NURSE EDUCATORS' BELIEFS AND PERCEPTIONS OF GIVING FEEDBACK IN ONLINE RN-BSN PROGRAMS

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Abstract

This exploratory quantitative study investigated nurse educator beliefs and perceptions regarding giving feedback in online RN-BSN programs. The survey was developed to discover trends among nurse educators (*N=76*) in attitudes towards feedback and students, use of feedback strategies for learning, and perceived characteristics of feedback used in practice. Hattie's (2009) model of feedback provided the framework.

Key Findings: Nurse educators value the importance of feedback for student learning and success. Preferences for choice of tools to use for providing feedback trended to more traditional choices of shared documents, asynchronous tools, and email. Positive attitudes about students and feedback were identified related to student involvement and engagement, application and interest, as well as agreement with feedback. Positive attitudes regarding practice were identified including role, efficacy at the application of feedback strategies, and formatting styles. Minimum differences in beliefs and perceptions were identified when compared to education, experiences, and employment status.

Limitations: Potential sample bias as the participants were identified as educators registered to teach within Shadow Health's RN-BSN assessment modules. The newly developed survey requires further testing for validity.

Discussion and recommendations: The results suggest that there has been movement to improve feedback practices in nursing education. Faculty development opportunities that center on strengthening use of feedback strategies and use of supportive technology will contribute to further improvement in feedback practices. Improvement in feedback strategies will contribute to the education of RN-BSN nurses to prepare them to thrive in practice within complex healthcare delivery systems.

Key Words: Feedback, RN-BSN education

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Introduction

A proliferation of medical science and technological advances has led to changes in the delivery of health care over the past several years. These changes have implications for nursing practice, driving the need to consider changing the way we prepare nurses to function in complex health care delivery settings. Instructor feedback to nursing students has been identified as one piece of the recommended changes that need to be made (Benner, Sutphen, Leonard, & Day, 2010). This study explored nurse educators' beliefs and perceived practices in giving feedback in online Registered Nurse-to-Bachelor of Science in Nursing (RN-BSN) programs that may inform administrators in nursing education of potential areas for faculty development.

Problem Statement

There has been a call to transform nursing education for professional practice (Benner et al., 2010). Changes in teaching strategies were recommended. The prevalent teacher-centered strategies of presenting a lecture and then, administering a quiz, should be avoided, even removed from classroom instruction. Whereas, student-centered strategies involving instructor-student interactions should be encouraged. Benner et al. (2010) recommended strategies such as coaching, connecting concepts from theory to practice, promoting multiple ways of thinking, and supporting student development of professional identity for practice. These strategies would be more effective to prepare nursing students for professional practice within complex healthcare delivery systems (Benner et al., 2010). Student-centered strategies are integrated in the process of feedback.

Traditional nursing education began as training programs that were task-oriented and designed to assist the physicians' practice in caring for the sick and injured (Committee on Education of the National League of Nursing Education [NLN], 1919; 2007). It can be assumed that feedback given in this context was related to performing tasks correctly. As nursing started to develop into a profession, ideas for educating nurses evolved, including establishing qualifications for licensure, designing core curricula, and having nurses teach nurses (NLN, 2007). In RN preparation programs, feedback addresses task performance in the clinical setting as well as scholastic performance in the academic setting. At issue has been the Associate Degree in Nursing (ADN) versus the Bachelor of Science in Nursing (BSN) degree as qualification for entry-level registered nurse (RN) practice. A national standard for entry-level practice is established through the National Council Licensure Examination – RN (NCLEX-RN). Graduates from either ADN or BSN programs may sit for the NCLEX-RN and must pass to obtain RN licensure from their states' board of nursing. However, requirements and specific content for the RN-BSN curriculum are still not standardized, resulting in variences among RN-BSN programs. Several states do not have regulatory oversight for RN-BSN programs (New Hampshire Board of Nursing, 2018). Variances in RN-BSN program content may influence beliefs and practices in providing feedback.

Nursing programs now predominantly have nurses teaching nurses. Instructors are typically hired for their clinical expertise and the majority have not participated in formal training as educators (McDonald, 2007). Recently, Reynolds (2015) found that 56.3 percent of nursing faculty surveyed from pre-licensure programs in New York State had no formal training on grading practices. A team of instructors without specific training in pedagogy many not have discovered effective strategies in providing student-centered feedback. It would be useful to

understand nurse educators' perspectives about providing feedback. Such knowledge may identify opportunities for professional development and advance nursing practice.

Traditions continue to influence nursing education. Traditional teaching strategies in nursing programs consisted of memorizing content and performing skill tasks (Benner et al., 2010). In light of the explosion of scientific knowledge and technology, it is now unreasonable to expect student nurses to memorize all knowledge related to the multiple areas of nursing practice. Rather, entry-level nurses need to learn how to use knowledge to apply it in their practice (Benner et al., 2010). There have been two notable calls to reform nursing education. In the 1980's, the call focused on minimizing content overload in nursing curricula. In 2010, the call was for a transformation in how we educate nurses.

A call from National League of Nursing (NLN) went out in the 1980's to change pedagogy and program design in nursing education. Tanner (2007) described that this call went out in response to content over-load of nursing curricula and dependence on behavioral and objective testing approaches in teaching. However, subsequent NLN evaluations of nursing programs indicated programs made no significant pedagogical changes, instead, content was added and moved around.

