

Program-Level Assessment: Annual Report

Program: Doctorate in Nursing	Department: Nursing
Degree or Certificate Level: PhD	College/School: Trudy Busch Valentine School of Nursing
Date (Month/Year): 5/2023	Primary Assessment Contact: Helen Lach
In what year was the data upon which this report is based collected? 2020-2023	
In what year was the program's assessment plan most recently reviewed/updated? 2022	

1. Student Learning Outcomes

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

#3 Generate and disseminate nursing knowledge through research that is innovative, rigorously conducted, ethically sound, and culturally sensitive.

2. Assessment Methods: Student Artifacts

Which student artifacts were used to determine if students achieved this outcome? 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.

Direct

- Final research proposal assignment: In NURS 6809, 80% of students will write a thorough research methods section to include design, setting, participants, recruitment/sampling plan, measures/instruments, procedures, sample size estimation, potential problems, limitations, data analysis, and innovation to achieve at least 80% on NURS 6809 rubric. (attached).
- Final Integrity Issues paper. In NURS 6812, 80% of students will achieve at least 80% (based on a grading rubric) by identifying 4 relevant issues in scientific integrity, relating the problem to an ethical principle, and describing an approach to managing each issue that they may encounter (rubric attached).
- Final statistics project: In NURS 6806, 80% of students will complete a databased project to achieve 44 out of 55 possible points on NURS 6806 rubric (attached).
- At their dissertation defense, 80% of students will demonstrate above average [score ≥ 3 (1=not at all and 5=very)] on items #1 through #4 of the of *Faculty Review of Dissertation* form: that the dissertation work was rigorously conducted, ethically sound, culturally sensitive, and innovative.
- New* – we looked at % of students passing the qualifying exam where they write a qualitative and a quantitative proposal that is reviewed and includes oral discussion of the proposals (pass/fail). No rubric.

Indirect

End-of-program survey: 90% of graduates score agree or strongly agree (4 or 5) on the following items:

- As a result of my PhD education, I have beginning skills to prepare research grants/proposals.
- As a result of my PhD nursing education, I have beginning skills to conduct culturally competent research.
- As a result of the PhD Program, I have beginning skills in ethics and judgement in the conduct of research and writing for publication.

3. Assessment Methods: Evaluation Process

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

The assignment rubrics were used for the 3 course assignments. The Faculty Review of Dissertations is completed by faculty attending dissertation defenses. The Survey was administered to graduates. The forms are attached to this report.

- The rubrics for the specific assignments were used to evaluate course assignments by the faculty members and the grades collected for this report (years since the last assessment of this learning outcomes).

The dissertation data was collected from faculty who attended the dissertation defenses, and who completed an assessment after attending the defense.

The end-of-program survey was conducted in the spring of 2020 for graduates over the prior 3 years (frequency determined by the committee to increase response rates with larger numbers of students surveyed). Data from specific items were compiled for this learning outcome. See attached rubrics and forms. We are conducting a new survey of graduates this summer as part of a curriculum review for the program.

4. Data/Results

What were the results of the assessment of the learning outcomes? 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)?

Direct

a. Final research proposal -6809 - 80% of students will achieve at least 80% on the final research proposal assignment.

Year	# of students	Final paper score range
2021	6	91.6 - 100
2022	8	70.8 - 100
2023	5	91.7 - 100

The outcome was met, in that nearly all students achieve at least 80% on the final proposal (95%).

b. Final statistics project- 6807 - 80% of students will complete a databased project to achieve 44 out of 55 possible points (80%) on NURS 6806 rubric (attached).

Year	# of students	Final paper score range
2021	6	47-55
2022	9	55- 55
2023	8	49-55

The outcome was met, in that all students achieved our goal of 80% grade for the paper (100%). The 2022 and 2023 students have taken the new statistics 3-course structure. They have successfully completed a statistical study analysis and presentation in class demonstrating a positive response to these curriculum changes from a few years ago.

c. Final Scientific Integrity Paper – 6812 (summer course) - 80% of students will achieve at least 80% (based on a grading rubric) by identifying 4 relevant issues in scientific integrity, relating the problem to an ethical principle, and describing an approach to managing each issue that they may encounter (rubric attached).

