasks may be important to know about. (I see both of these questions as subquestions of 1.)
4. How? Does social media enhance student learning?
5. What learning activities that faculty assign through social media enhance student learning the most? Your discussion in the memo suggests that what you really expect to learn is what activities the faculty (and students) *perceive to* enhance student learning the most.

**Memo**

In the beginning of this course, my goal was to learn more about mixed methods research and I did not have a topic in mind to conduct research on. However, during the independent study phase, I had the chance to read about a topic that I am interested in investigating, social media/Web 2.0 tools application in higher education. Initially, my interest in this topic started through my own teaching practices in which I use social media tools as learning platforms to facilitate communication with the students and among themselves in addition to using social media to share class activities and assignments. I implemented these tools to encourage students’ interactions and to help them communicate in English, but I could not tell how the use of blogs, wikis, and Facebook have influenced their learning. I also felt that there was a gap in the literature that could explain this influence. Social learning theories have highlighted the importance of social interaction in development and learning, but how is that explained in the current spread of social media? Good point. Through the extensive spread of social media in education and the trainings that Instructional technology departments perform to support faculty in using these tools, several questions come to my mind including the effectiveness of the use of social media tools in education, the percentage of faculty who use these tools and how specifically do they use them, and the types of tasks that faculty use and that serve in promoting student learning.

My plan is to conduct a pilot study in Fall 2012 to investigate the use of social media by faculty members at GMU. I am planning to start my research with quantitative data collection through a survey that will be sent to GMU faculty members (if possible to the whole body of faculty) to determine the percentage and distribution? of faculty members who use social media in their teaching, the social media tools that they mostly use, the types of learning tasks that they assign through these tools, and the extent to which they think that social media activities have enhanced their students’ learning of the course content. Faculty will also be asked to provide their email addresses in case they wish to participate in a follow up interview. For the purpose of this pilot study, I will follow up with interviews with 5 faculty members who are purposively sampled based on the frequency of their use of social media in their courses. The purpose of the faculty interviews is to understand their experiences teaching courses without the use of social media as compared to classes with social media, and the types of tasks that they thought were most helpful for student learning. Based on the faculty approval, I will ask them to share a survey with their students. The purpose of this survey is to measure perceptions of student learning through the use of social media in their respective courses. The survey questions will focus on the students’ experiences using social media in the respective course and the difference that it makes in their learning if any. Also the students will rate the tasks that were assigned to them through social media based on their positive impact on their learning if any. Hence the process of my research will be as follows:

Quantitative Qualitative Quantitative

I will use data from the first instrument (faculty survey) to inform the design of the next instrument (faculty interview), and the second instrument will inform the third instrument (student survey). The first step in the research process will help me in the purposeful sampling as well as in writing the interview questions which will focus on specific tools that faculty use and their impact on the student learning. The students will also be surveyed based on their professor’s description of the tasks and they will be asked to rate their learning.

In my data analysis I will adopt the comparison approach as Greene (2007) describes it. I will compare the faculty responses to the tools that promoted student learning to the students’ responses on the same questions, and in order do so, I will quantitize data from faculty interviews when they describe their students’ learning using the respective social media tools so that I can compare them to the students’ quantitative responses. I'm not sure how useful quantitizing will be with such a small number of interviewees. In the survey, the students will also be asked to write about their experiences using social media and this will be compared to the faculty’s experiences by coding data. OK. Data from faculty interviews and student surveys will be compared to establish data validity and to triangulate data in order to minimize validity threats. But if you are really studying their perceptions, it's comparing apples and oranges; you would expect them to have different perceptions. Also this is only a pilot study which will be backed up by further data collection with a larger sample which will serve in enhancing the validity of the data analysis.

Although I have fixed goals, research questions, conceptual framework, and data collection methods, however, I do see how Maxwell’s and Loomis’s (2003) interactive design model will guide my research in a non-linear process where every component of my research will be connected and influenced by the other. I know that once I start collecting data, some divergences in my data might come up which will guide me to explore different venues about my topic. But this assignment has guided me in planning for my pilot study, and above all it assisted me in narrowing down my topic and thinking about research questions and methods for data collection. ☺

Ghania:

This seems like a very straightforward idea for a project, and I don't have any major concerns besides those I mentioned above. However, it seems fairly large and complex for a pilot study, and is well within the range of acceptable dissertations. What would it be a pilot study *for*? (Save something for the rest of your career.) I might have had more feedback if you had completed the other components in the design map, particularly the conceptual framework.

Grade: A

**References**

Greene, J. C. (2007). *Mixed Methods in Social Inquiry*. San Francisco, CA: Jossey-Bass.

Maxwell, J. & Loomis, D. Mixed method design: An alternative approach. In Abbas Tashakkori

and Charles Teddlie (Eds.), *Handbook of Mixed Methods in the Social and Behavioral*

*Sciences*, pp. 241-271. Sage Publications, 2003.