Benner et al. (2010) argued that the complexity in health care has continued to multiply. The gaps between education and practice have increased. Clinical training and skills needed for professional practice are more complex. Memorization and basic practice skills are not effective to prepare nurses to perform in today's complex health care system. Benner et al. (2010) called for shifts in thinking about nursing education, to transform teaching practices. They recommended that the approach to nursing education integrate a knowledge base, skilled know-how, and clinical reasoning with ethical comportment.

There have been a few innovations within nursing programs that respond to the changes recommended by Benner's et al. (2010). For example, St. Angelo (2017) announced structural changes planned for Johns Hopkins Nursing to allow physical spaces for mentoring and collaboration for faculty and students. Additionally, Stevens and Nies (2018) recommended the use of social media strategies to engage students in learning and collaboration.

Threaded throughout their discussion, Benner et al. (2010) wrote of the need to promote the students' skill of articulation (of clinical findings, applied knowledge, and ethical comportment) through verbal and written modes throughout all stages of the educational process. The specific issue of instructor-feedback on student writing is mentioned briefly in the report. In the online educational environment, writing is the predominant mode of communication. Therefore, written feedback plays an enhanced role in instructor-student interactions in an online program.

Feedback is a familiar human experience, such as feedback experienced in all our interactions with family members, friends, employers, and others we may meet. In the educational environment, we receive feedback from our teachers. Although the human experience is familiar with feedback, the concept of feedback is not uniformly understood (Ramaprasad, 1983). There have been multiple studies that looked at feedback in educational settings, but only a few have looked specifically at nursing education, and fewer have looked at online nursing education for the RN-BSN student in the context of the role of instructor-feedback in transforming nursing education.

Three significant authors have contributed to the concept of feedback and its development in the educational setting. According to Ramaprasad (1983), "feedback is information about the gap between the actual level and the reference level of a system parameter

which is used to alter the gap in some way" (p. 4). Hattie (2009) described feedback in a learning context as what teachers give to students to fill in the gaps between what is understood and what was intended to be understood. He elaborated that this feedback also informs teachers about the effectiveness of their teaching strategies. Wiggins (2012) furthered these concepts to indicate feedback in learning is related to progress made in reaching goals. Previous experiences with feedback influence how we receive feedback and how we give feedback to others (Hattie, 2009; Wiggins, 2012). The complexity of feedback in the learning environment is well-represented by Hattie's (2009) model of feedback, which identified the following key concepts: teacher and student influences on the feedback process, three types and four levels of feedback, as well as relationships between types and levels of feedback.

Two studies, O'Flynn-Magee and Clauson (2013) and Bonnel & Boehm (2011) provided insight about nurse educators' perceptions and practices related to feedback. O'Flynn-Magee and Clauson (2013) found in their qualitative study that nurse educators perceived feedback as integrated into the grading process. Feedback was valued by nurse educators as a factor for student nurse success and for supporting students' learning. In O'Flynn-Magee and Clauson (2013), nurse educators identified that feedback was an important part of their role. It cannot be assumed that these values and beliefs apply to other nurse educators.

Another study by Bonnel and Boehm (2011) investigated practices of experienced nurse educators with giving feedback in online courses. These researchers administered a survey with open-ended questions to a group of nurse educators, identifying then verifying themes. Themes included (Bonnel & Boehm, 2011)

- the importance of feedback for student learning
- the importance to the role of the online nurse educator in giving feedback

- use of best practices including
    - Best available tools (technology, rubrics, templates, automated responses)
    - Having a system (Approach) (be proactive, guide and coach, synthesize, schedule, timely, communicate clearly, etc.)
    - Create feedback-rich environment (variety of opportunities to give feedback through diverse types of assignments)

The themes from both studies can be used to connect the theory of feedback (Hattie, 2009) to the beliefs about feedback among nurse educators who teach in online RN-BSN programs. Understanding the instructor perspective will inform nursing program administrators of potential opportunities for faculty development that will promote transformation of nursing education.

Statement of Purpose

The purpose of this study was to investigate nurse educators' beliefs and perceptions related to giving feedback in online RN-BSN programs. Feedback in this study refers to the information given between the nurse educator and student in response to a student's assignment, performance, or inquiry. It incorporated concepts from Hattie's (2009) model of feedback, including types of feedback (feed up, feed back, feed forward) as well as the levels of feedback (task, process, self-regulatory, self). Hattie's (2009) model of feedback provided the framework to align Benner's et al., (2010) recommended strategies of coaching, connecting concepts between theory and practice, promoting multiple ways of thinking, and supporting students' development of professional identity for practice. The study also explored trends among faculty perceptions of the importance of the educator role in providing feedback, the value of feedback on student learning and success, and tools used to support the process of providing feedback.

Communication strategies used in face-to-face environments differ from strategies needed in online environments. Often, the asynchronous classroom does not allow the participants to observe behaviors or see facial expressions, which provide communication cues for both instructors and students. Bonnel and Boehm (2011) identified emerging technology, such as audio and video, which may supplement online classroom experiences. Questions related to instructor perceptions of interpreting and evaluating student writing, modes of communicating instructor feedback and evaluation, the influences of technology, and expected outcomes from instructor feedback are important to explore. This study will contribute to the continuous process of improving nursing education by identifying potential areas for faculty development to enhance feedback and promote student success.

Research Questions

The study sought to identify trends among nurse educator perceptions regarding beliefs and practices on giving feedback to online RN-BSN students on assignments. The study was designed to answer the research question

> What do nurse educators believe about feedback to students in online RN-BSN programs?

There are seven sub-research questions (RQ) that will help to answer the overarching research question.

