IMPROVING COMMUNICATION AND STUDENT ENGAGEMENT IN A DNP PROGRAM THROUGH THE USE OF TECHNOLOGY: INCREASING DNP STUDENT KNOWLEDGE AND AWARENESS ABOUT COURSE EVALUATIONS

UNIVERSITY OF HAWAIʻI AT MĀNOA SCHOOL OF NURSING AND DENTAL HYGIENE

A DOCTOR OF NURSING PRACTICE PROJECT SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAIʻI AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF NURSING PRACTICE

MAY 2025

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Keywords: Communication, Student Evaluations of Learning, Course Evaluations, Student Feedback, Response Rate

Abstract

Problem Statement: Doctor of Nursing Practice (DNP) student course evaluation completion at the University of Hawai'i School of Nursing and Dental Hygiene is consistently below the targeted rate. This poses a challenge to implement program changes based on the students' experience. Improving students' understanding of course evaluations may boost participation. **Purpose:** The purpose of this evidence-based practice project was to determine if implementing an educational intervention delivered using technology could increase students' intention to complete course evaluations. **Methods:** The intervention consisted of a digital infographic curated to address common questions about course evaluations. The infographic was distributed to DNP students via email with a five-minute contextual video. A pre- and post-survey were given to students to assess knowledge and awareness about course evaluations. **Results:** A total of 8 DNP students participated in the intervention. The average student Likert scale rating increased from pre- to post-survey for the following four questions: DNP Curriculum and Program Development Committee utilizes course evaluations for program updates, the DNP program reviews course evaluations, evaluations are a valuable use of time, and other students complete course evaluations. A question assessing if students intended to complete the course evaluation saw no change in average rating, and a question regarding course evaluation anonymity saw a decrease in average rating. **Discussion:** The increase in average Likert scores for knowledge-related survey questions suggests a positive shift in students' understanding of course evaluations. However, the relatively small change in intention-related survey scores indicates that awareness alone may not be sufficient to drive participation. Incentives, alternative feedback methods, and faculty reinforcement of the evaluation's significance may be necessary to improve completion rates.

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List of Abbreviations

NP	Nurse Practitioner
DNP	Doctor of Nursing Practice
SONDH	School of Nursing and Dental Hygiene
UHM	University of Hawaii at Manoa
CPD	Curriculum and Program Development
JHNEBP	Johns Hopkins Nursing Evidence-Based Practice
SET	Student Evaluations of Teaching
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses
KAP	Knowledge, Attitude, Practice

IMPROVING COMMUNICATION AND STUDENT ENGAGEMENT IN A DNP PROGRAM THROUGH THE USE OF TECHNOLOGY: INCREASING DNP STUDENT KNOWLEDGE AND AWARENESS ABOUT COURSE EVALUATIONS

In the United States, the nurse practitioner (NP) profession has become a cornerstone of modern healthcare, with 385,000 licensed NPs contributing significantly to patient care (AANP, 2024). An impressive 96.2% of these NPs hold prescriptive authority (AANP, 2024), enabling them to perform an estimated 1 billion patient visits annually (AANP, 2023). As the need for primary care providers and medical specialty support grows alongside rising healthcare costs, the demand for highly educated and clinically competent nurse practitioners continues to surge (Olson, 2022). To meet this demand, Doctor of Nursing Practice (DNP) programs that prepare graduate nursing students for advanced practice nursing roles must be of the highest quality, ensuring that graduates are not only prepared to deliver exceptional care but also to lead and innovate within the healthcare system.

In Hawaii, the number of nurse practitioners in Hawaii has grown rapidly, mirroring national trends. In 2013, there were fewer than 850 licensed nurse practitioners in the state (HSCN, 2024). By 2023, this number had surged by almost 77%, exceeding 1,400 (HSCN, 2024). This upward trend highlights the increasing demand for DNP education in the state of Hawaii and underscores the need for DNP programs in Hawaii to continue producing competent nurse practitioners capable of meeting the healthcare needs of the community.

Importance of Integrating Communication Technologies into DNP Education

Communication is a fundamental aspect of any academic program, and its importance is amplified at the doctoral level. Effective communication channels facilitate the dissemination of critical information, foster collaboration, and contribute to a supportive learning environment.

Nurse practitioner students in doctoral programs desire high connectivity (Olson, 2022) and value improved course communication (Cipher et al., 2019). Moreso, students who have a greater number of interactions with both faculty and other students are more successful in core nursing courses (Serembus & Riccio, 2019). Implementing innovative communication technologies into DNP programs can enhance student experiences, ultimately contributing to improved student satisfaction, clinical competency, as well as program efficiency and responsiveness to student needs and expectations.

Integration of educational technology in higher education significantly boosts student engagement, especially in nursing schools (Bond, 2020). Additionally, the use of technology in higher education has been shown to improve student access to resources, leading to enhanced learning outcomes as well as better preparation for future clinical practice (Gause et al., 2022). Loureiro et al. (2021) reported that nursing students and faculty identified many benefits to utilizing educational digital technologies, such as access to educational content without time or space constraints, integration of multiple learning tools, and low implementation cost. Such evidence suggests that leveraging the flexibility of technology may enhance graduate nursing students' skills and their capability to provide evidence-based, high-quality patient care, which ultimately contributes to improved healthcare outcomes.

Incorporation of communication technology within DNP programs align with real-life clinical practice, where the use of technology is common and expected. A systematic review found that technology integration in complex healthcare environments is significant to direct patient care, patient safety, teamwork, communication, and the perception of care (Bayramzadeh & Aghaei, 2021). By mirroring this practice method while in graduate school, students will be

more effectively prepared to utilize communication technology frequently and efficiently when they transition to the clinical environment.

The University of Hawaii at Manoa School of Nursing and Dental Hygiene (UHM SONDH) DNP program, in its efforts to meet this growing need, recognizes the importance of identifying and integrating innovative technologies to enhance DNP students' engagement and experiences while enrolled. Students have identified specific challenges that could be facilitated with the integration of communication technology tools, which may improve the rapid and timely dissemination of important program-related information, guidance, and updates. Addressing challenges by using communication technologies has been suggested as a method for improving students' overall educational experience, academic success, and future clinical practice.

DNP Project Collaborative Approach

To address the identified need for improved integration of communication technologies in the UHM SONDH DNP program, a collaborative DNP project, composed of a series of interventions, will be initiated. This collaborative DNP project will encompass five distinct foci and corresponding interventions, all centered around leveraging technology to enhance communication and enhance education methods. Each initiative aims to advance the use of communication technologies within the UHM SONDH DNP program.