Year	# of students	Final paper scores= range
2020	8	92-98%
2021	6	92-99%
2022	8	90- 98%

The percentage of students attaining 80% on the final paper is 100%, addressing potential ethical issues they might encounter in their research and strategies to manage them.

d. Qualifying Examination – since our qualifying exam consists of writing a qualitative and quantitative research proposal, and oral examination regarding their writing (pass-fail), we explored the percentage of students

passing the new exam in the past 2 years. All students passed the examination, one student had to complete the exam a second time to pass and was successful the second time.

Number of students 2021-2022	Number Passed (first time)	%
12	11	92%

Dissertation Defense Rating

We had 18 students graduate in the past 3 years; we obtained 78 review forms from faculty who rated the student at their dissertation defense. The following items pertain to this learning outcome. “The student demonstrated beginning skills in....” items #1 through #4 of the of *Faculty Review of Dissertation* form: that the dissertation work was rigorously conducted, ethically sound, culturally sensitive, and innovative.

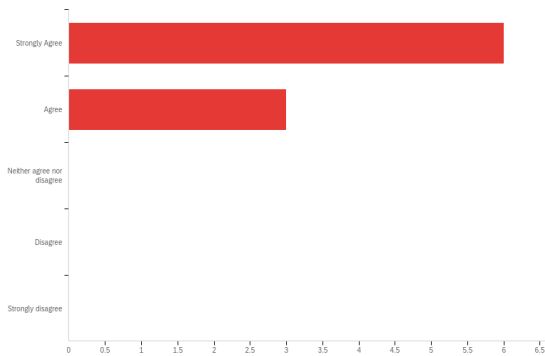
- Rigorously conducted 4.3-5
- Ethically sound 4.6/5
- Culturally sensitive 4.8/5
- Innovative 3.8/5

The goal was met with the majority of ratings above average. We saw somewhat of a decline in innovation scores related to the dissertation. This may be due to COVID where many students did a secondary analysis study because collecting primary data was not possible or so difficult. These studies were rated as less innovative than other studies that included primary data collection.

Indirect Student Survey

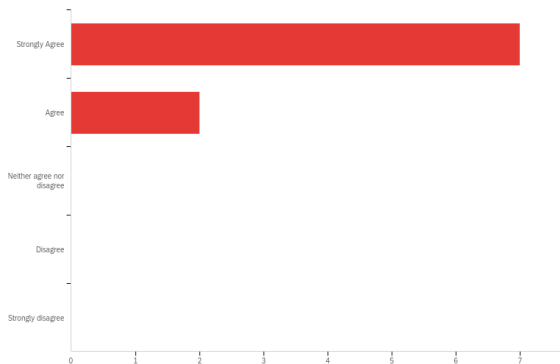
From the end of the program survey: 90% of graduates score agree or strongly agree (4 or 5) on the following items:

- As a result of my PhD education, I have beginning skills to prepare research grants/proposals.



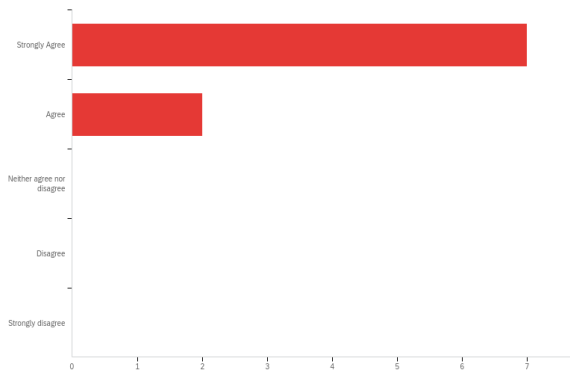
100% of survey respondents agreed or strongly agreed that they have beginning skills to prepare research proposals.

- As a result of my PhD nursing education, I have beginning skills to conduct culturally competent research.



100% of survey respondents agreed or strongly agreed that they have beginning skills to conduct culturally competent research.

- As a result of the PhD Program, I have beginning skills in ethics and judgement in the conduct of research and writing for publication.



100% of students agreed or strongly agreed that they had beginning skills related to ethical conduct in research.

5. Findings: Interpretations & Conclusions

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

Overall, we identified that students are meeting the learning outcome we assessed for this year's report related to generating and disseminating appropriate research. Students identified research questions to answer research questions, and addressed ethical and cultural issues. Especially their dissertation ratings, which is the culmination of their program, they were demonstrating this outcome.

Students did well on their statistics project which shows a positive culmination of the new statistics curriculum, which was followed by this group of students in course work. Those who completed their dissertations, and graduates, did not have this set of courses. We will want to track later years of dissertation data for any changes.