- RQ1 What degree of importance do nurse educators place on providing feedback to students in RN-BSN programs?
- RQ2 Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs?

- RQ3 Which attitudes and beliefs do nurse educators hold regarding students and feedback?
- RQ4 Which attitudes and beliefs do nurse educators hold regarding their role and practice of feedback?
- RQ5 What strategies do nurse educators identify that feed up, feed back, and feed forward?
- RQ6 What characteristics do nurse educators identify which address task, process, and self-regulation?
- RQ7 What are the differences between nurse educators' perceptions based on experiences, education, and employment status?

Target Population

Participants are nurse educators (*N=76*) who teach RN-BSN students online. This sample population is representative of nurse educators from RN-BSN programs within schools of nursing in the United States who have various teaching experience. The survey invitations (See Appendix A *Survey Invitation*) for this study were distributed via one-time email by Shadow Health to 605 nurse educators who were registered as instructors for Shadow Health's RN-BSN assessment program. It is assumed that these nurse educators have specific skills with health assessment and have had at least an orientation to the technology used by Shadow Health, Inc.

Shadow Health is a company that supplies an online Digital Clinical Experience © (DCE) to a variety of nursing schools in the USA and Canada for use as a supplement to teaching nursing health assessment. Colleges or universities using the DCE offer various nursing degree programs, such as ADN, BSN, RN-BSN, and MSN. As of November 2017, 230 colleges or universities were specifically identified as having RN-BSN programs that use the DCE. These

colleges and universities may offer different program modalities, such as face-to-face, blended, or online. However, Shadow Health does not distinguish if the college or university delivers their base course online or not (Personal communication, Francisco Jimenez, January 4, 2018). One of the sample limitations is that only schools of nursing who utilize the company's product are represented. There may be other online RN-BSN programs that do not use the DCE and are not represented.

Theoretical Framework

The framework for this study is adapted from Hattie's (2009) model of feedback. The model of feedback begins with the purpose of feedback: "To reduce discrepancies between current understandings/performance and a desired goal" (Hattie, 2009, p. 176). Knowing faculty perceptions of the purpose of providing feedback could lead to an understanding of factors influencing the practice of giving feedback.

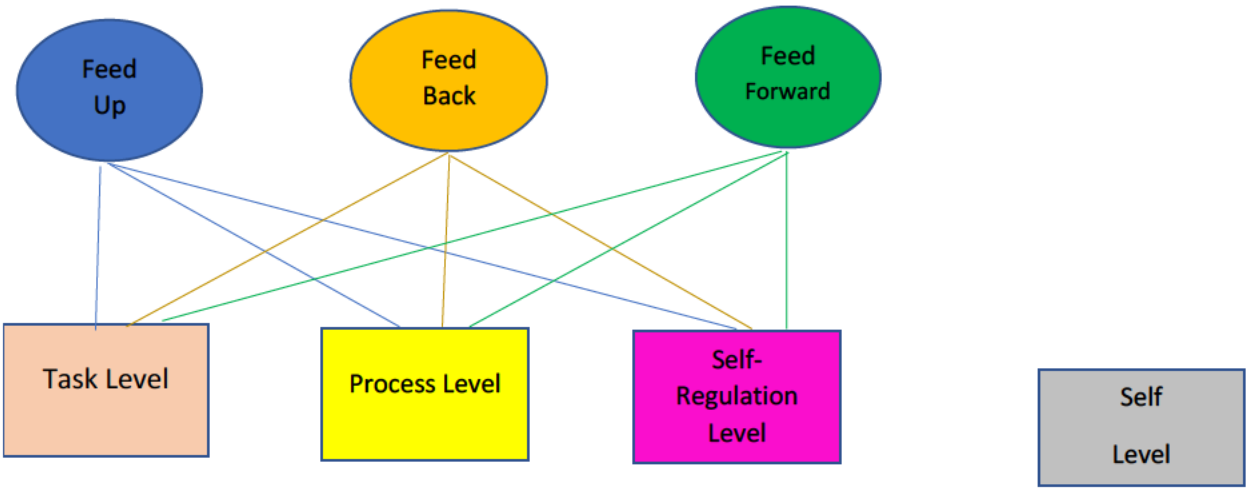
Hattie's (2009) model of feedback is designed with three domains: reducing discrepancies, types of feedback, and levels of feedback. Both teachers and students could reduce discrepancies between understanding and performance. For teachers, actions to reduce discrepancies relate to providing challenging and specific goals or assisting students to reach the goals through feedback. Changing program or course goals may not be an option for many online nurse educators who are assigned a course within an established curriculum. Many online programs develop the courses for the instructors to maintain quality and consistency between sections of the course and instructors (Youger & Ahern, 2015). In such cases, nurse educators must work with what they are given in the courses they teach. However, they do have options in providing feedback. For students, actions to reduce discrepancies relate to effort, strategies, and

attitude toward goal accomplishment. This study did not explore the student perspective. It investigated the faculty perceptions about student engagement with feedback.

The adapted model includes the types and levels of feedback (See Diagram 1 Operationalization of the Feedback Model).

Diagram 1

Operationalization of the feedback model



Adapted from Hattie's (2009) model of feedback and expanded explanation in Hattie (2012)

The types of feedback correspond to three questions to answer in order to provide effective feedback: feed up (*Where am I going?*); feed back (*How am I going?*); and feed forward (*Where to next?*). Framing feedback to answer these questions can close gaps between what the student understands, what he/she needs to understand, and what is needed in order to advance to the next level of understanding (Hattie, 2009). The complexity of feedback comes from the levels of feedback.