This collaborative DNP project has five focus areas. One project seeks to increase student course evaluation response rates by educating students on the importance of their feedback and raising awareness about the DNP program evaluation process. Another project aims to improve time efficiency in student clinical evaluations through the use of technology. Another project involves creating a clinical toolkit to support students in their practical experiences, providing

them with essential resources for effective learning in real-world settings. Another project is dedicated to refining program informational sessions by integrating interactive technology tools, thereby enhancing attendee engagement, and providing valuable insights into prospective students. Finally, another project aims to enhance the current learning management system by developing the principles of a user-centered interface, improving accessibility and efficiency for students. This paper will discuss developing a DNP portal constructed using a user-centered design method.

Background

Communication Regarding Student Feedback on Courses

Course evaluations, also called student evaluations of teaching (SET), have become a standard practice at most universities. These evaluations typically include a combination of Likert-scale ratings and open-ended responses, with the latter often providing more valuable insight into the student experience and can prompt instructors with ways to improve their courses (Young et al., 2018). When response rates to course evaluations are low, they may not accurately reflect overall course effectiveness due to bias caused by misrepresentation of the class population and nonresponse bias (Standish et al., 2018; Young et al., 2018). Validity and reliability concerns due to low response rates would be substantially diminished with high response rates, such as 80% or higher (Alvero et al., 2019). Reasons given by students for not completing course evaluations are diverse, including feeling disengage with courses, technology issues, no perceived benefit from participation, lack of anonymity, and lack of understanding the importance of course evaluations (Anderson, Brown, and Spaeth, 2006; Lipsey & Sheppard, 2020; Chapman & Joines, 2017).

The UHM SONDH DNP program depends on communication from students via course evaluations to assess program effectiveness and to inform program changes. Student feedback is reviewed by the Curriculum and Program Development (CPD) committee, which is comprised of DNP faculty and staff, and SONDH leadership, including the Department Chair, Associate Dean for Academic Affairs, and Graduate Chair. According to the DNP program director, there are no other formal processes aside from course evaluations for students to provide feedback. UHM SONDH considers a 40% course evaluation response rate as a meaningful benchmark for data to be generalizable to make programmatic or course changes. Currently, response rates are consistently below 40%, thus making it difficult for the DNP CPD committee to utilize student feedback to drive quality improvement (C. Nunokawa, personal communication, July 24, 2024). Improving understanding the importance of course evaluations among DNP students may contribute to increased participation in the course evaluation process.

Problem Statement

Completion of course evaluations by UHM SONDH DNP students is consistently below the targeted rate, therefore posing a challenge to implement changes to the program based on the students' experience. Addressing students' understanding of the importance of course evaluations may drive improved participation in course evaluations.

PICO

Among UHM SONDH DNP students (P), does providing a digital educational infographic to increase knowledge about course evaluations (I), compared to current practice of not sending an educational infographic, (C), increase students' intentions to complete course evaluations (O)?

Purpose and Objectives

The purpose of this evidence-based practice project is to determine if implementing a no cost educational intervention delivered using technology can increase students' intention to complete course evaluations response rates. The specific objectives of this project are to:

1. Develop a technology-based infographic using input from DNP students.
2. Distribute the infographic to increase student knowledge regarding the DNP program evaluation process and how the DNP CPD committee utilizes course evaluation results.
3. Evaluate the impact of the infographic on students' knowledge and intentions to complete the course evaluation over the course of an academic semester.

Conceptual Framework

The conceptual framework selected for this project is the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Model. This model was selected for its problem-solving approach to clinical decision making in addition to its tools provided to guide individual and broad use among bedside environments, healthcare organizations, and teaching institutions (Dang et al., 2022). The aim to evaluate, develop, and implement technological innovations within the UHM SONDH DNP program aligns with the core components that guide the JHNEBP model. These components include inquiry, practice, and learning (Dang et al., 2022). The JHNEBP model three step process that integrates these components include (1) practice question, (2) evidence, and (3) translation (Dang et al., 2022).

Practice questions were developed after review of current use of technology within the DNP program which led to identification of areas needing improvement. Following development of practice questions, a thorough literature review was conducted to discover current evidence-

based research on the topic. Translation is the implementation of interventions developed based on areas needing improvement identified and varies based on the individual topics. All topics address use of technology to enhance communication within the UHM SONDH DNP program.

Literature Review

The literature search was conducted using PubMed and EBSCO databases. The search strategy included key terms such as “course evaluation,” “curriculum evaluation,” “program evaluation,” “student evaluation of teacher performance,” and “response rate.” In the search process, the inclusion criteria consisted of peer-reviewed articles written in English, published between 2011 and 2024. This time period was chosen to ensure a comprehensive selection of relevant articles. Exclusion criteria included the following: studies that do not answer the review question, literature published before 2011, and other literature that were not peer-reviewed articles, such as letters, book chapters, and dissertations.

In total, 45 articles were returned from the initial literature search. The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines were used for the screening process. Of the 45 articles assessed for inclusion, 1 article was identified as a duplicate and removed. Of the remaining 44 articles, 16 articles were then excluded during the title and abstract screening, and 15 were excluded during the full-text review for being irrelevant to the PICOT question. Following this process, a total of 13 articles were retained for inclusion into the literature synthesis. Of these, six were level I evidence, six were level II evidence, and one was level III evidence according to the Johns Hopkins Evidence-Based Practice Model Research Evidence Appraisal Tool found in Appendix E (Dang et al., 2022).

Synthesis of Evidence

Electronic versus Paper Evaluations

Five of the selected articles compared electronic course evaluations to paper evaluations in terms of student response rate (Capa-Aydin, 2014; Mau & Opengart, 2012; McAlpin et al., 2014; Morrison, 2011; Perrett, 2013). Of those studies, four concluded that in-person paper course evaluations yielded a higher student response rate (Capa-Aydin, 2014; Mau & Opengart, 2012; McAlpin et al., 2014; Morrison, 2011). Capa-Aydin (2014) notes that electronic evaluations likely produce a low response rate for several factors including technical problems, lack of social pressure, and forgetting to respond. Similarly, Mau and Opengart (2012) found that online evaluations lacked the social pressure of completing the evaluation in a course setting and require students to use their own time to complete the evaluations. McAlpin (2014) cited technological difficulties as a potential barrier for online course evaluation completion. Morrison (2011) noted that students typically can leave the classroom only after they complete the course evaluation, therefore giving the impression that the submission is mandatory, while respondents who submit electronic course evaluations are free to not respond. The study performed by Perret (2013) did not produce sufficient evidence to make conclusions about the relationship between course evaluation administration method and response rates. All five studies were conducted at the graduate or undergraduate level and had sample sizes ranging from 80 to 2152 participants (Capa-Aydin, 2014; Mau & Opengart, 2012; McAlpin et al., 2014; Morrison, 2011; Perrett, 2013).