The dissertations were not scored as innovative as much as in past years, as discussed above – more did secondary analysis as studies. There is an acceptable format for a dissertation, but some faculty rate these lower in innovation. Their scores still met our goal for innovation in that students were doing studies to answer new questions to address an area of research of their interest.

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?

The report will be discussed in the fall as we work on our curriculum review related to scores on all dissertation and qualifying exams.

- B. How specifically have you decided to use 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
- Student artifacts collected
- 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 the findings.

The assessments in this report include evaluation of students early in their program, at the end, and post-graduation. Students are successfully attaining our learning outcomes per the goals we have set; however, we do want to make improvements. To this end, we started a curriculum review this year that we will complete over the next year. We will look at the assessment reports over the past 4 years as part of this review. The American Association of Colleges of Nursing released a report in 2022 with recommendations for nursing research doctoral programs (April, 2022). The faculty reviewed this content, and we have recommended one change already. There is a call to reduce the time to a degree and move students through more quickly. We have already eliminated one semester already by revising our qualifying exams. We are eliminating a course that will increase the efficiency of the program. We will be tracking if we continue to meet our learning outcomes as we follow students after these changes are put into place.

If no changes are being made, please explain why.

N/A

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?

We implemented a new preliminary examination 2 years ago. We moved this qualifying exam to the end of the 2nd year rather than at the end of coursework in order to provide remediation for students who were not attaining our learning outcomes. To date 8 students have completed the new process; 1 failed but was able to pass a 2nd test. This opportunity for remediation should improve students' later performance. These students have not completed their dissertations yet, so we will continue to include the qualifying exam pass rate as part of our assessment of this learning outcome and follow the outcomes at dissertation.

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

Will be assessing if there are improved or equivalent outcomes overall for students over time, and decreased time to degree with changes in the exam structure.

C. What were the findings of the assessment?

We can that scores reflect that students are successful in completing their dissertations using appropriate methods.

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

We will continue to monitor outcomes as students will have the newer statistics core in their course work, as well as the new preliminary exam that should improve student outcomes regarding their dissertation, and decrease time to graduation. We can measure time to dissertation as well as time to degree, in addition to learning outcomes, beginning in 2025. We will use this data to help inform our curriculum review.

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

Assessment Tools

Final Research Proposal Rubric

Introduction

This section should explain the importance of the problem or describe the critical barrier to progress in the field. Explain

how the proposed research project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.

Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved. **Recommended Length: Approximately 2 pages.**

Content: This section should cover:

- the state of existing knowledge, including literature citations and highlights of relevant data;
- rationale of the proposed research;
- explain gaps that the project is intended to fill; and
- potential contribution of this research to the scientific field(s) and public health.

Points total points:

1. **Background:** Make a compelling case for your proposed research project. Why is the topic important? Why are the specific research questions important? Establish significance through a careful review of published data in the field, including your own. Avoid outdated research. Use citations not only as support for specific statements but also to establish familiarity with all of the relevant publications and points of view. Use of subtitles is effective ways to lead readers along. Review what is known and what needs to be known (be consistent with objectives and synthesize the literature)—**2 points**
2. **Theoretical Framework:** Highlight why this research is important beyond this specific project i.e., theoretically. Provide a theoretical framework and **specifically** describe how it will be used in this project.—**2 points**
3. **Significance:** Highlight why research findings are important beyond the confines of a specific project i.e., how can the results be applied to further research in this field or related areas. Clearly state public health implications. Explain the importance of this project and how it will contribute to the field (must be strong and convincing). Suggest that in a separate section, start your sentences like this: This study is significant because...—**2 points**
4. **Innovation** Explain how the application challenges and seeks to shift current research or clinical practice paradigms. Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions developed or used, and any advantage over existing methodologies, instrumentation, or interventions. Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions. Content: The innovation section could (and should if at all possible) include the following:
 - Explain why concepts and methods are novel to the research field.
 - Focus on innovation in study design and outcomes.
 - Summarize novel findings to be presented as preliminary data in the Approach section.