The model operationalizes four levels of feedback: Task Level, Process Level, Self-Regulation Level, and Self Level (which, in Hattie's model, is connected by a broken line). The task level is the understanding or performing of the task. Feedback at this level is directed to

build on what the student knows. The process level addresses the process needed to understand or perform the task. The self-regulation level directs or guides the student to analyze aspects of his or her understanding or performance, with efforts guiding the student in a certain direction, or motivating the student to figure out how to improve or continue further. These three levels correspond to recommendations for nursing practice through coaching, connecting concepts between theory and practice, promoting multiple ways of thinking, and supporting students' development of professional identity. However, the self level is directed at the self, or personal attributes. Self level feedback does not contribute to achievement because it does not respond to the feedback questions in the model. Even so, it is a type of feedback that is often given (Hattie, 2009). Hattie (2009) identified that this level of feedback often occurs in the form of praise or punishment. It may or may not provide encouragement (e.g., it may "backfire"). Hattie (2009) recommended that when self level feedback is given, it should be given separate from feedback given for learning.

The process of teaching and learning moves through the three levels, towards gaining mastery. Hattie (2009) pointed out that the feedback model also informs the teacher about the teaching. If a student has not been successful with the task level, simply providing feedback that the understanding is not evident may not move the student forward. Further instruction may be needed. The teacher may have to consider if another strategy could be used to help the student reach understanding. If nurse educators realize a gap in student achievement of an expected level, do they consider new strategies to fill the gap?

Overview of Methodology

This exploratory quantitative study used an online survey that contained fifty-eight items (See Appendix C *Survey Instrument*). There were 14 items to collect demographic information

including age-range, gender, education level and degree focus, teaching experience, current position, training about giving feedback, and professional practice areas. The value of feedback attributed to student success and learning were measured by a 5-pt Likert scale with two items. Five items were designated for participants to choose tools used for providing feedback in online courses. There were 12 items related to beliefs about student engagement with feedback and 9 items related to faculty engagement with feedback that were measured with 5-point Likert scales. An additional 15 items focused on perceived feedback characteristics. One open-ended question invited the participant to provide further comments about feedback.

Analysis

Survey items were carefully mapped to the sub-research questions (See Table 1.2 *Mapping Research Questions to Survey Items).* Sub-research questions 1-6 were analyzed using descriptive statistics to identify trends in attitudes, beliefs, and tool choices. Sub-research question 7 was analyzed using inferential statistics through Kruskal-Wallis tests to identify differences with attitudes, beliefs, and tool choices based on experience, education, and employment status. Qualitative methods were used to determine themes of additional information offered as comments (Appendix C *Survey Instrument*). A full discussion of survey development is given in Chapter 3.

Table 1.2

Mapping Research Questions to Survey Items

What do nurse educators believe about feedback in online RN-BSN programs?

	Research Questions	Survey Items	Analysis
RQ1	What degree of importance do nurse educators place on providing feedback to students in RN-BSN programs	II-1, 2	Descriptive
RQ2	Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs?	III-1, 2, 3, 4, 5	Descriptive
RQ3	Which attitudes and beliefs do nurse educators hold regarding students and feedback?	IV-1, 2, 3, 4, 5, 6, 7, 8, 9	Descriptive
RQ4	Which attitudes and beliefs do nurse educators hold regarding their role and practice of feedback?	V-1, 2, 3, 4,5, 6, 7, 8, 9; VI 3, 9, 10	Descriptive
RQ5	What strategies do nurse educators identify that feed up, feed back, and feed forward?	V-4, 5, 6 VI-5,15; 4, 8; 7, 11	Descriptive
RQ6	What characteristics do nurse educators identify which address task, process, and self-regulation?	VI-1, 2, 14; 11, 8; 6, 12, 13,	Descriptive
RQ7	What are the differences between nurse educators' perceptions based on experiences, education, and employment status?		Kruskal-Wallis Tests
	Participant demographics Screening teach in RN-BSN program Experience & Education Employment	I-1 I-2, 3, 4, 5, 6, 7, 11, 12, I-8, 9, 10, I-13, 14	
OTHER	Write-in	VII- write-in response to capture additional information about feedback	Theme

Validation

Survey items were developed or modified from concepts identified in research literature. The survey was reviewed for clarity of survey items, omissions, typos, and ease of use by an experienced nurse educator and an experienced data analyst. Time to complete the survey took 11 and 14 minutes. Potential participants were informed the survey would take 10 – 15 minutes to complete.

Rationale and Significance

The rationale for conducting this study is that a survey of faculty beliefs and practices regarding providing feedback in online RN-BSN programs will inform nursing program administrators of potential areas for faculty development to improve teaching. Surveying a broader audience of nurse educators beyond that within a single program, may identify predominant beliefs and practices among nurse educators. The findings may be useful in nurse educator training programs. Improving instructor feedback will help student success and prepare better trained nurses in the workforce.

Role of the Researcher

The role of the researcher is to plan and conduct the research study (Bloomberg & Volpe, 2012). In planning, a history of feedback in education literature was conducted. The researcher considered various study designs, potential participants, research questions, and theoretical frameworks, and discussed current issues in nursing education programs with fellow nurse educators. The current literature looking at nursing education has several inquiries about the student perspective. There are qualitative studies that have investigated small samples of nurse educators within single- or double-case studies. Therefore, an exploratory, quantitative study design was used to investigate perceptions from a larger population of nurse educators.