Incentives

Five studies investigated the effects of incentives on course evaluation response rates (Alvero et al., 2019; Crews & Curtis, 2011; Goodman et al., 2015; Lipsey & Shepperd, 2020;

Sundstrom et al., 2016). All of the articles endorsed extra credit or added points to a student's grade as successful incentives to increase evaluation response rates (Alvero et al., 2019; Crews & Curtis, 2011; Goodman et al., 2015; Lipsey & Shepperd, 2020; Sundstrom et al., 2016). Though Crews & Curtis (2011) noted that grade incentives were effective, they concluded that email reminders to students were even more effective. Similarly, Goodman et al. (2015) recognized that other effective tactics, such as explaining how the evaluations would be used to improve instruction and reminder emails, would increase response rates as well as incentives. Moreso, Lipsey and Shepperd (2020) investigated incentives plus prompts, which included reminders, goals and progress feedback related to course evaluations and resulted in significantly higher response rates. All studies were conducted at institutions of higher education and the sample sizes ranged from 23 to 2676 (Alvero et al., 2019; Crews & Curtis, 2011; Goodman et al., 2015; Lipsey & Shepperd, 2020; Sundstrom et al., 2016).

Synchronous Class Time

Three of the selected articles reviewed the administration process for course evaluations and how it may impact response rates (Standish et al., 2018; Young et al., 2018; Medina et al., 2019). Two of the researchers concluded that offering students synchronous, in-class time to complete course evaluations led to significantly higher response rates (Standish et al., 2018; Young et al., 2018). Standish et al. (2018) reported an 83% increase in response rate with a sample size of 6,248 students and Young et al. (2018) reported a 27.3% increase with a sample size of 602 students. Medina et al. (2019) conducted a systematic review on strategies for course evaluation design and administration and found that offering scheduled class time was an effective method to boost response rates.

Synthesis

Studies comparing electronic and paper course evaluations revealed that electronic evaluations suffered from lower student response rates due to factors such as technical issues, a lack of social pressure, and requiring the student's time for completion (Capa-Aydin, 2014; Mau & Opengart, 2012; McAlpin et al., 2014). In contrast, in-person paper evaluations yielded higher response rates because students were given class time to respond, and they were required to complete the evaluation before leaving class (Morrison, 2011). Additionally, offering incentives, like extra credit or grade points, effectively increases response rates, with email reminders and explanations of the evaluations' impact further enhancing participation (Alvero et al., 2019; Crews & Curtis, 2011; Goodman et al., 2015; Lipsey & Shepperd, 2020; Sundstrom et al., 2016). Furthermore, allowing students to complete evaluations during synchronous class time significantly boosts response rates, as evidenced by notable increases in response rates reported in several studies (Standish et al., 2018; Young et al., 2018; Medina et al., 2019).

Overall, these findings highlight the importance of the administration method, incentives, and timing in optimizing student participation in course evaluations. A limitation of this literature review is none of the articles describe or mention student knowledge about the importance of course evaluations and how this impacts response rates. This DNP project will focus on improving student knowledge of course evaluations by introducing a digital educational intervention. It is hoped that such an intervention will influence intention to complete course evaluations, and ultimately contribute to improved course evaluation completion rates.

Methods

Project Design

This quality improvement project involved a digital educational intervention to raise student awareness about course evaluations intended to boost response rates. The goal of the project was to assess student knowledge about the importance of course evaluations and to increase student intent to complete course evaluations.

Setting and Participants

This project was conducted at the University of Hawai'i within the Doctor of Nursing Practice program. DNP students from all cohorts, class of 2025, 2026 and 2027, were invited to participate. Participation in the project was completely voluntary.

Intervention

The first task of this evidence-based practice project was to assess what information about UH SONDH course evaluations would be required to provide to DNP students to encourage greater participation. A small group interview was conducted with DNP students using interview questions (Appendix A) to gather information. According to Hartmann et. al. (2022), knowledge, attitude, and practice (KAP) surveys have the potential to identify gaps in knowledge, beliefs, or behavior patterns, and to elicit common attitudes or information. A KAP survey aims to elicit what is known (knowledge), believed (attitude), and done (practiced) in the context of the topic of interest (Andrade et. al., 2020). The interview questions were generated using the KAP survey model as the foundation. Student feedback from the interview was then used to inform the content of a digital educational infographic (Appendix D). A five minute and twenty-eight second video was also created to provide context and to explain each element of the infographic. Contents of the infographic included important topics, such as an outline of the DNP

program evaluation process, how the DNP CPD committee utilizes evaluation results, and the course evaluation response rate goal. The infographic is included in Appendix E. Following the development of this educational tool, the infographic and video were distributed directly to participating students via email.

Data Collection

This project employed an 8-question pre-intervention survey (Appendix B), which was distributed electronically via Google Forms to participating students two weeks before the course evaluation system opened. The questionnaire included six Likert-type questions and two open-ended response questions, which aligned with the KAP survey model (Hartmann et. al., 2022). Questions one, two and three addressed knowledge about course evaluations. Questions four and five assessed attitude regarding evaluations, and questions six, seven, and eight evaluated practice intentions regarding course evaluations.

Following completion of the pre-intervention survey, the educational infographic and video were emailed to participating students one week before the course evaluation system closed. After viewing both the infographic and the video, participating students were then asked to complete a 9-question post-intervention survey (Appendix C). Questions one through six of the post-intervention survey were identical to the pre-intervention survey while questions seven through nine addressed the intervention effectiveness and how it may be improved in the future. Reponses were collected anonymously from participants via Google Forms.

Data Analysis

Data collected from the pre- and post-intervention questionnaires were downloaded from Google Forms for data analysis. Responses to Likert-type questions were imported to an Excel spreadsheet and analyzed using descriptive statistical analysis. These survey questions were then

analyzed for changes in the group aggregate mean score from pre- to post- survey. Qualitative data collected via open-ended questions is included in the final DNP project report (Appendix F).

Human Subject Considerations

This DNP project is an implementation of an evidenced-based program level process improvement determined through quality improvement initiatives or program/system evaluation and is deemed non-human studies research. To improve and further develop process improvement and program effectiveness, DNP project activities are related to quality improvement and do not produce generalizable knowledge. Therefore, based on the Common Rule, this project does not require IRB application or review. Approval from the Project Committee will be obtained prior to the initiation of this quality improvement project (University of Hawaii Human Studies Program Memorandum, 2021) (Appendix D).

