

IU Learning Sciences Early Inquiry Project Policies and Expectations

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Goal: The early inquiry project provides students with an opportunity to lead an authentic research project prior to the dissertation.

Timeline: The early inquiry project must be approved by the Learning Sciences members of the students' POS committee **prior to sitting for the qualifying exam.**

The early inquiry project can take place anytime prior to the qualifying exam. However, the expectation is that this work begins at the beginning of the students' 2nd year in the program. Early Inquiry projects typically take at least one year to complete, including the proposal through to approval of the final written product.

Note that the planning and data collection process should take place outside of the students' GA responsibilities and general coursework with the exception of the course that is identified as the early inquiry course. When the project is ready to be submitted for approval by the POS committee, the student will, however, need to enroll in the appropriate early inquiry course credits (typically P573 apprenticeship or P599 independent study) during the semester in which they will be seeking official approval for their completed project from the POS committee. This is not an "additional" course, and simply involves noting the appropriate credit in the POS (e.g., the student can indicate that 3 additional credits of P573 Apprenticeship in the Learning Sciences constitute the early inquiry experience and then label this as such. Note that this is in addition to the 12 credit hour minimum required in the current POS). Note that the student should expect to have an "I" or an incomplete in the associated course until this requirement is met.

Approval process: The students' advisory committee (i.e., the POS committee from within the Major) is required to approve of the Early Inquiry Project. This means that the two core Learning Sciences members must approve of the proposed work as well as the final manuscript.

Approving the proposal: The proposal must be approved by the two POS committee members. They can do so by signing the final proposal which will simply indicate the names of committee members, and the date of their approval of the proposed project to complete the requirements of the "Early Inquiry Project". The approval document will then be shared with the CEP admin to ensure that a copy is on record.

Approving the final manuscript: The final research manuscript that results from this study must be read and approved by the two LS faculty on the student's advisory committee. A form for this purpose is available online at the Office of Graduate Studies website (see current p. 39). If there is a disagreement between the two committee members that is not easily resolved, an impartial third reviewer will be identified by the program head to determine whether or not the project is approved (e.g., the majority vote wins in this case). The final grade for the course (once the

early inquiry project has been completed) is filed by the faculty of record for the course.

Course enrollment: The early inquiry experience may be implemented through an independent study course (e.g., a P590 course), through a master's thesis (e.g., a P599 course), or through a departmental research seminar (e.g., an additional P573 course over the minimum of 12 credits of required apprenticeship work). The exact course number is negotiated with your primary supervising faculty member (frequently the chair of your POS committee). Enrollment in this course should happen near the end of the major but be completed prior to the qualifying exams. Note that the student should expect to receive an incomplete in the course until all requirements for the course have been met.

Faculty role and expectations:

General: The general expectation is that the primary advisor/chair of the student's POS will serve as a mentor/course supervisor, working closely with the student to support their efforts in designing and completing the proposal and the final project. In contrast, the expectation is that the second committee member will have minimal involvement except at the two key approval steps. These steps and other feedback can be solicited over email.

Feedback and turn-around: The faculty members will only be expected to provide feedback when school is in session (e.g., not over breaks or the summer period). Within these time-frames, a 1-month turn-around time should be expected for the proposal and final manuscript unless the committee members have explicitly discussed an exception. This also means that students should plan to seek final approval a minimum of 30 days before the final day of the semester.

Requirements of the project:

General: The Early Inquiry Project is assumed to be a student-led and initiated effort to design, conduct, analyze, and then write about an original, data-driven research study. A simple literature review is not sufficient, nor is a design project with no associated original/data-driven research. The intention is for the student to gain relevant experience in the full range of research activities that will likely make up their dissertation, including the design of the study, literature review, data collection, analyses, and write-up but be on a comparatively smaller scale than what is expected at the time of the dissertation.

Scope of project: While the expectation is that the student will be responsible for taking initiative on this project, many students will work on a project that is related to an existing effort by their advisor or another faculty member. In these cases, it is up to the advisory committee to determine what constitutes "independent effort" and then to document this agreement as part of the process. As a general guideline, however, the student should do the intellectual work necessary to be a lead author on this work (i.e., meaning that the student should be playing a role on the paper that would generate first or second authorship in the final manuscript). The final order of authorship is determined in accordance to APA guidelines, the student's current writing ability, and in conversation with the supervising faculty.

