Guideline for Final Project for EDD in Applied Learning Sciences

Overview

The nature of the final project for the Applied Learning Sciences in EDD reflects the core value of the program: i.e., we prepare students for careers that require expertise in multiple facets of human learning, reflected mainly in the following three areas:

- Learning: how people, as individuals, groups, or parts of an organization, learn;
- Design: the design, implementation, and revision of innovative learning environments that enhance human learning; and
- Assessment: the assessment of learning and the evaluation of individual, social, technological, and design factors that advance or impede learn.

Through the final project you, alone or in a group, will demonstrate in-depth knowledge in these three areas to a degree substantive enough to merit the awarding of the EDD degree.

In a nutshell, a satisfactory project should address a local problem or issue related to learning (e.g., designing and enacting effective instruction online). The project, through multimedia artifacts and/or written reports, will need to

- Conduct a sophisticated need analysis (e.g., learner analysis, task analysis, performance analysis) about addressing a situation/issue you selected;
- Lay out the theoretical foundations that you take up/are applying based on the field of the learning sciences;
- Describe the new design in detail, including its constituent components, how it is informed by the theory laid out, and how it was implemented;
- Collect, analyze, and present evidence that shows if/why the design is effective or not, and what revisions or implications would reasonably follow.

Process and Timeline

The two EDD seminars (TAL709 and TAL712) will facilitate the completion of the final project: TAL709 is used to try out a pilot version of the final project (see **Appendix A** for specific information related to TAL709); TAL712 is where the final project is formally carried out.

You will need to first enroll for 1 credit in TAL712. Depending on the progress of the first session, the remaining 2 credits will be taken as either one 2-credit course (compact mode) or two 1-credit courses (extended mode) in the following sessions/terms. How you take the remaining 2 credits would be determined based on your progress in the first 1-credit session, the nature of your project, and your own timeline.

You must get a grade of S (i.e., a B or better) for all three credits of the course. In the case that you get an U (i.e., a B- or less) on any credit of the course, you (a) may not proceed to enroll in later credits of the course and (b) is given a single opportunity to retake that credit of the course and to score an S. Repeated grades of U will result in your dismissal from the program.

Project Chair and Committee Composition

You need to reach out and work with a faculty member who is willing to serve as the Chairperson of your project. Your Chairperson is responsible for approving, monitoring, and signing off the work completed for the requirement.

Your final project requires an *Examining Committee* made up of at least three Graduate Faculty: (a) the Chairperson who could be the same or a different person from TAL709; (b) a second member from within the Department of Teaching and Learning; and (c) a third member who could be from outside of the Department of Teaching and Learning. In the event that a final project is submitted in a language other than English, at least two members of the committee must be literate in the project's language so that they can review the project without relying on the students' translations. A final, oral examination will be conducted in English. If a language other than English will be used in your final presentations, reports, or artifacts, it must be approved by faculty members who will review and grade it. You have to obtain each Examining Committee member's agreement to serve.

Team-based Project

If your project is conducted in a team, the size of the team cannot exceed four. Team-based projects should be more complex or more challenging than individual projects. In other words, they should actually require a team to be successful. Teams may work collaboratively to design and implement the project, to gather and interpret data, and to evaluate the results.

Each team needs to submit a team-based set of artifacts that is accompanied by a framing paper that describes the relative contributions of individual team members and how each person's contribution fits within a larger whole. Each individual's contribution must show substantive engagement and participation in the project. In other words, someone cannot "just" film a project and then expect to receive a degree in the Learning Sciences.

Project Components

A final project should include (a) one or more artifacts, (b) a report in a written or other media format to document the project, and (c) an oral examination.

Artifacts. An artifact can be thought of as being "anything" that is produced as part of your designed innovation. It could be
  - a functional mobile app (presented as a tutorial document with screenshots),

- a professional development curriculum (presented as a website with interlinked activities, documents, and videos),
- an online course (presented as an edited video with narrative voice-over that highlights what are included in the course).

These artifacts may be submitted in a language other than English, provided that it can be viewed and understood by at least two graduate faculty members from your committee. See **Appendix B** for examples.

Report. A written report, filmed presentation, or other media that is produced to describe the project. It should include the following elements:

- An introduction that:
    - Describes the context or learning environment you are looking at, including the population of learners;
    - Gives a problem statement and needs analysis that describes some sort of challenge or issue the learning design you are studying is trying to address;
    - Provides the goals or objectives of your project (what you hope to accomplish or learn).
- Applied theoretical foundations
    - Explain which theory or theories about learning, design, and assessment are informing your project and how they are being applied in your project.
- A concise review of literature and prior work[1] for your context/design
    - Describe the main findings from research studies that are relevant to your context and project design, and explain how you are using and building on what has already been studied.
- Procedure and methodology.[2]
    - Provide a detailed description of the design, how you implemented it, what data you collected (qualitative and/or quantitative) to evaluate the design and learning, and how you analyzed the data.
- Results and discussion
    - Write-up what you found in a way that connects your findings to your data as evidence.
    - Consider how and/or to what extent the learners were engaged with the design and what worked or didn't work to support their learning.
- Conclusion
    - Include a short summary of your main findings
    - Provide implications for your project (the "So what?"). Consider what context/design is "a case of," that is, if your project was to speak to other contexts/designs for learning.

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[1] We are not asking for a comprehensive literature review nor are we asking that what you review be strictly research (e.g., publishable in a research-based journal). But what you review and cite should have strong evidence in its support and it should help to frame how you are thinking about your project.
[2] For the first credit of the course, the methodology section is what you **plan to do**. For the final credit of TAL709, the methodology section is what you **actually did**.