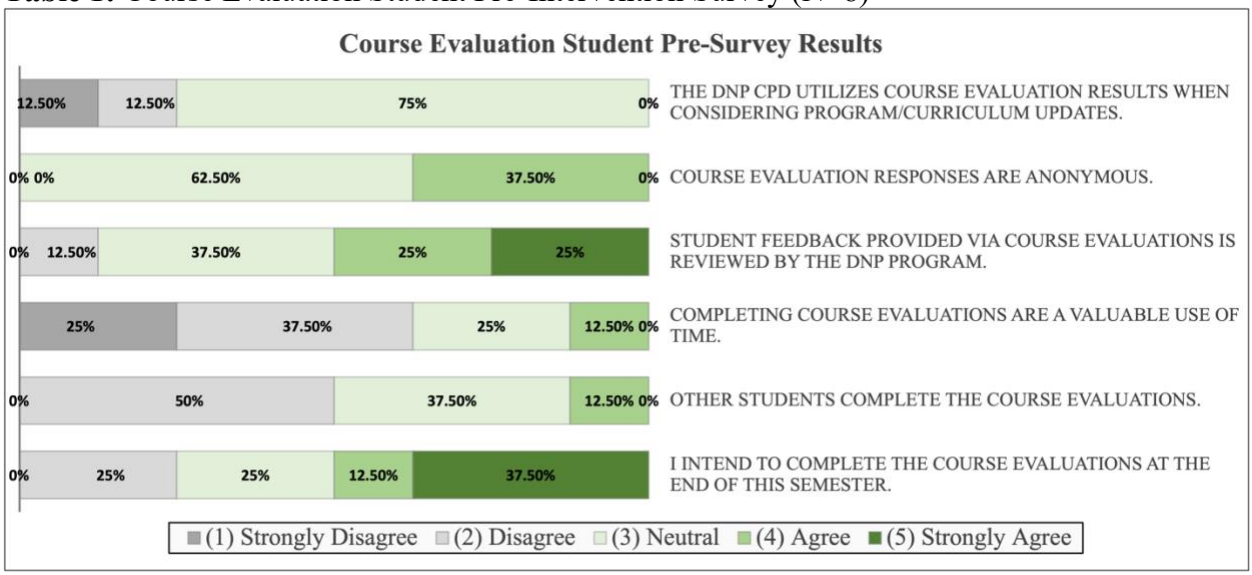
Results

A total of 8 DNP students participated in the digital educational intervention to raise awareness about course evaluations during the Fall 2024 semester. The intervention was offered to all DNP students from the classes of 2025, 2026, and 2027. For the pre-survey, N=6 (75%) of responses were from class of 2025, N=1 (12.5%) from classes of 2026, and N=1 (12.5%) from class of 2027. For the post-survey, N=4 (50%) of responses were from class of 2025, N=2 (25%) from classes of 2026, and N=2 (25%) from class of 2027.

Course Evaluations Student Pre-Intervention Survey

Table 1 displays the results of the six Likert scale questions asked during the pre-intervention survey. Students were asked to score each question using a Likert scale ranging from 1-5, (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree.

Table 1: Course Evaluation Student Pre-Intervention Survey (N=8)

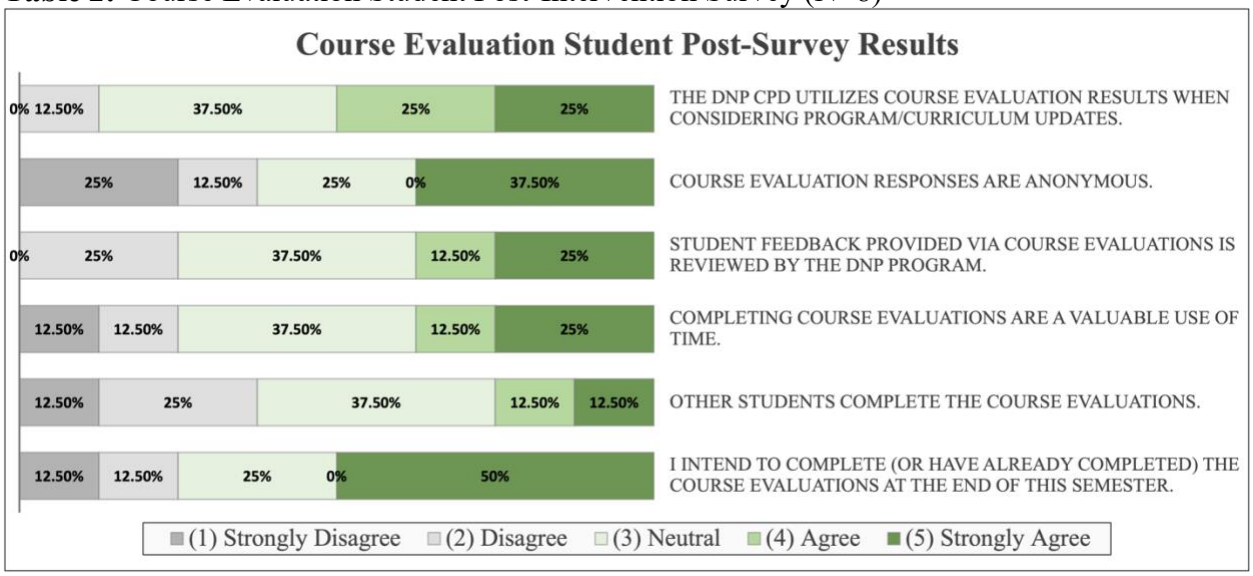


An open-ended question was included to understand why students have, or have not, completed course evaluations in the past. Multiple students indicated that they did not complete course evaluations because they are "time-consuming" or "tedious," while another student shared that they did complete course evaluations to "have change be implemented." Another open-ended question was included to prompt students for their suggestions on how to improve course evaluation completion rates. A few suggestions included "extra credit" and "explaining the importance of completing evaluations." Please refer to Appendix F for the full list of responses.

Course Evaluations Student Post-Intervention Survey

Table 2 displays the results of the six Likert scale questions asked during the post-intervention survey. These six questions and the Likert scale used were identical to that of the pre-intervention survey.

Table 2: Course Evaluation Student Post-Intervention Survey (N=8)



An open-ended question was included to allow for students to provide feedback or suggestions regarding the course evaluations. Notably, a student suggested to "bring up all of the changes made to courses during orientation." Please refer to Appendix F for the full list of responses.

Student Awareness About Course Evaluations

Columns two and three of Table 3 display the pre- and post-survey average numerical Likert score, ranging from 1-5, with (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, and (5) Strongly Agree. Column four indicates the difference in average score. For questions one and four, the average score increased by 1. For questions three and five, the average score increased by 0.25. Question six showed no change and for the question two, the average score decreased by 0.25. Columns five and six display the most selected scores for each question on both the pre- and post-survey. Finally, column seven shows the difference in the most selected scores. Questions 2, 4, and 5 showed an increase in the most selected scores, while questions 1, 3 and 6 showed no change.

