

PROGRAM ASSESSMENT REPORT

Unit: Psychology
Program: Experimental Research Program (Graduate)
Completed by: Albert F. Smith
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Introduction

The Experimental Research Program (ERP) in psychology emphasizes basic and applied research skills, to be developed through an individually-tailored program of study that includes both core (required) and elective courses and culminates in the completion of a thesis. The goals of the program, as stated in the university bulletin, are for students to develop skills in research design and analysis; broad knowledge of substantive areas of psychological research; and expertise in one research area.

Every student is expected to become involved in research when he or she begins the program and to continue this involvement during his or her course of study. Ideally, every student participates in a faculty member's research program; after developing appropriate knowledge and skills about this domain, the student demonstrates expertise by completing a thesis (with the advice and supervision of that faculty member).

Goals, Goal-specific Outcome Measures, Research, and Findings

The goals of the program were formulated when the program was first developed. However, the particular articulation and enumeration of the program goals found in this report was formulated in October, 2002, by the Experimental Research Program Committee, which consists of core faculty in the Experimental Research Program. The goals have not been reviewed or modified since fall, 2002. The outcome measures used to assess whether the goals are being accomplished were specified during fall, 2002; a subsequent modification involved eliminating one outcome measure.

During the 2006-2007 academic year, the activities of the Experimental Program included offering a series of Grand Rounds presentations for students and faculty during the Fall term, thesis-advising, offering several courses, and reviewing applications and admitting students for the Fall, 2007, term. As we noted one year ago, during the 2004-2005 academic year, one faculty member whose primary affiliation had been with the Experimental Program died after an extended illness, and, at the end of that year, two faculty members whose primary affiliation was with the Program left Cleveland State University. Given the number of professional leaves of absence that were planned for 2005-2006, the program faculty seriously considered not admitting students for the Fall, 2005, semester. Ultimately, students were admitted, but not recruited, and only one student entered the program. In Fall, 2006, six students entered the program, and three

faculty members actively involved the program joined the Psychology Department, so we have just finished the first year of rebuilding the program..

Goal #1: Students will demonstrate the ability to carry out and interpret statistical analyses of psychological (and other) data, describe studied samples, make inferences, and make statements about limitations on inference.

Outcome Measure #1: Students must complete courses in Univariate Statistics and Experimental Methodology and Advanced Data Analysis and Computer Applications (PSY 511, PSY 611) with “B” average.

Research completed: Evaluation of student transcripts.

Findings: We reported in June, 2006, that of the 22 students who have begun the program between Fall, 2002, and Fall, 2006, 17 have achieved this criterion. Of the 5 who have not achieved this criterion, 3 are no longer in the program, 1 has taken the step recommended to her to demonstrate the required ability, and 1 has not completed these courses for medical reasons.

As of December, 2006, this last student had partially completed this requirement.

Of the six students who entered the program in Fall, 2007, all six have achieved this criterion.

Outcome Measure #2: Students must complete an empirically based thesis which is evaluated by three faculty experts on the basis of standard thesis requirements (development of testable hypotheses; review of relevant literature; development of appropriate methodology; collection and analysis of data; drawing appropriate conclusions).

Research completed: Evaluation of student transcripts.

Findings: To complete the program, each student must complete a thesis. Four students completed theses during the 2004-2005 academic year. Three students completed theses during the 2005-2006 academic year. Five students completed theses during the 2006-2007 academic year.

Outcome Measure #3: Students will be required to pass a data analysis exercise. Proficiency will be determined by two faculty with expertise in methodology and statistics.

Research completed: During Spring, 2005, one of the course requirements of Psychology 611 (the second course in the two-term sequence of data analysis courses) was to complete a small data analysis project. Students were provided with a data set and asked to carry out appropriate analyses and to draw conclusions. These projects were evaluated by the course instructor, but were not evaluated by a second faculty member.