Survey instruments from previous qualitative studies were adapted to a quantitative design. Items found in those qualitative studies are listed as variables from which participants select in the quantitative survey. A quantitative study conducted by Bagwandeen and Singaram (2016) investigated perceptions of physician-educators providing feedback to medical students. Permission was obtained to adapt their survey instrument for this study exploring perceptions of nurse educators and nursing students (Personal communication C. Bagwandeen, June 17, 2017). Concepts from the studies were blended into a new survey instrument, *Nurse Educators' Perceptions about Feedback in Online RN-BSN Programs* (See Appendix C *Survey Instrument*). Other steps in the process were coordinated with the dissertation committee, including literature review, methodology, survey refinement, data collection and analysis, final dissertation, and dissemination of results.

Researcher's Assumptions

As with any research, there are inherent biases to identify. This researcher has background experience of being hired as a clinical expert to teach nursing students the art and science of clinical practice, without orientation to grading practices. Teaching experiences with students and collaboration with faculty have influenced the following assumptions:

- Instructors in nursing education do not always have formal training on giving feedback.
- Instructors in nursing education may not understand terminology related to feedback concepts.
- Students need feedback to reflect on current practices and to make decisions on changes they need to make to improve practice.

- Goals and objectives need to be clearly stated so that students know expectations and are graded according to expectations.
- Knowing instructors' perception of their role in providing feedback, their values related to feedback, barriers in providing feedback, and how feedback is given will inform administrators of potential professional development activities that promote student success.
- There will be reporting bias from instructors by nature of instructors' individual perspective of their effectiveness in giving feedback.

Definition of Terms

RN-BSN. Students enrolled in a Baccalaureate program for nursing who are licensed to practice nursing. (They have passed the national qualifying exam, NCLEX-RN). Students have an Associate Degree or Diploma in nursing and may or may not have a Baccalaureate from another discipline.

Face-to-face. Refers to courses that are delivered synchronously in a physical classroom with instructors and students present.

Online. Courses are delivered through a learning management system, without face-to-face courses in the curriculum.

Instructors. Generic term for all faculty teaching in RN-BSN programs, regardless of academic rank. Some of the literature also refer to instructors as nurse educators.

Feedback. Information given by instructors to RN-BSN students about their work and/or performance in class. Feedback is formative in nature but may also be included in both formative and summative assessments. It is not the evaluation (grade). Rather, it is information about the

student's work, how well they met the objective, what they could do to improve in meeting the objective, and suggestions for further development.

Summary

A landmark study (Benner et al., 2010) called for a transformation of nursing education to better prepare nursing students to function in complex medical systems. Recommended strategies, such as coaching, making connections, promoting critical thinking, and supporting professional identity may be carried out through feedback. Qualitative studies have identified nurse educator perceptions of attitudes, strategies, and mechanics of providing feedback. This study sought to determine if these perceptions are shared across a larger group of nurse educators through a quantitative survey design. The next section will provide a literature review of key concepts about feedback.

Chapter Two: Literature Review

Introduction

This section reviewed relevant literature to highlight key concepts related to feedback in educational settings. Searches conducted from education and nursing literature provided the background to define feedback and a framework for looking at research about feedback, practices by educators in higher education with distinguishing factors between face-to-face instruction and online instruction, student perspectives of feedback from faculty, and practices in nursing education with distinguishing factors between clinical instruction, face-to-face instruction, and online instruction. The literature review revealed the challenges for nurse educators and that there is a gap in understanding the beliefs and perceived practices of providing feedback to students in an online RN-BSN program. This gap has implications for faculty development opportunities and for efforts toward quality improvement in programs that prepare the RN for baccalaureate-level practice.

The Call to Transform Nursing Education

A landmark study about educating nurses (Benner, Sutphen, Leonard, & Day, 2010) provided the inspiration to study the nurse educator beliefs about providing feedback in online RN-BSN programs. The study uncovered practices based on traditional strategies that are inadequate to prepare nurses to function in complex health care systems. The authors recommended a radical change from the traditional lecture-testing strategies which simply promote students to gain knowledge, into strategies that promote critical thinking and the use of knowledge in clinical decision-making. Benner et al. (2010) described strategies that are conducted through feedback, such as coaching, connecting concepts between theory and practice, promoting multiple ways of thinking, and supporting students' professional identity development

for practice (dispositions). These strategies are based on instructor-student interactions which depend on the process of feedback.

Traditional teaching strategies called for memorizing content and performing skill tasks. Apprenticeship training (learn by doing) was the main mode of preparation. Scholastic skills and preparation are relatively new to the field (Committee on Education of the National League of Nursing Education, 2007). With a proliferation of medical science and technological advances, the knowledge content for entry-level nursing programs has multiplied. Clinical training and skills needed for professional practice are more complex. Memorization and basic practice skills are not effective to prepare nurses to perform in today's complex health care system (Benner, Sutphen, Leonard, & Day, 2010). To further understand the significance of feedback in educating nurses, there is a need to grasp key concepts about feedback in the literature.

Defining Feedback

We all have received feedback in some form or another. Children and adults receive feedback from multiple sources in their environments every day. It is difficult to imagine the human experience without feedback. Though the human experience is familiar with feedback, the concept of feedback is not uniformly understood. Three significant authors have contributed to understanding feedback, including the concept of feedback (Ramaprasad, 1983) and its development in educational settings (Hattie, 2009; Wiggins, 2012).

