COMPREHENSIVE EXAMINATION

Revision 11 December 2, 2010

Objectives

The Ph.D. Comprehensive Examination should be regarded as one of the requirements for a doctoral degree in the Learning Sciences¹ program. It consists of a written and an oral component. The overall objective of the examination is to ensure that Ph.D. candidates have sufficient knowledge in their area(s) of study and that they are able to:

- select relevant and current literature(s) to inform their doctoral research
- conduct critical literature reviews
- prepare scholarly manuscripts and presentations for dissemination
- instruct others in their field of study

Thus, the examination serves an important function to certify that students (a) have mastered a body of knowledge and a theoretical framework for conceptualizing that knowledge, (b) understand and can apply research methods currently being used in the field, (c) have the ability to recognize gaps in current knowledge, theoretical frameworks, and methods; and (d) have acquired sufficient knowledge and skills to actively contribute to the Learning Sciences field.

In addition to this certification function, the examination serves as a "lead up" to the dissertation, preparing doctoral students for their dissertation work by (a) facilitating their development of a solid conceptual base for dissertation research in students' areas of study, and (b) insuring that students' knowledge is sufficiently broad and conceptually structured to provide a foundation for their current research and future scholarly activities.

The Ph.D. Comprehensive Examination, therefore, has three specific objectives that assess the breadth and depth of conceptualization of a candidate's knowledge in his or her field(s) of study.

- 1. Assess a candidate's ability to situate the problem(s) being studied in the dissertation research within the larger intellectual and research contexts in the field;
- 2. Assess a candidate's ability to critically evaluate research, review the research literature, and identify gaps or unsolved problems in the field;
- 3. Assess a candidate's ability to effectively communicate and articulate knowledge and research approaches in the field of study through writing and oral discussion.

The examination does <u>not</u> explicitly include assessment of knowledge and skill in

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¹ The same applies to Instructional Psychology and Applied Cognitive Science programs, which have now been merged into one program – Learning Sciences.

research design and statistical data analysis or skill in face-to-face classroom instruction. The first of these is more adequately assessed through performance in the required statistics courses and in the planning, execution, and defense of the dissertation research itself. The second is best assessed through a student's performance as a Teaching Assistant, Co-Instructor, Sessional Instructor, or in the Teaching and Learning in Higher Education (EDPH-689) course.

Comprehensive Examination Committee

- *Composition*. The Comprehensive Examination Committee is normally comprised of three faculty members from the Learning Sciences program, one of whom is the candidate's Ph.D. research supervisor. For the Health Professions option, the third member of the committee may be appointed from outside the program.
- Formation. The Committee is formed as follows: The student identifies potential members and discusses them with the supervisor. Once agreement is reached, the supervisor invites potential members to serve. Once potential members accept the invitation, the supervisor completes the Comprehensive Examination Registration form, informs the Program Director, and files the form with the Program Coordinator.

Assessment Tasks: Content and Format

As a general principle, the examination process is intended to enable valid and authentic assessment and contribute to a student's preparation for the dissertation research. Thus, there are two parts to the examination assessment:

Part 1: The Comprehensive Paper

The Comprehensive Paper consists of a critical review of the research and scholarly literature in the candidate's major area (Learning Sciences) pertaining to his or her dissertation research. The candidate's task is to situate his or her research problem within the context of theoretical and empirical literature. The paper should: (a) demonstrate breadth and depth of knowledge and conceptualization of the field, (b) present a critical evaluation of the research and identify gaps or unsolved problems in the field, (c) situate a research approach and problem within its larger intellectual and research context and, (d) demonstrate skill in effective written communication.

The Paper should not exceed 50 pages (double spaced, excluding bibliography).

Part 2: Oral Discussion of the Paper

Following the submission of the Comprehensive Paper and its appraisal by committee members, students are given the opportunity to discuss the ideas presented in the Paper in a natural, interactive context, and to respond to questions and issues raised by committee members. This is referred to as the Oral Discussion Meeting. In this meeting, the student is given the opportunity to further elaborate on the Paper and to respond orally to written formative feedback provided by committee members.

