**Design-Based Research Plan**  
EDIT 803 - Spring 2012  
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**Statement of Problem**

K-12 Online Learning is quickly becoming a mandatory requirement for students in order to graduate with a basic high school diploma. This means that teachers must be prepared to engage students in Online Learning environments in the most efficient and effective way possible to ensure that content and concepts are sufficiently taught by the teacher and understood by the students. There is currently little to no research available in how K-12 students learn online and there are very little resources available to instruct educators on how to reach these students in this new medium. Despite the lack of research or education available, school districts and teachers will soon be expected to provide instruction for students that engages them in strong dialogue and a positive learning community. This means that there must be a program designed that will help teachers how best to facilitate online learning and provide students with the most likely possibility for success.

**Design-Based Research Goal**

The ultimate goal of this project is to understand what the most effective way is to teach teachers how best to facilitate K-12 online learning.

**Design-Based Research Outline**

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<td>• How well are teachers understanding facilitation in a K-12 Online learning environment?</td>
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## Design-Based Research Graphic Outline

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### ILDF Phase 1: Informed Exploration

The first phase of the ILDF framework for this project has led me to creating a detailed report of the current research into facilitating online learning (see attached literature review). There are currently a number of gaps within the current literature that require a number of mini-iterations within the Informed Exploration phase of the ILDF framework. While research has been conducted into graduate-level online learning, there is still little to no available research examining K-12 learners in this environment. Additionally, this gap in research extends to the best way for teachers to actually teach K-12 students as well. The gap in the research allows me the opportunity to begin a rudimentary design in the enactment phase (see below), but has created expanded research questions within the informed exploration phase. This phase will continuously be re-visited as I gain more insight through the enactment and local impact phases of the ILDF framework.

### Research Questions

What facilitation strategies do teachers use in the physical classroom?
How do students respond to teacher facilitation in the physical classroom?

### Methods
Experiential Analysis
The first in-depth analysis must come from my own experience, both as an online teacher and a classroom teacher. Having this taught in both environments, I can examine the characteristics uncovered in my literature review of graduate online learning and teacher facilitation and compare that to my own experience as a classroom teacher. In my initial design, I have already brought in my own experience as an online learner, but that does not necessarily fit well with K-12 online students. Additionally, my experience in online teaching has occurred in a 1:1 model between student and mentor, not as a class facilitator, so my experiences teaching online are more comparative to what the research tells me about facilitating online and the differences to the model I used. I have already incorporated the need of teacher-student interaction in online learning as a result of my own experiences in addition to the important of a community within the classroom, both of which were supported in my literature review.

Teacher Interviews/Focus Groups
The greatest source of information into what works for students is to ask the practitioners themselves, as they have the greatest amount of experience and background to offer on what strategies work best for students. My preference for teachers would be those who utilize a large number of group activities where students retain an element of leadership, similar to what the research tells us about how students learn online effectively. In order to accomplish this, I will need to survey teachers regarding their classroom structure and preferred instructional methods while looking for key words relating to online facilitation strategies. During these surveys, I will first be looking for teachers who offer group opportunities for students as well as chances for leadership, as the current research indicates the need for student-led facilitation in online learning. From those teachers selected, I will be looking for strategies that they use in the classroom to ensure a positive learning community as well as methods used to increase dialogue in the class. Finally, I can compare the results from these surveys with the current literature related to graduate and undergraduate online learning to ensure the strength and viability of the design build.

Classroom Observations
I would like to take the chance to observe classrooms that utilize group strategies and facilitation to see how students respond in these scenarios. While teachers may provide strategies and I can examine my own practice, only students can truly give me insight into how students act in these environments, giving me the opportunity to structure a stronger build for teachers. During these observations, I would be looking to see how teachers interact with their students, how they manage learning, especially during group and individual activities, and how they respond to disruption in learning. By doing this, I can examine how these skills translate relate to the facilitation used in the online learning environment. These observations would ideally occur approximately 3 or 4 times over a month long period.