Table 3: DNP Student Awareness About Course Evaluations (N=8)

	Pre-survey		Post-survey		Differences	
Questions	**Mean**	**Mode**	**Mean**	**Mode**	**Mean**	**Mode**
1) The DNP CPD utilizes course evaluation results when considering program or curriculum updates.	2.63	3	3.63	3	**1**	**-**
2) Course evaluation responses are anonymous.	3.38	3	3.13	5	**-0.25**	**2**
3) Student feedback provided via course evaluations is reviewed by the DNP program.	3.63	3	3.88	3	**0.25**	**-**
4) Completing course evaluations are a valuable use of time.	2.25	2	3.25	3	**1**	**1**
5) Other students complete the course evaluations.	2.63	2	2.88	3	**0.25**	**1**
6) I intend to complete (or have already completed) the course evaluations at the end of this semester.	3.63	5	3.63	5	**0**	**-**

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Student Feedback on Educational Infographic and Video

Questions 8 and 9 on the post-intervention survey allowed students to provide feedback on the educational intervention in an open-ended format. Question 8 asked students to identify the strengths and weaknesses of the infographic with video intervention. A strength included "concise and clear [infographic] design," while some mentioned that there was a "lack of detail in the content." Question 9 asked students to describe how the infographic with video intervention can be improved. Multiple students suggested including a PDF version of the infographic in addition to the contextual video. Please refer to Appendix F for the full list of responses.

Student Feedback on Course Evaluations

The qualitative data from the pre- and post-intervention surveys revealed key themes regarding student perceptions of course evaluations, barriers to participation, and strategies for improvement. Many students reported only completing evaluations when dissatisfied with a course or instructor, while others cited fear of retaliation, inconvenient timing during midterms and finals, a preference for verbal feedback, and the time-consuming nature of evaluations as major deterrents. To improve completion rates, students suggested offering incentives such as extra credit, revising evaluation questions to be more meaningful and succinct, providing alternative feedback methods, demonstrating how past feedback led to course improvements, and allowing time in class to complete evaluations. Post-intervention feedback indicated that the infographic and video helped clarify the importance of course evaluations; however, some students recommended adding more detailed content, making the materials more accessible, such as through a downloadable PDF, and shortening the video for better engagement.

Discussion

The findings from this quality improvement project underscore the importance of addressing barriers to course evaluation completion. The intervention, which included an educational infographic and a contextual video, was effective in increasing awareness. The increase in average Likert scores for knowledge-related survey questions suggests a positive shift in students' understanding of course evaluations. However, the relatively small change in intention-related survey scores indicates that awareness alone may not be sufficient to drive participation. Incentives, alternative feedback methods, and faculty reinforcement of the evaluation's significance may be necessary to improve completion rates.

Research shows that extra credit is a successful incentive to increase evaluation response rates (Alvero et al., 2019; Crews & Curtis, 2011; Goodman et al., 2015; Lipsey & Shepperd, 2020; Sundstrom et al., 2016). This type of incentive would require buy-in from the DNP program administrators and faculty, as extra credit is typically not offered to students. However, if implemented, incentives could have a significant impact on response rates.

Additionally, providing a student-centered approach to feedback collection may lead to more representative and actionable insights for program improvement. For example, feedback collection could be integrated into learning management systems or embedding into class activities. According to Todorova (2024), students value learning management systems with interactive elements, such as text-based discussions with instructors and video/audio feedback formats. Todovora (2024) goes on to say that video and audio feedback foster a sense of connection between students and instructors and has the benefit of clarifying complex points, making feedback more engaging and easier to understand.

Moreso, fostering a culture of feedback by regularly educating students on the purpose and impact of evaluations can contribute to sustained participation. Ramani et al. (2019) suggests that educational institutions can create a feedback culture by facilitating trusting relationships between teachers and learners, designating time for feedback, and establishing an understanding between teachers and learners about the process and content of feedback. Faculty should be encouraged to actively discuss evaluation outcomes with students to reinforce the value of continuous assessment and long-term improvements. A key finding of this project is that students emphasize the importance of seeing real change resulting from their feedback. Medina et al. (2019) recommends for educational institutions to create an assessment plan that outlines a release timeline for course evaluation results, a list of faculty members and/or administrators

who will receive result summaries, and how the evaluation results will be used. Furthermore, Medina et al. (2019) urges educational institutions to encourage faculty reflection and to offer mentoring to review and interpret evaluation results. Faculty members should summarize and quantify student comments, track results across multiple semesters using tables, and create an accountability action plan to address deficiencies (Medina et al., 2019). A more transparent communication strategy that outlines how past evaluations have led to course modifications could enhance student motivation to participate.

Strengths and Limitations

One of the primary strengths of this project is its focus on increasing student awareness and understanding of course evaluations through an accessible and technology-based intervention. By utilizing an infographic and an educational video, the project provided a cost-effective and scalable method for enhancing student knowledge. Furthermore, the project incorporated student feedback in the development of the intervention, ensuring that the materials addressed relevant concerns and were tailored to the target audience. The structured pre- and post-intervention survey design also allowed for measurable comparisons of student knowledge and intent to participate in course evaluations.

Despite these strengths, the project had limitations. The sample size was relatively small, which may have limited the ability to detect significant changes in student attitudes and behaviors. Additionally, the intervention primarily focused on increasing knowledge and awareness rather than addressing deeper motivational factors, such as the perceived impact of evaluations or concerns about anonymity. Some students also noted difficulties accessing the infographic in the video format, suggesting that future iterations of the project should consider alternative formats for improved accessibility. While the intervention was effective in raising

awareness, the relatively modest increase in students' intent to complete evaluations highlights the need for additional strategies, such as incentives or stronger faculty reinforcement, to drive behavioral change.

Implications and Sustainability

The generalizability of the findings is somewhat limited due to the specific context in which the study was conducted. Differences in student demographics, institutional policies, and program structures at other universities may influence the effectiveness of similar interventions. However, the core insights gained from this study, such as the importance of transparent communication, faculty encouragement, and accessible evaluation tools, are broadly applicable to higher education settings.

To promote sustainability, the findings of this project will be shared with the DNP CPD committee with the intent for other students to expand on the project in future semesters. Subsequent projects could explore the impact of peer-driven advocacy, where students encourage one another to participate in course evaluations. Additionally, students could implement alternative evaluation methods, such as qualitative student forums or faculty-student feedback sessions. This project accentuates components of a feedback process, such as prioritizing student engagement, faculty involvement, and technological integration, that are essential for course evaluations to remain a valuable tool for program improvement.