Normal Timetable for the Comprehensive Exam

- The Comprehensive Examination is normally done in Year 3 of the Ph.D. program. This corresponds with the 4th term of the Advanced Research Seminar (EDPE 707).
- The student prepares the initial question during the 3rd term of the seminar, in collaboration with peers, doctoral research seminar instructors, and the research supervisor.
- The final question is submitted to the Comprehensive Examination Committee.
- Once committee members approve the question(s), the supervisor ensures that the Comprehensive Exam Registration form is signed by all committee members and is given to the Program Coordinator.
- The student registers for the Comprehensive Examination (EDPE-708) through MINERVA.
- The Paper is written during the 4th term of the Doctoral Research Seminar. During this period, drafts of the paper can be discussed and critiqued in the Seminar group.
- Six to eight weeks after registering for the Examination, the student may submit a draft of the Paper for formative feedback from the committee.
- Once the Paper is completed, it is submitted to the Program Coordinator. This will normally be the end of the winter term or in exceptional cases, another designated deadline 3 months after the commencement of the task.
- The Program Coordinator distributes the Paper to the committee members.
- Feedback from the committee members is given in a timely manner (normally two weeks). The student should verify with the committee at the time of registration that committee members can provide timely feedback.
- The supervisor summarizes the feedback from committee members and highlights issues that the student is expected to elaborate in order to complement what has been done in writing. This written summary of formative feedback is sent to the student and the committee within one month following the submission of the Paper.
- An Oral Discussion is scheduled no later than 2 months from the date the student submitted the Paper to the Program Coordinator.
- In case of illness, a medical leave may be taken and the process will then restart within

the time frame provided by Graduate Faculty. A letter from the student and a written medical certificate must be submitted to Graduate Faculty, to the Program Director and to the supervisor.

Evaluation Criteria

Comprehensive Paper:

- 1. Selection of the literature
- 2. Grounding in theory pertinent to the area of research
- 3. Critical review of pertinent research including methodology, analysis, comparison, and, synthesis, leading to identifying gaps and limitations
- 4. Linking the reviewed research to a general research problem to the broader structure of the field
- 5. Effectiveness of written and oral communication

Procedures for Assessment

- Each committee member prepares an individual written evaluation of the Comprehensive Paper and sends this to the supervisor.
- The supervisor summarizes and integrates the evaluations and circulates the summary to committee members for approval. No final assessment is made at this time. The summary report is considered formative feedback and, where necessary, should include suggestions that the student might address to complement what has been expressed in writing.
- The summary is sent to the student to allow preparation for the Oral Discussion.
- The Oral Discussion concludes with a final summative decision made by the Comprehensive Examination Committee, based on quality and completion in relation to the above criteria: Pass, Conditional Pass, Fail. Each of these is further detailed below.
- Successful completion of each part is required for a Pass.
- The committee then asks the candidate to leave the room and after a brief discussion communicates the decision to the student immediately in person. This decision is to be conveyed to the student in writing within a week of the Oral Discussion date. Only in the case of a pass, a copy of the signed Comprehensive Examination Decision form can be given to the student instead of a written notification.
- The supervisor deposits the Comprehensive Examination Decision Form with the Program Coordinator.

Explanation of Assessments

- Pass. Indicates the student has met the quality and completion criteria. The Comprehensive Examination Committee signs the appropriate form. The supervisor gives this form to the Program Coordinator who enters the Pass grade onto the transcript.
- Conditional Pass. Indicates that committee members have identified insufficient elaboration of an aspect of the process. The assessment, reasons for the decision, and specifications for revisions will be outlined by the committee and provided to the student orally at the meeting and in writing. There must be sufficient detail to allow understanding of the decision and of the task to be completed. An INTERNAL MEMO ONLY will be sent to the Program Director, and the Program Coordinator who will enter an HH in the transcript. The student will be given no more than three months to address comments and make specified revisions to the original Paper submission. The committee will then reevaluate and may suggest a second Oral Discussion if necessary. Evaluation criteria remain the same.
- Failure. Indicates the student has been unable to satisfy criteria in multiple contexts (e.g., review and synthesis of literature, interpretation of empirical research and theory, presentation and writing, etc.) A failure in any one part constitutes failure on the Examination. A corresponding grade is entered in the transcript. In such a case, the student can invoke his or her right, extended by The Office of Graduate and Postdoctoral Studies, to retake the exam. In this instance, the same procedure described above is to be followed and the student will be informed orally and in writing of the time frame, dates, nature of exam, and committee membership.

STUDENTS AND SUPERVISORS ARE STRONGLY ADVISED TO CONSULT THE GPSO COMPREHENSIVE EXAMINATION GUIDELINES AVAILABLE FROM: http://coursecalendar.mcgill.ca/gps200809/wwhelp/wwhimpl/common/html/wwhelp.htm?context=online_GPSO_Bound_200809&file=online-GPSO-Bound_200809-3-097.html