Ramaprasad (1983) described diverse perspectives about the concept of feedback, identifying variances between disciplines and even within disciplines. He attempted to clarify the definition of feedback in the context of management theory, drawing from other definitions of feedback. According to Ramaprasad (1983), "feedback is information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some

way" (p. 4). He went on to describe three crucial points about this definition related to (a) the focus of feedback, (b) the conditions needed for feedback, and that (c) information about the gap is only feedback "when it is used to alter the gap" (p. 5). Attending to these critical elements of feedback provide a context with which to analyze the effectiveness of the mechanism of feedback leading to the intended consequences.

In more contemporary definitions, Hattie (2009), described feedback as what teachers give (or think they give) to students, elaborating that the feedback also informs the teacher about modifying teaching strategies to promote student learning. Hattie (2009) continued to identify that feedback fills in gaps between what is understood and what was intended to be understood. Wiggins (2012) closely aligns to Ramaprasad (1983) and Hattie (2009). Wiggins (2012) described feedback as "information about how we are doing in our efforts to reach a goal" (p. 10). The information becomes feedback when there is an intent or goal, and the information indicates if the person is meeting the goals. He contrasted this definition with advice, performance evaluation, and assignment of grades, indicating that many people inaccurately think that giving feedback is for telling the person what to do [to be right or better] or for making a judgment through evaluation. Thus, conversations about grading and assessing students become integrated in conversations about feedback. These perspectives add to the complexity of thought about feedback.

Further Delineations

The authors have further delineations to clarify the concept of feedback. There must be a *system parameter* (Ramaprasad, 1983) or measured goal (Hattie, 2012; Wiggins, 2012). Wiggins (2012) would argue that feedback should also report information about progress in meeting the final performance standards, not only the current goals or the parameters in getting there. With

this addition, instructor-feedback to students might extend the information from goal achievement within an individual assignment to make connections to achievements on course and program outcomes. Similarly, Hattie (2012) described three levels of feedback relating to learning including task, process, and self-regulation. This could represent student's knowledge of content, the student's understanding the steps to reach the goals, and the application towards future understanding. Hattie's (2009) model of feedback provides a framework to connect the levels and types of feedback to Benner et al. (2010) recommendations. Benner et al. (2010) described the need for nursing students to be able to identify information (knowledge), apply that knowledge from multiple perspectives (critical thinking) to make connections between theory and practice, and to develop ethical comportment, or the attitudes and professional identity for nursing practice (dispositions). In the context of this study, feedback will be referred to as the information given between the nurse educator and student in response to a student's assignment, performance, or inquiry. The meaning and characteristics of faculty-perceived feedback were examined in the study.

Positive and Negative Feedback

The concepts of positive and negative feedback are perceived differently in the literature, further complicating the discussion defining feedback. Ramaprasad (1983) cautioned about the tendency to inaccurately characterize feedback according to the mechanism of delivering feedback information, rather than referring to the characteristic of feedback itself. Ramaprasad would characterize positive feedback as that which occurs when there is an increase in the gap between actual and desired performance. Negative feedback occurs when there is a decrease in the gap between actual and desired performance. These definitions show that distinguishing the characteristics of positive and negative feedback lies in the gap information. However, some

might characterize feedback from a mechanism of feedback delivery, which is based on an emotional perspective. The emotional perspective of feedback relates to the action, rather than a characteristic of feedback (Ramaprasad, 1983). A positive emotional component, such as encouragement, is considered positive feedback because encouragement may make the worker feel happy. A negative emotional component, such as reprimand, is considered negative feedback because reprimand may make the worker feel unhappy. Both feedback mechanisms represent negative feedback, according to Ramaprasad, because both attempt to decrease the gap between expected and actual performance.

These emotional perspectives of feedback, as described by Ramaprasad (1983), are more closely related to the behavioral concepts of positive and negative *reinforcement*. Finkelstein and Fishbach (2012) premised that both positive and negative feedback should be constructive and suggest corrective action. Positive feedback focuses on "strengths, correct responses, and accomplishments," whereas negative feedback focuses on "weaknesses, incorrect responses, and lack of accomplishments" (p. 22). In both instances, the feedback addresses the accomplishment or improvement on the task or skill and does not label the person's self. They reported that people seek and respond to either positive or negative feedback, depending on their personal motivation, goals, and level of expertise with the skill. In the literature review, references to positive and negative feedback may have different significances, confusing the dialogue about feedback.

Feedback Error

The person providing feedback should be aware of the phenomena of *feedback error*. In establishing criteria about a goal, there are unlimited opportunities for error in giving feedback. According to Ramaprasad (1983), feedback error occurs when the criteria to be measured is not

clear and/or the measurement of the criteria is not accurate. As a result, the inferences from the information is faulty, leading to feedback error. Individual differences in perception may affect the interpretation of the measurement (subjective judgment). Ramaprasad wrote of the need to gain consensus on criteria and having a scale to measure differences in expected and actual outcomes. Applying Ramaprasad's description of feedback error to the educational setting, examples of contributors of feedback error may be found in the design of the assignment, the criteria being measured, tools used for measuring, and the subjective perspectives and understandings of and between both the teacher and the students. Having an awareness of the possibility of feedback error may help teachers to be pro-active to identify potential opportunities for feedback error, to design strategies that may avoid feedback error, and to effectively manage feedback error events. For the educational leader, it would be beneficial to know if nursing faculty are aware of this phenomenon of feedback error.