Findings: The Spring, 2005, iteration of this outcome measure was a pilot test of this measure. It should be implemented as a free-standing exercise for students beginning their second year of the program, and evaluated by at least one additional faculty member. This step was not taken during 2005-2006 since we had no new second-year students who had not participated in the pilot project, nor was it taken during 2006-2007 because we had just one second year student. We plan to implement this in Fall, 2007, when we will have a cohort of six students beginning their second year.

Goal #2: Students will demonstrate advanced knowledge in at least three domains of the field of experimental psychology and/or cognate areas.

Outcome Measure #1: Completion of a minimum of five psychology content-based graduate-level courses with at least a B average.

Research completed: Evaluation of transcripts of students who apply for graduation.

Findings: All students who completed the program during the 2005-2006 and 2006-2007 academic years completed appropriate coursework approved by the Experimental Psychology program committee with the required grade average.

Outcome Measure #2: Students completing graduate courses will display significantly more knowledge/skills (Cohen's $d > .8$) in the area than students starting the course.

Research completed: Beginning of course vs. end of course comparisons of student knowledge have been made in some courses.

Findings: Courses appear to be effective by this measure, but sample sizes are small, and, at present, there are very few courses that are specific to this program that have instructors who participate in this type of measurement.

Goal #3: Students will acquire specialized knowledge in at least one area of experimental psychology.

Outcome Measure #1: Satisfactory completion of thesis prospectus. Three faculty experts serve on thesis committee.

Research completed: Evaluation of student files. Students may not register for thesis credit until they have successfully completed a prospectus.

Findings: During 2005-2006, three students successfully completed a prospectus. During 2006-2007, one student successfully completed a prospectus.

Outcome Measure #2: Satisfactory completion of thesis. Evaluated by three faculty experts on basis of standard thesis requirements.

Research completed: Evaluation of student transcripts.

Findings: During 2005-2006, three students satisfactorily completed theses. During 2006-2007, five students successfully completed theses.

Goal #4: Students will be able to design and carry out a research project on a problem in experimental psychology that has the potential to augment psychological knowledge.

Outcome Measure #1: Satisfactory defense of thesis prospectus. Three faculty experts serve on thesis committee.

Research completed: Evaluation of student files. Students may not register for thesis credit until they have successfully completed a prospectus.

Findings: During 2005-2006, three students successfully completed a prospectus. During 2006-2007, one student successfully completed a prospectus.

Outcome Measure #2: Satisfactory defense of thesis. Evaluated by three faculty experts on basis of standard thesis requirements.

Research completed: Evaluation of student transcripts.

Findings: During 2005-2006, three students successfully completed theses. During 2006-2007, five students successfully completed theses.

Goal #5: Students will demonstrate the ability to present psychological research to others.

Outcome Measure #1: Satisfactory defense of thesis prospectus to thesis committee.

Research completed: Evaluation of student transcripts.

Findings: During 2005-2006, three students satisfactorily defended a prospectus. During 2006-2007, one student satisfactorily defended a prospectus.

Outcome Measure #2: Satisfactory defense of thesis to thesis committee.

Research completed: Evaluation of student transcripts.

Findings: During 2005-2006, three students successfully defended theses. During 2006-2007, five students satisfactorily defended theses.

Outcome Measure #3: Student presentations of their thesis prospectus or their findings from their thesis research to faculty and students during ERP Grand Rounds.

Research completed: ERP faculty have discussed how to involve students in presenting research and have been asked about opportunities for thesis students to present their research to others. Students have not had the opportunity to present research to their peers and faculty other than their thesis committee members.

Findings: For 2005-2006, ERP Grand Rounds was suspended due to a variety of other emergent departmental needs. No presentations were made by either students or faculty. During 2006-2007, ERP Grand Rounds met regularly during the Fall term, but all presentations were by faculty. We anticipate that second-year students will make presentations during Fall, 2007.