Also note that the Early Inquiry Project cannot be part of the dissertation. It may involve related work and in many cases may inform the dissertation (e.g., a pilot study). However, it must be clear that these are two distinct and separate studies. If there are any questions, it is recommended that the student clarify the relationship in advance as part of the proposal.

Early inquiry proposal: The expectation is that the student will summarize their plan of research for their Advisory committee prior to beginning the project and will receive approval. The suggested minimal proposal length is a 3-5 page single-spaced document. The exact format is at the discretion of the advisory committee, but a suggested model is:

1. Abbreviated literature review with a clear problem statement
2. A clear methods section
3. A design section if appropriate
4. Expected results
5. Significance
6. If the project is related to an existing faculty project, as will often be the case, the student should also prepare a short note outlining how this work differs from and extends the faculty member's work. Student responsibilities should be clearly outlined.

This document may be approved over email, though the advisory committee has the option of requesting a meeting / presentation to ensure that the project and expectations are clear. Both LS members of the advisory committee must approve the project in advance of its completion .

Substituting or replacing an early inquiry project: There are some circumstances where a student may be eligible to use a previously completed project, such as a masters thesis from a prior institution to satisfy the requirements of the Early Inquiry project. Alternatively, students may wish to change the plan / scope of their early inquiry project (e.g., if they join a new research project and which to build on that work instead). In both cases the student must receive approval from the two Learning Sciences members of the POS committee to do so. Work completed outside of IU will only be accepted for this requirement in the case where the two committee members agree that the scope and content of the project are relevant to the field of the Learning Sciences and are sufficiently rigorous to replace the research experience that is the intention behind this project.

Final early inquiry manuscript: The manuscript has to be of *publishable quality*, though it does not have to have been accepted for publication to constitute completion of the Early Inquiry Project requirements. An indicator of the final manuscript's publishable quality is that it contributes to our understanding of the learning sciences in a meaningful way, meaning that it is of quality to submit to reputable journal (however, it can be under review and not "accepted for publication" or "in print"), published in a high quality conference proceedings (such as a full paper in the CSCL/ICLS proceedings), or other suitable outlet as determined by the committee. The Early Inquiry Project supervising faculty will determine (in coordination with the student) when the publication is of high enough quality for submission. Manuscripts are known to have

been rejected by a journal or conference should be revised based on the journal / conference feedback prior to approval. If this is known before the faculty have approved the early inquiry project, they may request revision in line with the feedback from the submission at their discretion.

The identification of an appropriate venue for each project is left to the discretion of the advisory committee. However, the following requirements must be met for all project manuscripts:

- The final manuscript needs to be a coherent, self-contained, data-driven piece (e.g., it cannot be a proposal).
- A destination needs to be identified in order to identify the appropriate audience and framing. In final Early Inquiry Proposal, the student and committee should determine an appropriate endpoint for the project and the conditions in which the project is complete (e.g., whether it needs to be officially under review at a journal to constitute complete).
- The final manuscript needs to be between 5000 and 8000 words (the length of a full paper at ICLS / CSCL on the low end, and typical Journal Article on the high end).
- The student must take a “lead” role in preparing this work, and in preparing the manuscript required for approval of the Early Inquiry requirement. It may, however, be the case that the student is not first author on the submitted manuscript(s) because the advisor or other collaborators take on more of a leadership role in moving the manuscript into final publication form. This should be discussed by the student and the committee in advance, if possible, and clarified in writing prior to completion of the project to avoid confusion. General APA order of authorship guidelines will be followed.
- Any other remaining details are left to the discretion of the advisory committee.

Note:

The official language from the current graduate handbook (April, 2012) is as follows:

“In addition to the inquiry core course work, 6 credit hours of inquiry coursework are required in the major. One of these inquiry courses must be an **early inquiry experience**, during which a student carries out an actual research project, including the collection and analysis of data to answer a research question, and the writing of a research manuscript. This research is to be prior to the dissertation and not a direct part of the dissertation research. The early inquiry experience may be implemented through an independent study course (e.g., a 590 course), through a master's thesis (a 599 course), or through a departmental research seminar. Each student must carry out an independent research project. The research manuscript that results from this study must be read and approved by the student's advisory committee. A form for this purpose is available online at the Office of Graduate Studies website.” (see p. 39)