

Programmatic Assessment

Term: Spring 2023

Department: Psychology

Course: PSY 431

PLO: #2 Demonstrate knowledge of basic concepts and methods of psychological research; this includes defining or explaining concepts, collecting and analyzing data, presenting data in tables, conducting a scientific literature search, preparing a scientific research proposal, conducting research under the supervision of a faculty researcher.

Course SLO: Same as above.

Artifact: Research Proposal

Students were asked to prepare a research proposal on a nervous system disease of their choice. All topics were reviewed for approval by the instructor prior to submission. Students were expected to submit proposals that outlined the problem and how the researcher (student) planned to address the problem. The proposal was to have been written in the format of a National Institute of Health Research Grant with a minimal length of 10 pages. Format to be followed: (1) specific aims (1 page); (2) research strategy including a narrative stating why the research is significant, how it contributes to human health. How this project involves innovation in studying brain disease, and the approach to be taken (2 pages); (3) aims in terms of subjects and all necessary resources with an explanation of how resources would be utilized in the experiment (2-3 pages); (4) expected or anticipated results and/or pitfalls in relation to the central question and any potential problems or limitations of the research design (1-2 page); (5) future directions which is an explanation of how this study would contribute to an increased knowledge of the field of study and what future studies it may facilitate (1-2 pages); and (6) literature cited, minimum of fifteen references.

Rubric Used:

PLO 2	SKILL: Students can utilize peer-reviewed research on a specified topic and develop a proposed research study that addresses the topic.
4 = Highly developed	Proposal exhibits exceptional insight into the current research and develops a sophisticated and original hypothesis.
3 = Minimum competency	Proposal exhibits adequate insight into the current research around topic and formulates a logical hypothesis.
2 = Emerging competency	Proposal exhibits little insight into the current research or is based on a limited search of current research. While the proposal attempts to formulate a project, the hypothesis may not be functional.
1 = Needs improvement	The proposal reflects little insight into the current research on topic. Proposal may lack a proper hypothesis.

Methodology and Data: Two readers from the department served as evaluators and read ten ($n = 10$) proposal using the rubric above.

Research Proposal	Reader 1	Reader 2	Average
Proposal 1	3	3	3.00
Proposal 2	2	2	2.00
Proposal 3	2	2	2.00
Proposal 4	4	4	4.00
Proposal 5	4	4	4.00
Proposal 6	3	3	3.00
Proposal 7	3	3	3.00
Proposal 8	3	2	2.50
Proposal 9	3	3	3.00
Proposal 10	4	3	3.50
			AVG 3.00 Reader 1: 3.10 Reader 2: 2.90 Reader agreement 80%

Observations and recommendations:

- The Pearson correlation between the raters is .84. Coupled with the reader agreement of 80%, this indicates excellent reliability between the readers.
- The ratings, on average, indicate that students are at the “minimum competency” level for this learning outcome. In other words, they are able to provide adequate insight into the psychological literature and formulate a logical hypothesis based on this literature.
- 20% of the students were at the “emerging competency” level, meaning that they provided little insight into the literature or had trouble developing a reasonable hypothesis.
- 30% of the students were at the “highly developed” level, meaning that they provided clear insight into the literature and were able to develop strong, original hypotheses using this literature.
- Notably, no students were at the “needs improvement” level.
- The main recommendation from these findings is that faculty should provide more opportunities for practicing the skills captured in this learning outcome. If they don’t already require at least a basic writing assignment that involves these skills then they are highly encouraged to consider this addition to their courses.