Conclusion

This quality improvement project highlights the challenges associated course evaluations and provides insight on potential strategies to boost student response rates. The educational infographic and video intervention successfully increased student awareness about course evaluations. However, additional measures, such as incentive-based participation, real-time

feedback integration, and further education on evaluation importance, may be necessary to drive response rates and to create a more engaged student body. By prioritizing these efforts, the DNP program can create a more responsive and student-centered evaluation system that drives meaningful academic improvements. When students see tangible changes resulting from their input, such as improved communication from the program, increased transparency regarding clinical training opportunities, or course content tailored to clinical practice, they are more likely to view evaluations as valuable.

Moreover, a well-structured evaluation system promotes accountability among faculty and administrators, ensuring that DNP coursework remains relevant to evolving healthcare standards. This responsiveness is crucial for preparing DNP graduates to be leaders in evidence-based practice, quality improvement, and patient-centered care. By optimizing the evaluation process, the DNP program strengthens its ability to produce highly competent nurse practitioners, educators, and healthcare leaders who are well-equipped to address the complexities of modern healthcare systems.

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Appendix A

DNP Student Interview Questions

1. Knowledge: What do you know about how feedback from course evaluations is utilized in the DNP program?
2. Knowledge: Are you aware of other formal processes in the DNP program, aside from course evaluations, for students to provide feedback? If so, please describe the other processes.
3. Knowledge: Describe your understanding of whether the UH SONDH course evaluation responses anonymous (or not)?
4. Knowledge: What is your understanding of how faculty use course evaluation data?
5. Knowledge: Please describe to the best of your knowledge how long course evaluations are available for completion each semester.
6. Knowledge: What do you think the DNP program course evaluation response rate goal is?
7. Attitude: What do you think is the significance of the response rate?
8. Attitude: In your opinion, what are reasons that students complete course evaluations?
9. Attitude: What are your thoughts on the following strategies for improving course evaluations:
    a. Incentives, such as extra credit
    b. Class time to complete course evaluations
    c. Paper evaluations
10. Practice: Are there other improvements that could be made to the course evaluation process that would increase student response rates?
11. What questions do you have regarding course evaluations?

Appendix B

Course Evaluations Student Pre-Intervention Survey

1. Knowledge: The UH SONDH DNP CPD (Curriculum and Program Development Committee) utilizes course evaluation results when considering program/curriculum updates.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
2. Knowledge: Course evaluation responses are anonymous.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
3. Knowledge: Student feedback provided via course evaluations is reviewed by the DNP program.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
4. Attitude: Completing course evaluations are a valuable use of time.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
5. Attitude: Other students complete the course evaluations.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
6. Practice: I intend to complete the course evaluations at the end of this semester.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
7. Practice: Describe why you have (or have not) completed course evaluations in the past.				
8. Practice: Describe suggestions for improving DNP student course evaluation completion rates.				

Appendix C

Course Evaluations Student Post-Intervention Survey

1. Knowledge: The UH SONDH DNP CPD (Curriculum and Program Development Committee) utilizes course evaluation results when considering program/curriculum updates.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
2. Knowledge: Course evaluation responses are anonymous.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
3. Knowledge: Student feedback provided via course evaluations is reviewed by the DNP program.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
4. Attitude: Completing course evaluations are a valuable use of time.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
5. Attitude: Other students complete the course evaluations.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
6. Practice: I intend to complete the course evaluations at the end of this semester.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
7. Practice: The infographic with video intervention increased my knowledge about course evaluations.				
1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
8. Attitude: Describe strengths and weakness of the infographic with video intervention.				
9. Attitude: Describe how the infographic with video intervention can be improved.				

Appendix D

University of Hawaii Human Studies Program Memorandum

Office of Research Compliance
Human Studies Program

UNIVERSITY of HAWAI'I SYSTEM

August 31, 2022

MEMORANDUM

TO: Rick Ramirez, DNP, APRN-Rx, AG-ACNP-BC, FNP-BC, ENP-C, CEN, CPEN
Doctor of Nursing Practice Program Director and Assistant Professor
AG-PCNP Specialty Coordinator
APRN Clinical Course Series Faculty Coordinator
University of Hawai'i at Mānoa
School of Nursing and Dental Hygiene

FROM: Victoria Rivera
Director, Office of Research Compliance, Human Studies Program
University of Hawaii

SUBJECT: Doctor of Nursing Practice Program

This memorandum intends to clarify the University of Hawaii (UH), Human Studies Program (HSP) position regarding the quality improvement (QI) project required by the UH School of Nursing and Dental Hygiene's Doctor of Nursing (DNP) Program.

Based on our prior discussions, students enrolled in the DNP Program are required to complete a QI project in order to meet the *AACN Essentials of Doctoral Education for Advanced Nursing Practice* for this professional degree. According to the AACN guidelines, since this is a practice doctorate, "requiring a dissertation or other original research is contrary to the intent of the DNP. The DNP primarily involves mastery of an advanced speciality within nursing practice."

Therefore, by definition, the DNP quality improvement project required by the UH School of Nursing is not considered human subjects research as defined under federal regulations at 45 CFR 46. To very briefly summarize, *research* is a systematic investigation designed to contribute to generalizable knowledge, and *human subject* means a living individual about whom an investigator conducting research obtains 1) data through intervention or interaction with the individual or 2) identifiable private information. Quality improvement/program evaluation focuses on making judgements about the program, to improve or futher develop program effectiveness, and inform decisions about future programming. As part of the DNP program, students are familiarized with the difference between conducting a QI project and a research project.

Given the purpose of the DNP quality improvement project, it is the position of the UH Human Studies Program that these projects are considered "NOT human subjects research" (NHSR) and as such, does not require IRB review. To be clear, this is not a determination of "Exempt" status under 46.101, as these are categories of *research* considered to be exempt from IRB review. Please ensure that DNP students understand that the results of these types of QI projects may be presented or published, but must not be labled as human subjects research.