Other Criteria for Defining Feedback

Establishing the criteria to measure, delineating clear representation of the criteria and goals, or how to communicate the criteria to the stakeholders are important considerations for research. Wiggins (2012) identified characteristics of helpful feedback, such as goal-referenced, tangible and transparent, actionable (useful), user-friendly (to be specific and personalized), timely, ongoing, and consistent. Hattie (2007) asserted that feedback must have meaning for the receiver. Studies on measuring outcomes, such as rubrics and calibration, are also prevalent. Trends to distinguish formative and summative assessments propose that distinctive styles of feedback are used for each type. Ovando (1994) identified three purposes for feedback; diagnostic, formative, and summative, all of which provide information to the learner and teacher about their performance "so that modifications and adjustments can be made" (p. 20).

Interpretation of the information and information sharing mechanisms have been studied. A review of studies and reports attest to Ramaprasad's (1983) premise; feedback is not universally understood.

Through the Lens of the Feedback Model

Hattie (2009) presented a model of feedback to illustrate the feedback process used in educational settings with a purpose to decrease discrepancies between a desired outcome and current performance. Discrepancies may be influenced through actions on the part of students and/or teachers. Students could increase efforts, apply effective strategies, or they may give up and adopt behaviors that may lower their grades. Teachers might have specific goals and use feedback to help students reach those goals. To be effective, feedback strategies feed up – to answer, "Where am I going?" feed back – to answer, "How am I going?" or feed forward – to answer, "Where to next?" (Hattie, 2009, p. 176). The power of feedback lies with feedback that incorporates these three questions (Hattie, 2009; Hattie & Timberley, 2007). In addition, the feedback response operates at 4 levels: Task Level, Process Level, Self-Regulation Level, and Self Level. Hattie (2009) cautioned that feedback at the self level should be avoided, because feedback to the self does not promote achievement in learning. Some might perceive that feedback for teaching and learning should progress from the task, to the process, then, to self-regulation. Evans (2013) pointed out that these levels for feedback cannot be considered as separate dimensions of feedback, because they are actually integrated. However, the theoretical model provides a framework that allows us to investigate and understand the feedback process in education.

The learning environment may contribute to the effectiveness of feedback. Hattie (2009) wrote that teaching environments that encourage self-assessment and learning from mistakes

tend to integrate feedback at the task, process, and self-regulation levels and result in enhanced learning. However, feedback does not replace effective teaching. Effective teachers seek information from students about what students know, what students understand and misunderstand, and where and how students are making errors. Insight into what information students need to get to the next level of learning provides the teacher with the opportunity to provide meaningful and powerful feedback. This feedback may look like an offering of a different viewpoint to consider, confirmation that a student is correct or not, a suggestion of alternative strategies or additional information sources, or another cognitive-directed feedback. At the same time, the teacher receives feedback about personal teaching strategies and can reflect to consider more effective practices.

Waitling, Driessen, van der Vleuten, and Lingard (2012) discussed effective teaching environments as learning cultures. They indicated three influences learning cultures have on feedback, including: clarifies expectations for the teacher and the relationships between teacher and student, establishes norms and expectations about feedback, and directs attention to certain dimensions of performance. Learning cultures create opportunities for learning environments where good feedback can be given and responses to feedback can occur.

Feedback has been viewed from three perspectives: the student, the teacher, and the teaching-learning process (Ovando, 1994, p. 20). The literature has explored student and faculty perspectives, principles and methods of providing feedback, the composition and style of feedback, as well as how feedback is received. Hattie (2009) suggested that it is helpful to understand the feedback process by considering a continuum between instruction and feedback (p. 174). For example, feedback may provide further instruction or suggestions and not simply

correction. This review will touch on these areas, using Hattie's model as a framework for discussion.

Student Perspectives

Referring to the feedback model (Hattie, 2009), discrepancies between what is known or understood and what the desired goal of knowing or performing can be affected by teacher perspectives or by student perspectives. As students progress through the education system, multiple factors enculturate students to strive to achieve a high grade. Elbow (1997) described a process in which students ask about what the teacher wants and then they try to complete their writing assignments accordingly. In this process, students by-pass the opportunity to learn from their writing by focusing on what they think the teacher wants to read. This process may be referred to as working for the grade instead of working for learning. Students who apply this strategy and are not successful at achieving the desired grade (regardless of the learning), may give up and put less effort into their work. The psychological reaction to feedback as described by Setzler (2009), is reflected in students' defensive behaviors, as they attempt to defend their writing, arguing for a higher grade. It is worthwhile to consider the student perspective about feedback and the kind of feedback they prefer, and to reflect on potential opportunities to promote learning.

Giles, Gilbert, and McNeil (2014) implied that some students complain that they cannot understand the feedback that instructors give them. Researchers have explored what type of feedback students want (i.e., Blair, Curtis, Goodwin, & Shields, 2013; Turnitin, 2015). They indicated that different perceptions between students and instructor regarding the purpose and value of feedback may be an underlying issue feeding student dissatisfaction with feedback. Blair et al. (2013) suggested that changes in class size and online course delivery have altered the

instructor's capacity to provide feedback in this format. These illustrate that there is a disconnect between giving and receiving feedback.

Perhaps one way students try to bridge the gap in understanding feedback given by their instructors is to prefer one-on-one time with the instructor to explain feedback. Gibbins (2010) described students' preference for face-to-face, tutorial feedback after receiving written feedback on assignments via a standardized form that allowed for individual comments. From the teacher's perspective, tutorial feedback was time-consuming. This involved one-on-one sessions for an hour with each student for each (of 3) writing assignment. The findings correspond to a point made by Gardner and Abraham (1978) to use criteria to simplify comments on student papers so as to have a foundation with which to discuss with the student about his or her work. Gibbins (2010) did not measure achievement in writing or content, except in context to the student perceptions of what was helpful for improvement.