- o   Offer several recommendations for next steps for the site.
- References.
  - o   These should be formatted APA Style.

Oral defense. Your will be examined, orally and in English, on your final project to ensure that you did the work being represented as your in the project and that you have demonstrated in-depth knowledge to a degree substantive enough to merit the awarding of the EDD degree. Normally, this is done through virtual, synchronous presentation (specific format and time duration will be determined between the student and the Examining Committee). Faculty will review the final project and base their questions on the project's relationship to the program's course work and core value.

Appendix A: Seminar I: TAL709

The artifacts and written report produced in TAL709 will serve as a qualifying exam and a proposal for the final project. Therefore, you must get a grade of "S" (i.e., a B or better) for all three credits of TAL709 in to enroll in TAL712. In the case that you get an "U" (i.e., a B- or less) on any credit of TAL 709, you (a) may not proceed to enroll in later credits of TAL709 and (b) are given a single opportunity to retake that credit of TAL709 and to score an "S". Repeated grades of "U" will result in your dismissal from the program.

In terms of procedure, you need to first enroll for 1 credit in TAL709. Depending on the progress of the first session, the remaining 2 credits will be taken as either one 2-credit course (compact mode) or two 1-credit courses (extended mode) in the following sessions/terms. How you take the remaining 2 credits would be determined based on your progress in the first 1-credit session, the nature of your project, and your own timeline. For Example: You are taking 1 credit for TAL709 in Summer II, Year-X, then you could either (a) take a 2-credit seminar in Fall Year-X (1st session), or (b) take the two 1-credit seminars in consecutive sessions/terms, e.g.,

- 1 credit for Fall Year-X (1st session)
- 1 credit for Fall Year-X (2nd session), or 1 credit for Spring Year-X+1 (1st Session).

The instructor for TAL709 will be the default person to serve as the Chairperson of your project conducted in the course. To ensure continuity, it is also encouraged, but not required, for you to seek an alternative advisor at this stage who may serve as your Chairperson for your final project (see guidelines for Final Project). If you request a different faculty member to serve as the Chairperson, you have to ask that individual, and obtain his/her consent to serve.

Appendix B: Examples of Design Artifacts

Example 1. Mobile Learning Platform using the Format of Social Media

- Many studies have reported the benefits of using social media as a medium for learning. These benefits may include increased engagement, collaborative learning, parental involvement. However, popular tools such as Facebook, Twitter, Blog, Google+, etc. are not designed with young learners in mind, thus limiting their use in the classroom setting.
- A collaborative constructivist view of learning recognizes the inseparable relationship between personal meaning making and the social influence in shaping the educational transaction. Computer (Technology) Supported Collaborative learning's unique ability can bring together a community of learners, unrestricted by time or place. It leads to the opportunity to acquire knowledge from the overflow of information collected in the process of collaborative work and to positively affect students' intrinsic motivation through the enhancement of psychological needs (e.g., autonomy, relatedness, and competency).
- The unique features from this mobile learning platform are as follows: 1) Building Broad Learning Community: As signing up the app with the users' Social Media accounts is that the app can reach the contact list from various social media so it makes the app be more flexible in terms of sharing information and being connected to others, which is the most significant factor in this mobile platform in term of sharing academic problems and asking others help, 2) Learner-centered Learning Approach: This platform is designed to lead students' learning behavior to learner centered learning, in which the emphasis is on guiding and supporting students as they learn to construct their understanding of the culture and communities of which they are a part. For example, simple user interface design which offers users to upload their questions and receive answers from the community with various sociocultural aspects and keep the track of their status through the data accumulated by Learning Management System.
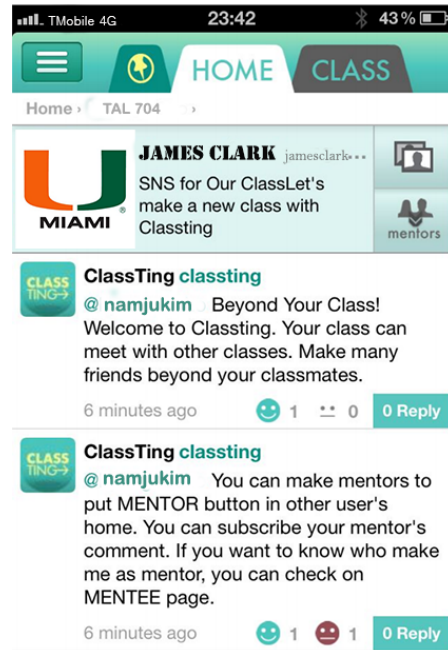
Example 2. STEM Summer Program

- Students are learning and developing disciplinary contents and practices in schools. However, they do not get to practice as much interdisciplinary and integrated learning that is increasingly needed in the twenty first century.
- The design team takes an integrative perspective on learning that combines cognitive and sociocultural traditions, emphasizing the connected nature of STEM knowledge and practices as well as the sociocultural aspect as they develop distinctive identities as learners.
- In terms of curriculum, the summer program engages middle school students in integrated and collaborative learning in the STEM fields through hands-on activities, multimodal composition tutorials, peer critique and presentations, and guest lectures by the professionals. All these activities are driven and organized around their final project in which they work in small groups to produce multimedia sci-fi narratives. A unique design feature of the project is that each student will contribute to the project through differentiated roles they select, including being the group's writer, scientist, or designer.
- The specific artifacts include the program schedule, lesson plans, tutorials, and sample student artifacts that are uploaded on this website (not included here).

[sample website here]