Please feel free to contact our office for any questions.

copy: Allison Tse, SODNH Department Chair and Graduate Chair

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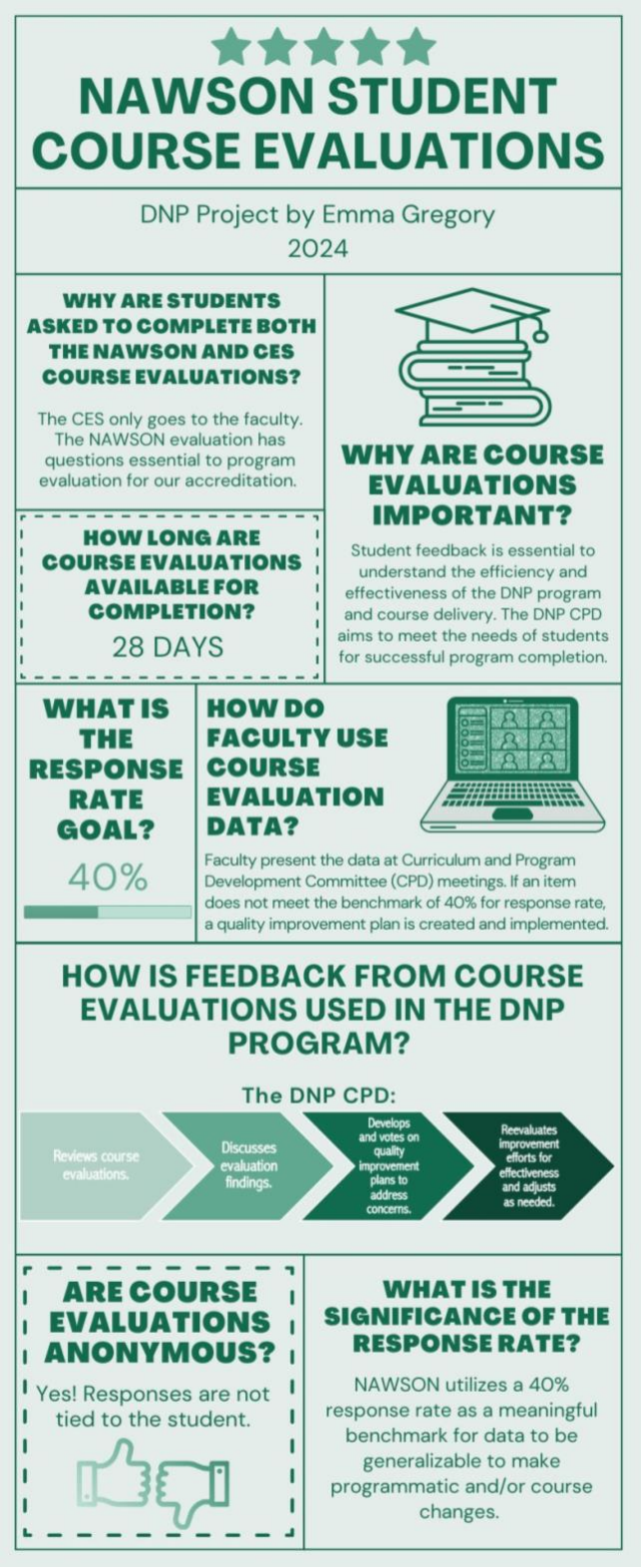
Appendix E

Educational Infographic



Appendix F

Course Evaluation Pre-Survey Open-Ended Responses

Questions	Responses
Describe why you have (or have not) completed course evaluations in the past.	• "The only reason I have completed evaluations is because I was unhappy with the way the course was taught, did not feel agree with the faculty members teaching, or because said faculty member really, really asked us to feel out the evaluations." • "Fear of retaliation." • "[Course evaluations] are often sent out during mid-terms and finals when I'm mentally preoccupied with studying. I also tend to gravitate towards verbal processing over written feedback." • "Completed the course evaluation in the past to hopefully have change be implemented as there are some policies and teachings in place that has not been conducive to me and my cohorts' learning. Additionally, in hopes to provide some sort of stability as the constant changes in scheduling, instructors and course distribution has not supported future planning for life outside of school." • "Students don't see instant changes from recommendations (which I'm assuming why they feel these surveys don't matter, dealing with a generation who live for instant results/gratification)." • "[Course evaluations] are just very time consuming." • "Tedious." • "Did not make the time to complete [course evaluations]."
Describe suggestions for improving DNP student course evaluation completion rates.	• "Offer extra credit." • "Ask different questions, rather than the "readiness/acumen" of the professor to teach the course." • "Offering alternative modes of giving feedback." • "Provide incentives for the completion of the survey and discuss the results and potential changes with the students to acknowledge that evaluations have been read and students have been heard." • "If it can be completed during class time or if it is shorter."

	• "Faculty explaining the importance of completing the evaluation and actually implementing student suggestions." • "Explaining the importance of completing evaluation and providing examples that has changed due to course evaluations."

Appendix F (Continued)

Course Evaluation Pre-Survey Open-Ended Responses

Questions	Responses
Describe strengths and weakness of the infographic with video intervention.	Strengths • "Lack of detail in content." • "Concise and very clear I liked the design." • "I like how it was brought up that only 40% of the class is expected to submit the survey, which I thought that it was higher. This is an interesting DNP project because students often feel frustrated that the work that they put into the evaluations aren't taken into consideration during the midterm eval. I think this is partially due to why the standards for survey completion is pretty low." • "This was really helpful because I did not understand why we had two different surveys." • "Strengths - it's always helpful to explain something in more detail." • "The infographic made the presentation more intriguing. The visual aspect made it easier to understand the importance of course evaluations." • "Clear succinct info on why it is important." Weaknesses • "Weakness - too long." • "Hard to read [the infographic] in the video on the survey because I could not get it larger."
Describe how the infographic with video intervention can be improved.	• "For those who need additional info, supporting document to explain the in-depth information may help understandings." • "Honestly it was a great info video, more information than I ever got about it in the past." • "Would love to have a PDF link to see it larger."

	• "The infographic was very informative, and I learned a lot about how the evaluations for the UH system works. There are no improvements that I could be made for the video, well done!" • "[The video] wouldn't allow me to view full screen, so I couldn't see the infographic in the background." • "Shorten the time." • "[Provide a] link to pdf of information." • "Greater information in detail."

Appendix G

Literature Matrix

Author(s), Title, Journal	Year	Purpose	Level of Evidence, Study Design	Subjects	Variables	Conclusion
Alvero, A. M., Mangiapanello, K., & Valad, J., The effects of incentives, instructor motivation and feedback strategies on faculty evaluation response rates in large and small class sizes., *Assessment & Evaluation in Higher Education*	2019	Assess incentives and instructor strategies on SET response rates.	Level I, Experimental study	College students	Incentives, response rates, instructor influence	Incentives improved SET response rates, especially in smaller classes.
Capa-Aydin, Y., Student evaluation of instruction: comparison between in-class and online methods., *Assessment & Evaluation in Higher Education*	2014	Compare in-class vs. online student evaluations of instruction (SET).	Level II, Quasi-experimental study	University students	Evaluation method (online vs. in-class), response rates, biases	Online evaluations may yield lower response rates but provide comparable feedback.
Crews, T. B., & Curtis, D. F., Online Course Evaluations: Faculty Perspective and Strategies for	2011	Explore faculty perspectives on online SET and ways to improve response rates.	Level II, Quasi-experimental study	Faculty members	Faculty strategies, SET completion rates	Faculty can boost response rates through reminders and incentives.

