SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program: Health Outcomes Research (ORES)	Department: Health and Clinical Outcomes Research
Degree or Certificate Level: PhD	College/School: School of Medicine
Date (Month/Year): December 2022	Primary Assessment Contact: Dr. Paula Buchanan and Dr. Divya Subramaniam

In what year was the data upon which this report is based collected? 2021-2022

In what year was the program's assessment plan most recently reviewed/updated? September 2021

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle?

Outcome 1: Effectively review, summarize, and synthesize literature related to clinical aspects of health outcomes.

Outcome 2: Critically evaluate clinical aspects and healthcare-specific methodological designs.

Outcome 3: Apply appropriate data management strategies related to clinical aspects of health outcomes.

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

Outcome 1: Effectively review, summarize, and synthesize literature related to clinical aspects of health outcomes.

1. We utilized the final paper from ORES 5300: Foundations of Outcomes Research I.
2. We utilized PhD Dissertation-Chapters 1 and 2 (Introduction and Background Literature).

Outcome 2: Critically evaluate clinical aspects and healthcare-specific methodological designs.

1. We utilized the final paper from ORES 5300: Foundations of Outcomes Research I.
2. We utilized the final paper project from ORES 5210: Foundations of Medical Diagnosis and Treatment.
3. We utilized PhD Dissertation- Chapter 3 (Methodology).

Outcome 3: Apply appropriate data management strategies related to clinical aspects of health outcomes.

1. We utilized the final exam of HDS 5320 Inferential Modeling.
2. We utilized the final project ORES 5160: Data Management.
3. We utilized PhD Written exam.

Note: Our ORES courses are completely online. Whereas our HDS courses are offered both online and in-person.

3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and include them in/with this report.

The selected artifacts from a minimum of 5 students up to a maximum of 10% of the students, within the program, in each course will be assessed by 2 faculty members of the department. If there is a disagreement a 3rd faculty member will be brought in to assess the artifact. We will use the attached rubric to assess the artifacts.

4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

Unfortunately, given the small sample size of 4 students in the program, who were not enrolled in the same courses, we did not have enough material for assessment.

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

We could not draw meaningful conclusions and interpretations as we did not have results that were sufficient to perform analysis that could result in accurate assessment findings.

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

We will share these findings during our January faculty meeting. We had a meeting in early December 2022 to discuss existing limitations related to the small sample size for a meaningful assessment and we also discussed course sequence and content.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies	• Course content • Teaching techniques • Improvements in technology • Prerequisites	• Course sequence • New courses • Deletion of courses • Changes in frequency or scheduling of course offerings
Changes to the Assessment Plan	• Student learning outcomes • Artifacts of student learning • Evaluation process	• Evaluation tools (e.g., rubrics) • Data collection methods • Frequency of data collection

Please describe the actions you are taking as a result of these findings.

N/A

If no changes are being made, please explain why.

Given the sample size for meaningful programmatic assessment, we will not be making any changes until the next assessment cycle with hopes that we will have a larger sample size to work with and then make changes to our curricular and pedagogy.

7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

N/A.

B. How has this change/have these changes been assessed?

N/A

C. What were the findings of the assessment?

N/A

D. How do you plan to (continue to) use this information moving forward?

N/A

IMPORTANT: Please submit any assessment tools and/or revised/updated assessment plans along with this report.

Program Assessment Rubric: PhD in Health Outcomes Research

#	Program Learning Outcomes	High Mastery (3)	Average Mastery (2)	Low Mastery (1)
1	Effectively review, summarize, and synthesize literature related to clinical aspects of health outcomes.	• 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	Critically evaluate clinical aspects and healthcare-specific 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 issues • Does not describe or describes poorly (insufficient detail) • Is minimally documented • Shows basic competence • Analysis is wrong, inappropriate, or incompetent

3	Apply appropriate data management strategies related to clinical aspects of health outcomes.	• Utilize appropriate statistical methods to analyze data in 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	• Most statistical methods were correctly applied but more could have been done with the data.	• Some statistical methods were applied but with significant errors or omissions.

4	Effectively communicate study results related to clinical aspects of health outcomes.	• 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
5	Demonstrate a thorough and ethical approach to conducting academic research.	• Utilize appropriate ethical approach to conducting research • Clearly follows instructions set by Saint Louis University Institutional Review Board • Clearly describes study procedures for IRB proposal submission	• Most ethical policies and procedures demonstrated through research studies	• Does not demonstrate a thorough ethical approach to research studies