Outcome Measure #4: Students will maintain a dossier that includes presentations they make in courses that require presentations.

Research completed: Incoming students in Fall, 2004, were instructed explicitly to maintain portfolios. This instruction was reiterated to students who entered the program in Fall, 2006.

Findings: Students have maintained portfolios.

Outcome Measure #5: Student presentations of research at psychological conferences—oral or poster format—will be included in students' dossiers.

Research completed: Incoming students in Fall, 2004, were instructed explicitly to maintain portfolios. These instructions were reiterated to students who entered the program in Fall, 2006.

Findings: Students have maintained portfolios. Rubrics for classification of contents are being developed. Several students have presented research at psychological conferences and at College of Science Research Day.

Outcome Measure #6: Publications with ERP students as authors will be included in students' dossiers.

Research completed: Incoming students in Fall, 2004, were instructed explicitly to maintain portfolios. These instructions were reiterated to students who entered the program in Fall, 2006.

Findings: No student who entered the program since Fall, 2004, has co-authored a publication.

Goal #6: Graduates will develop skills and knowledge that will allow them to be successful in getting into post-MA training programs and/or getting jobs related to their training or to better fulfill the responsibilities of their current employment.

Outcome Measure #1: Graduates will obtain employment related to the field of experimental psychology or will be accepted into post-MA training programs.

Research completed: In 2004, surveys were sent to recent MA graduates to determine their employment status and/or success in getting into post-MA graduate training programs. Subsequently, post-graduation activities of MA earners have been tracked.

Findings: The majority of graduates responding to the survey indicated that they have research-related jobs or have been accepted into post-MA graduate training programs. Of the 14 students who have earned MA degrees since August, 2002, 10 are known to be in post-MA educational programs, in jobs related to their MA training, or are better fulfilling the responsibilities of employment that they had while in the Experimental program.

Outcome Measure #2: The students' curriculum will be consistent with their long-term goals.

Research completed: In the 2004 survey, students were asked if coursework they had completed was relevant to their long-term educational goals.

Findings: Some graduates suggested that more flexibility in their coursework would have enhanced their obtaining desired goals.

Goal #7: Graduates will be satisfied that their training was successful in meeting their educational needs.

Outcome Measure #1: Expression by graduates of satisfaction with educational experience.

Research completed: In 2004, surveys were sent to recent MA graduates to determine their views on their educational experience, e.g., challenge of the coursework, satisfaction with their experience, faculty meeting their educational needs, preparation for employment or further graduate work, etc.

Findings: The majority of graduates responding to the survey reported that their coursework was moderately challenging, that their experience was satisfactory, that the faculty fulfilled their needs, and that their training prepared them appropriately for employment or further graduate training.

Review and Actions

Review. The ERP Committee reviewed assessment data and student progress during meetings and email discussions November, 2004, and March, 2005.

Actions. The content of PSY 611, *Advanced Data Analysis with Computer Applications*, was modified: Rather than emphasizing multivariate data analysis, the ERP decided in November, 2004, that students might be better served by a continuation course that covered experimental design more fully than is possible in PSY 511, that integrated this with fuller coverage of analysis of variance than is possible in 511, and that covered multiple regression in a way that clarified its relationship to analysis of variance. This content was included in PSY 611 during Spring, 2005. Because only one student entered the program in Fall, 2005, PSY 611 was not offered in Spring, 2006, so this experiment was not continued.

During Spring, 2005, ERP began to implement a cultural shift to publicize thesis defenses to all department faculty (regardless of whether those faculty consider themselves to be affiliated with ERP). The cultural norm in this department has been for students and their committees to organize a thesis defense that is not publicized. The ERP views completion of a thesis as being the most significant demonstration that a student has acquired knowledge and skills in the program, and intended that all thesis defenses be publicized by Fall, 2005. This norm has been slow to take hold, but we nevertheless intend to continue to strive to achieve it.