Improved Response Rates., *Assessment & Evaluation in Higher Education*						
Goodman, J., Anson, R., & Belcheir, M., The effect of incentives and other instructor-driven strategies to increase online student evaluation response rates., *Assessment & Evaluation in Higher Education*	2015	Investigate instructor-driven strategies to increase SET response rates.	Level II, Quasi-experimental study	College students	Faculty influence, incentives, SET participation	Active faculty engagement positively influenced SET response rates.
Lipsey, N., & Shepperd, J., Examining strategies to increase student evaluation of teaching completion rates., *Assessment & Evaluation in Higher Education*	2020	Examine strategies to increase SET participation.	Level I, Experimental study	University students	Completion rates, intervention strategies	Frequent reminders and perceived impact improve student participation.
Mau, R. R., & Opengart, R. A., Comparing Ratings: In-class (paper) vs. Out of Class (online) Student	2012	Examine differences in ratings between paper and online SETs.	Level II, Quasi-experimental study	College students	Mode of evaluation, student responses, completion rates	Online ratings tend to be lower than paper-based evaluations.

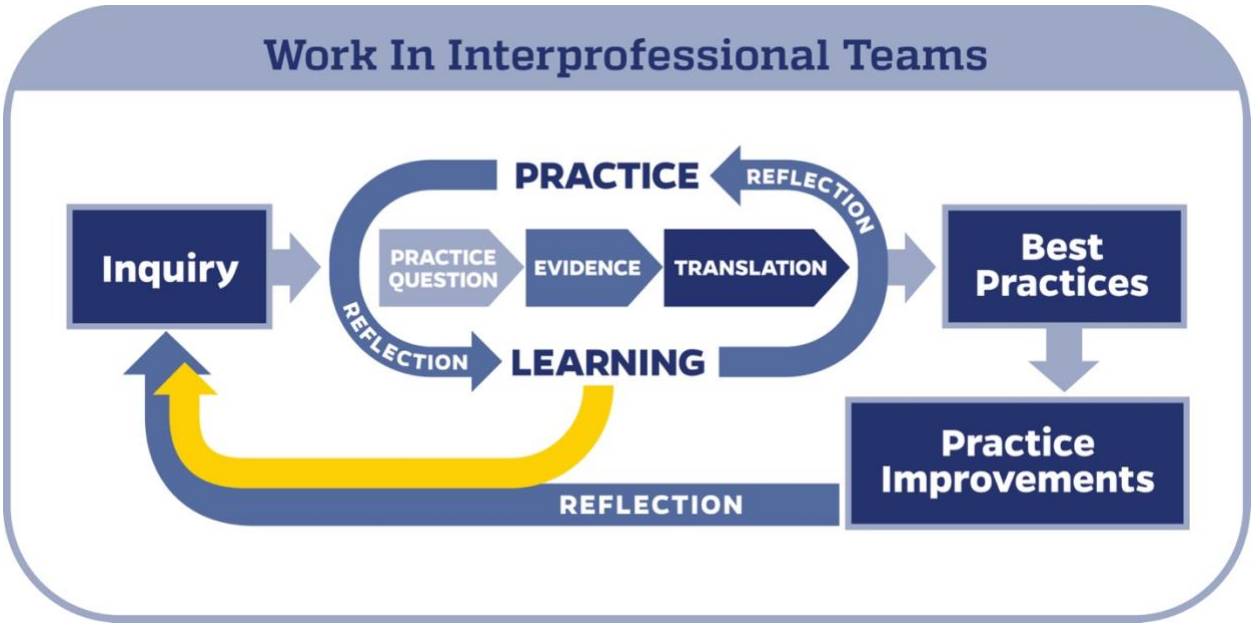
Evaluations., *Higher Education Studies*						
McAlpin, V.F., Algozzine, M., Norris, L.J., Hartshorne, R., Lambert, R.G., & Algozzine, B., A Comparison of Web-Based and Paper-Based Course Evaluations., *Journal of Academic Administration in Higher Education*	2014	Investigate web-based vs. paper-based course evaluations.	Level I, Experimental study	Higher education students	SET method, student response rates, faculty perceptions	Web-based evaluations showed lower response rates but similar feedback quality.
Medina, M. S., Smith, W. T., Kolluru, S., Sheaffer, E. A., & DiVall, M., A Review of Strategies for Designing, Administering, and Using Student Ratings of Instruction., *American Journal of Pharmaceutical Education*	2019	Review strategies for effective SET design, administration, and usage.	Level III, Non-experimental study	College students & faculty	SET design, student engagement	Best practices include transparency, frequent evaluations, and incentives.
Morrison, R., A comparison of online versus traditional student end-of-course critiques in resident courses., *Assessment &*	2011	Compare online and traditional student critiques.	Level I, Experimental study	University students	Evaluation mode, student engagement	Online evaluations were more convenient but had lower participation.

Evaluation in Higher Education						
Perrett, J.J., Exploring graduate and undergraduate course evaluations administered on paper and online: a case study., *Assessment & Evaluation in Higher Education*	2013	Study graduate vs. undergraduate evaluations (paper vs. online).	Level I, Experimental study	Undergraduates & graduates	Evaluation method, response rates	Graduate students were more likely to complete online evaluations.
Standish, T., Joines, J. A., Young, K. R., & Gallagher, V. J., Improving SET Response Rates: Synchronous Online Administration as a Tool to Improve Evaluation Quality., *Research in Higher Education*	2018	Assess online synchronous administration to improve SET quality.	Level II, Quasi-experimental study	University students	SET administration timing, response rates	Synchronous online SET increased participation and evaluation quality.
Sundstrom, E. D., Hardin, E. E., & Shaffer, M. J., Extra Credit Micro-Incentives and Response Rates for Online Course Evaluations.,	2016	Test micro-incentives for improving SET response rates.	Level I, Experimental study	Psychology students	Incentives, participation rates	Small incentives significantly improved response rates.

Teaching of Psychology						
Young, K., Joines, J., Standish, T., & Gallagher, V., Student evaluations of teaching: the impact of faculty procedures on response rates., *Assessment & Evaluation in Higher Education*	2018	Evaluate the impact of faculty procedures on SET response rates.	Level II, Quasi-experimental study	University students	Faculty engagement, student motivation	Faculty involvement in SET discussions improved response rates.

Appendix H

JHNEBP Conceptual Framework



Appendix I

JHNEBP Model for Levels of Evidence (Dang, et al., 2022)

JHNEBP Quality of Evidence	**Number of articles obtained (total of 13)**
Level I: Experimental Studies	6
Level II: Quasi-Experimental Studies	6
Level III: Nonexperimental, including qualitative studies	1
Level IV: Clinical practice guidelines or consensus panels	0
Level V: Literature reviews, QI, case reports, expert opinion	0