SAINT LOUIS UNIVERSITY.

Program Assessment: *Annual Report*

Program(s): MS in Health Outcomes Research and Evaluation Sciences

Department: Center for Health Outcomes Research

College/School: Center for Health Outcomes Research

Date: June 1, 2018

Primary Assessment Contact: Dr. Paula Buchanan

1. Which program student learning outcomes were assessed in this annual assessment cycle?

   Outcomes 1 (Effectively review, summarize, and synthesize literature.) and 4 (Effectively communicate study results) were assessed this cycle.

2. What data/artifacts of student learning were collected for each assessed outcome? Were Madrid student artifacts included?

   The final papers from ORES 5300: Foundation of Outcomes Research I and ORES 5320: Scientific Writing and Communication were utilized for outcome 1.

   Assessment of outcome 4 utilized the final paper of ORES 5320: Scientific Writing and Communication and the ORES 5950 capstone project.

3. How did you analyze the assessment data? What was the process? Who was involved?
   NOTE: If you used rubrics as part of your analysis, please include them in an appendix.

   We utilized the attach rubric to assess the maximum of 10% of the students, 5 students, or all the students in each course. All coursework being assessed was assessed by 2 faculty members and a 3rd if there was disagreement.

4. What did you learn from the data? Summarize the major findings of your analysis for each assessed outcome.
   NOTE: If necessary, include any tables, charts, or graphs in an appendix.

   Outcome 1: The students demonstrated just above an average mastery (average score of 2.3 out of 3). Students need to work on defining their research question. They cite the appropriate sources and provide the theoretical background necessary but are unable to clearly state their research question.

   Outcome 4: The students demonstrated just above an average mastery (average score of 2.33 out of 3). They tended to overstate the results and not had simple interpretations. The students were very good at presenting the results clearly, although some had difficulty with tying it all together with the theory and original research question.

5. How did your analysis inform meaningful change? How did you *use the analyzed data to make or implement recommendations for change* in pedagogy, curriculum design, or your assessment plan?

   We are meeting in August, before the start of the semester to discuss how the results of this current assessment need to be addressed. Recommendations for change in pedagogy and curriculum design are expected to emerge from this meeting.

The analysis has indicated that no changes need to be made to the assessment plan at this time.

6. Did you follow up ("close the loop") on past assessment work? If so, what did you learn? *(For example, has that curriculum change you made two years ago manifested in improved student learning today, as evidenced in your recent assessment data and analysis?)*

We conducted out last program assessment in 2014 for 6 outcomes for the MS in Health Outcomes Research and Evaluation Sciences. Based from this assessment we reduced the number of outcomes to 4 outcomes. In addition, we made the following changes:

- ORES 5010 is no longer be a prerequisite to the MS and Certificate programs; it is now a required course for the MS and Certificate programs and for a student to transfer in a previous graduate level inferential statistics course they must have taken it within the past 5 years
- ORES 5210 Foundations of Medical Diagnosis and Treatment and ORES 5260 Pharmacoepidemiology are no longer *required* courses for the MS program, they are now electives
- ORES 5010 and ORES 5150 have been changed to 4 credit hours (a 1 hour lab has been added). This change was to ensure they have the skill to conduct statistical analysis in multiple statistical computer programs.
- We removed ORES 5310 Foundations of Outcomes Research II

Only the last change was addressed with the assessments of the outcomes studied here. With this assessment, we learned that ORES 5310 was not needed as the students learned the skills and material taught in the course in other courses that they still take. They still meet the outcomes measures here with a higher than average mastery.

IMPORTANT: Please submit any revised/updated assessment plans to the University Assessment Coordinator along with this report.

MS in Health Outcomes Research and Evaluation Sciences Program Assessment Rubric

#	MS in Health Outcomes Research and Evaluation Sciences Program Learning Outcomes	High Mastery (3)	Average Mastery (2)	Low Mastery (1)
1	Effectively review, summarize, and synthesize literature.	• Uses sufficient and appropriate primary resources to describe/explain theoretical assumptions that contextualize the research question • Uses sufficient and appropriate primary resources to develop background or context for research question • Culminates with a clearly stated purpose/ research question • Theoretical background and contextual information flow seamlessly into a well stated research question that has potential to add to the professional knowledge base and is of publishable quality.	• Cites two or more primary sources to set up theoretical assumptions and develop background for research question • Research question is stated with clear and sufficient scope and focus	• No introduction or contextual information for research question • Insufficient primary resources • There is no clearly stated research question • Question does not have appropriate scope or focus
2	Apply appropriate statistical methods.	• Utilize appropriate statistical methods to analyze data in	• Most statistical methods were correctly applied but	• Some statistical methods were applied but with

		the chosen content area • Clearly describes the types of variables used • Clearly describes the outcomes of the data analysis • Display the data analysis visually using a graph, table, etc. • Factors that may have contributed to the data obtained • Implications of the data analyzed	more could have been done with the data.	significant errors or omissions.
3	Critically evaluate methodological designs.	• Original, clear, creative, and innovative • Provides thorough and comprehensive description • Flows from question and theory • Uses state-of-the-art tools, techniques, or approaches • Applies or develops new methods, approaches, techniques tools, devices, or instruments • Uses multiple methods • Analysis is sophisticated, robust, and precise • Uses advanced, powerful, cutting-edge techniques	• Appropriate for the problem • Uses existing methods, techniques, or approaches in correct and creative ways • Discusses why method was chosen • Analysis is objective, thorough, appropriate, and correct • Uses standard methods	• Lacks a method • Uses wrong (statistical) method for the problem • Uses (statistical) method incorrectly • Methods do not relate to question or theory • Is fatally flawed or has major confound • Does not describe or describes poorly (insufficient detail) • Is minimally documented Shows basic competence • Analysis is wrong, inappropriate, or incompetent

4	Effectively communicate study results.	• Results are aligned with question and theory • Sees complex patterns in the data • Iteratively explores questions raised by analyses • Results are usable, meaningful, and unambiguous • Presents data clearly and cleverly • Makes proper inferences • Provides plausible interpretations • Refutes or disproves prior theories or finding	• Links results to question and theory • Substantiates the results • Provides plausible arguments and explanations	• Results are correct but not robust • Includes extraneous information and material • Has difficulty making sense of data • Interpretation is too simplistic • Data are wrong, insufficient, fudged, fabricated, or falsified • Data or evidence do not support the theory or argument • Interpretation is too simplistic, and not objective, cogent, or inferences • Overstates the results