ILDF Phase 2: Enactment
I have already started the first iteration of the Enactment phase by planning and designing the initial build of the Facilitating K-12 Online Learning course. This initial build is based off of the research uncovered during the Informed Exploration phase and laid out in the literature review. The initial build of the course focuses on providing students (future online educators) with a detailed background of facilitating and moderating in online learning environments while structuring live exercises for students where they can construct a concrete understanding of how best to apply the concepts learned in course readings, discussions, and activities. The initial build has the course broken into an 8 week program and students broken into groups of five. All students will read *Facilitating Online Learning: Effective Strategies for Moderators* by Collison and discuss the concepts from each chapter. Additionally, students will complete synthesis activities to help connect the readings to activities and strategies they can use in their own online courses. Each week, students will engage in two live facilitation exercises that afford them the opportunity to practice what they read. The first is a week-long discussion board exercise where one student will play the role of facilitator, leading group discussions and the weekly activity. In addition to the facilitation activity, students will engage in a weekly Blackboard Collaborate seminar where one student will be the moderator as students attempt to complete a challenge activity of the moderators choosing. The challenge activity will derive from their subject background so that they can experience subject-based online teaching. This design is based on the idea that students learn most effectively when there is a large amount of student-to-student interaction, a community of learners that co-create knowledge with the teacher, and active learning challenges to help situate learning. In addition to stressing these strategies, the course design is a chance to model for the students an effective method of online course design and instruction.

As with the Informed Exploration phase, the Enactment phase in a project of this scope contains a number of mini-iterations. I have already processed through one iteration after Expert Analysis and Review and will continue to modify and update the design based on feedback from multiple sources. This phase will need to be re-examined after the Local Impact phase as well to ensure that the design build meets the needs of future online educators.

**Research Questions**

How do help teachers understand their role in online learning and facilitating?
What is the most effective way to teach teachers how to teach and facilitate online?

**Methodology**

**Expert Analysis and Review**
Dr. Priscilla Norton and Dr. Dawn Hathaway have extensive expertise facilitating online learning, especially at the graduate level. Their critique and feedback has already proved invaluable as they modified my original build to include a moderation live exercise that coincides with the weekly facilitation exercises. Additionally, their experience helped me to
improve the group structure included in the original build to ensure that discussion and group activities are performed in a manner that challenges student thought while providing in-depth experience.

**Group Analysis and Review**
The design of this course is happening as part of a team effort to design a larger Certification and Masters program. With this in mind, the design of my course must work in conjunction with the other courses being designed for the program. The feedback and insight of the group of designers is also essential to ensure that the assignments, activities, and course structure do not conflict with the design of other courses.

**Designer Logs**
The final source of data for the Enactment phase is my own designer logs as they evolve during the construction process. These logs allow me to track my thinking as I uncover new evidence to support the course structure, develop new lines of instruction in relation to facilitation and moderation, and reconsider the course structure and design.

**ILDF Phase 3: Local Impact: Implementation**

Phase 3 of the ILDF Framework is the Local Impact: Implementation phase and it is tentatively scheduled to occur Fall 2013 with the first cohort of the IOLS program. This first cohort is expected to be relatively small in size, allowing me to use a mixed methods approach, gaining qualitative and quantitative data relating to the structure of the design.

**Research Questions**

How well are teachers understanding facilitation in a K-12 Online learning environment?
What are the strategies being perfected by teachers as a result of the design?

**Methodology**

**Student Surveys**
The first data source expected to be used is Student Surveys completed multiple times during the course. The purpose of these surveys is to gain insight into student thought and understanding related to the facilitation course and its structure’s ability to afford an understanding of facilitating and moderating. These surveys are planned to be measured using a Likert-like scale that can help measure the effectiveness of the course design.

**Discussion Board Analysis**
The course discussions boards will be examined using open coding to gain insight into students’ thoughts towards online facilitating and moderating and how they evolve through the course. This analysis will help me understand if the discussion board model is an effective method of instruction for the topic or if a new design is necessary to successfully teach the course.
ILDF Phase 4: Evaluation: Broad Impact

The Evaluation: Broad Impact phase is the final phase in the ILDF framework and is the chance for me to begin to see the impact of the course design. While I may never have a large enough group of students currently enrolled to classify it as broad impact or to afford random sampling, I can examine the effects the course design will have had on graduates of the program and provide me with a large sample of data to analyze from their own students.

Research Questions

What are the best facilitation strategies for teachers at all levels, K-12?
How do we ensure that the facilitation needs of students at all levels, K-12, are being met by teachers?

Methodology

Student Surveys
As the project increases in size, I want to continue student surveys, but expand them to not only incorporate current students in the course but students of the former students. This will allow me the chance to see how the design is impacting instructor function and provide me feedback on the structure and design of the course from a new perspective, possibly leading to a re-design if necessary.

Post-Course Observations
The evaluation phase gives me a chance to see the impact of the design on instructors as they teach and design their own online courses. By observing courses of previous students, I can gather qualitative data on their integration of facilitation and moderation as it relates to what was learned in the course. Combined with student survey results, I can gain a clear picture of what is being retained from the course.