Describe how the application differs from current research or clinical practice paradigms. Provide a careful review of the current literature to support the innovative methodologies, approaches, or concepts of your research. Demonstrate familiarity with novel methodologies by citing your publications or your collaborator's publications. Be very direct by starting your sentences like this "This study is innovative because..."—**2 points**

Research Plan

Approach The purpose of the approach section is to describe how the research will be carried out. This section is crucial to how favorably an application is reviewed. Recommended Length: 5-10 pages. Content: The research design and methods section should include the following:

1. **PI's preliminary work**/studies, data, and experience relevant to the application and the experimental design; Alternatively, integrate preliminary work/data with the methods description for each Specific Aim. Preliminary work can be an essential part of a research grant application and helps establish the likelihood of success of the proposed project. Include the research team here and the role and the expertise/prior work each member brings to the project.—**2 points**
2. **Overview of the experimental design** including rationale, briefly restate aims and design to address them—**2 points**; Describe the methods and analyses to be used to accomplish the specific aims of the project:
3. **Setting** [description including number of patients who might qualify for this project & rationale for setting]—**2 points**
4. **Participants** [description, with inclusion/exclusion criteria & rationale; mention race, gender, and children]—**2 points**
5. **Recruitment/sampling plan** [description & rationale]—**2 points**
6. **Measures/instruments** [connect each to the aims and/or theory directly; rationale for each; description of measure including sample items and subscales, scoring method/calibration (what do high scores mean), validity & reliability or specificity & sensitivity (actual values); for samples see good quality published research]—**2 points**

7. **Procedures** [very detailed with rationale as needed; include assignment technique and how data will be collected; include hazardous situations and precautions planned]—**2 points**
8. **Sample size calculations** [description & rationale]—**2 points**
9. **Data Analysis:** Discuss in detail the way in which the results will be collected, analyzed, and interpreted; Data analysis should be organized by specific aim [specify independent & dependent variables and covariates for each test]—**2 points**
10. **Timetable:** Projected the sequence or timetable (work plan) for completing the study [description & rationale]—**2 points**;
11. **Alternate Strategies:** Develop **alternative strategies for potential problems**. Potential problems, think about things that might go wrong that you can do something about, have a backup plan, such as not being able to recruit enough participants. Discuss potential difficulties and how these will be overcome or mitigated; Potential problems, think about things that might go wrong that you can do something about, have a backup plan, such as not being able to recruit enough participants. Point out any procedures or situations that may be hazardous and precautions to be exercised. These can be incorporated throughout, not in a separate section. [discuss alternative strategies and benchmarks for success]—**2 points**
12. **Limitations, things you cannot do something about** (describe each and plan for minimizing each). Include how this project has value in spite of these limitations.—**2 points** **Suggestions for total points:**

Final Statistics Project Rubric

Statistics Final Project Rubric (Note, final grade on project is rescaled based upon a 55 pt total)

Scoring	0	1	2	3	4	5
<p>Professionalism</p> <ul style="list-style-type: none"> - Follows APA style. - Maintains research ethics consistent with the profession, - Design (e.g., color, borders, pictures) does not detract away from the content. - Evidence of compliance with IRB. - Completion of CITI Biomedical research training modules. 	<p>Little evidence of compliance with professional standards¹.</p>	<p>Errors in this criteria are such that the level of professionalism detracts away from the presentation.</p>	<p>Three or more issues raise concern.</p>	<p>Generally meets expectations but 1 or 2 issues raise concern.</p>	<p>Overall meets expectations with no more than one weakness.</p>	<p>Meets Expectations</p>
<p>Organization</p> <ul style="list-style-type: none"> - Sections of the poster are congruent in content and form. - Content is not crowded and can be viewed at a distance of 3 or more feet consistent with event expectations. 	<p>Errors in this criteria are such that the poster is difficult to follow and understand.</p>	<p>Errors in this criteria are such that entire an section (or sections) is difficult to follow and understand.</p>	<p>Three or more problems reduce the quality of the poster.</p>	<p>Generally meets expectations but 1 or 2 weaknesses raise concern.</p>	<p>Overall meets expectations with no more than one concern.</p>	<p>Meets Expectations</p>

<p>Compliance</p> <ul style="list-style-type: none"> - An event to submit the poster to is identified and expectations delineated by the event are complied with. - Copy of the event expectations are turned in. <p>- Constructive feedback is given on each classmate's final poster.</p>	Criteria are not addressed	Few elements of this criteria are met.	Three or more weaknesses are present and/or 3 or more elements are missing	Generally meets expectations but 1 or 2 weaknesses are present and/or 1 or 2 elements are missing	Overall meets expectations with no more than one concern.	Meets Expectations
<p>Writing</p> <ul style="list-style-type: none"> - Writing is clear and connected with one or two, if any, errors in grammar, spelling, APA style, and/or punctuation. 	Errors in this criteria are such that the poster is difficult to follow and understand	Errors in this criteria are such that entire an section (or sections) is difficult to follow and understand.	Three or more problems reduce the quality of the writing.	Generally meets expectations but 1 or 2 problems reduce the quality of the writing.	Overall meets expectations with no more than one concern.	Meets Expectations
<p>Figures/Tables</p> <ul style="list-style-type: none"> - Clear - Accurate - Succinct - Summary enhances the poster 	Criteria was not addressed.	The figure is such it detracts away from the poster.	The figure does not contribute to the poster.	Generally meets expectations but 1 or 2 weaknesses raise concern.	Overall meets expectations with no more than one concern.	Meets Expectations
Content	0	1 to 3	4 to 5	6 to 7	8 to 9	10
<p>Poster Abstract</p> <ul style="list-style-type: none"> - Content of the poster is contained in the abstract. - Writing is clear and connected with one or two, if any, errors in grammar, 	Criteria was not addressed.	Few elements of this criteria are met and/or errors make the handout difficult to follow and understand.	Three or more problems reduce the quality of the writing and/or utility of the	Generally meets expectations but 1 or 2 weaknesses raise concern.	Overall meets expectations with no more than one concern.	Meets Expectations
<ul style="list-style-type: none"> - spelling, APA style, and/or punctuation. 			summary.			

<p>Analyses</p> <ul style="list-style-type: none"> - Techniques employed are those covered in this course. - Appropriate inferential statistics are provided (e.g., effect size). - Appropriate descriptive statistics are provided - Analyses are complete (e.g., this is not a proposal). - Displays thoughtful application of course material. 	<p>Analyses are missing</p>	<p>Errors in this criteria, are such that the validity of the study is unreasonable to assume.</p>	<p>Errors in this criteria, are such that the validity of the study is seriously in doubt.</p>	<p>Generally meets expectations but 1 or 2 weaknesses are present and/or 1 or 2 elements are missing</p>	<p>Overall meets expectations with no more than one concern</p>	<p>Meets Expectations</p>
<p>Research Questions/Hypotheses</p> <ul style="list-style-type: none"> - Inquiries follow logically from the introduction. -Answers to the research inquiries are congruent with the analyses implemented and the inquiries themselves. - Displays thoughtful application of course material. 	<p>Research questions and/or hypotheses are missing.</p>	<p>Errors in this criteria are such that the validity of the study is unreasonable to assume.</p>	<p>Errors in this criteria are such that the validity of the study is seriously in doubt.</p>	<p>Generally meets expectations but 2 or 3 weaknesses are present and/or 2 or 3 elements are missing.</p>	<p>Overall meets expectations with no more than one concern.</p>	<p>Meets Expectations</p>
<p>Innovation</p> <ul style="list-style-type: none"> - Justification for the study is clearly delineated in the work and follows logically from the reported literature. - The study clearly delineates the new and necessary contributions of the findings to the 	<p>Work lacks originality and/or fails to make a contribution to the extant body of knowledge.</p>	<p>Limitations in this criteria are such that the originality of the study is in doubt and/or is unlikely to make a contribution to</p>	<p>Limitations in this criteria are such that the contributions and/or originality of the study are seriously in doubt.</p>	<p>Generally meets expectations but 2 or 3 weaknesses are present and/or 2 or 3 elements are missing.</p>	<p>Overall meets expectations with no more than one concern.</p>	<p>Meets Expectations</p>

existing body of knowledge.		the extant body of knowledge.				
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1. Note, if professional standards are violated, this may warrant rejection of the poster for a grade (e.g., plagiarism).

Final Scientific Integrity Paper Rubric

The purpose of this paper and presentation is to synthesize the material discussed in class and in the readings and show application to your own work. Identify 4 specific issues raised in this class that you anticipate having to address during your research or dissertation work and/or potential problems you will want to prevent (can include research design, publication, recruitment, etc.).

Each topic will be worth 25% and should:

- describe a relevant issue in scientific integrity
- relate the problem to an ethical principle
- describe an approach to managing the problem

Rubric:

Name:	Pts.	Grade	Comments
Issue 1	16		
Issue 2	16		
Issue 3	16		
Issue 4	16		
Clarity of expression	20		
APA /references	16		
Total	100		