Land and Evans (1987) discussed findings from an informal survey sent to students about the types of feedback written by their teachers of which they might find most helpful. The authors constructed a list of categories of feedback types, based on initially asking a group of students what kinds of feedback they have received for their papers. Preferences between the 12 college and 12 high school students were nearly the same. The perception of the most helpful strategy for feedback is to talk to the students about their paper. The other theme that was prominent in the students' reports was to explain the marks on the paper. Interestingly, this was the same for comments made to address what was done well and for those not done well. From the student perspective, a positive comment without an explanation was not helpful or was a little helpful. These three snapshots from different decades support a common student perspective that it would be helpful to discuss the instructor's feedback comments.

Chanok (2000) identified discrepancies in tutor comments and student understanding, choosing a common marking phrase: “Too much description, not enough analysis” (p. 96). Chanok described understanding by students and tutors, variations of significance by discipline, and suggested that teachers be clear about the process of analysis within their discipline. Hodges (2002) mentioned comments that could misfire, in a study about using the margins of a student’s paper to write comments. Hodges compared the comments, teacher’s intent, and student’s understandings, finding discrepancies in what was written and what the teacher intended, as well as discrepancies in student’s understanding of the teacher’s intent in the feedback. Hodges recommended that teachers respond in such a way that students understand, respond to, and learn from the comments. An interesting point was made about teachers offering to respond to any student questions. Hodges pointed out that students may not know what questions they have and may think they cannot approach the teacher without a question. Rather, the recommendation is for the teacher to anticipate questions students might ask and construct comments in the students’ papers accordingly.

Turnitin (2014) is a product that can assist instructors in evaluating potential plagiarism in student writing. The company attempted to extend the usefulness of the product by addressing methods in which instructors can provide feedback to students about their writing. The company conducted a study to determine instructor and student perceptions about what types of feedback are effective. Their overall finding was that there are differences between what the instructor and students perceive as effective feedback. Through surveys, they looked at eight types of feedback, general comments, overall (summative) comments, met criteria via rubrics, suggestions for improvement, pointing out mistakes, notes in margins, pointing out what did correctly, praise or discouragement, and use of examples. Their recommendation was that their audio-feedback may

save time in instructor grading. They failed to consider equal access where audio files needed to have a transcription, which may actually add time to the instructor grading. They made a more reasonable suggestion that the instructor needs to explain to the student the type of feedback being used and the need to consider feedback types that students find most helpful.

Faculty Perspectives

Another factor which influences feedback effectiveness relates to the instructor, or faculty member. There are several concepts to consider from the faculty lens, such as understanding of feedback and teaching and learning, training and education regarding feedback, research about feedback, emotions and experiences related to giving and receiving feedback, and others. The educational leader may encounter conflicting ideas about feedback among faculty. In such situations, there may be inconsistencies in the evaluation process within a nursing program. One task of the educational leader might be to promote a shared understanding about giving feedback to their nursing students. Bonnel and Boehm (2011) described limited attention paid to orient new nursing faculty who may or may not demonstrate competency in giving feedback in online environment. Therefore, it may be useful to know how nurse educators feel about feedback and their practices in giving feedback. Such information could be leveraged for professional development activities that promote best practices in providing feedback. Holding onto one, or a mixture of philosophical perspectives may contribute to the variances among faculty related to understanding feedback.

Philosophical Perspectives in Teaching and Learning

Teaching strategies and the assessment and evaluation of students are influenced by personal philosophical perspectives in teaching and learning. Bates (2014) indicated that beliefs and assumptions about how knowledge is formed, how to identify and validate truth, and how to

help people acquire and apply that knowledge influence teaching and learning practices. Individual beliefs and assumptions about knowledge will drive teaching strategies, which may differ, even when there are shared beliefs of what needs to be known, for example, within a discipline. There are several educational theories about teaching and learning. Instructors in higher education, who have not been exposed to the various teaching and learning theories, may discover effective teaching strategies through trial and error. They might not realize other theoretical approaches that could be applied to best meet the students' needs in various contexts (i.e., Bates, 2014; Coffey, Hammer, Levin, & Grant, 2011; Ecclestone, 2010).

Early educational research looked at teaching and learning from either a psychology or science perspective (Baldwin, 1911). From the psychology perspective, education takes place through behavioral direction or development. The focus is on directing, controlling, and developing desired behaviors (Baldwin, 1911). This has also been referred to as behavioral reinforcement (Hattie & Timperley, 2007; Ramaprasad, 1983). In one sense, it is teaching through correction. Within a program or an individual instructor tending towards a psychology perspective for teaching and learning, there may be a tendency to base achievement measures on the correctness in the assignment. Thus, the focus of the feedback will be on the accuracy, or on what needs to be corrected within the assignment.

A popular venue of assessment within psychological perspectives is objective testing (McMillan, 2007). Luchins and Luchins (1946) argued that objective testing does not measure what students know or how they think. This shows that opposing views have been long-standing. Van der Kleig, Feskens, and Eggen (2005) asserted that feedback with corrections only were less effective than feedback that elaborated or explained higher learning outcomes. This alternative perspective comes from science.

From the science perspective, education is based on science, a process of learning that is separate from behavioral training. Proponents of the science perspective look at teaching and learning as a process of discovery, where meaning or understanding is constructed by the learner from new information. Dewey (1916) used a simple math problem to illustrate that learning is not merely repeating behaviors. A child may be able to perform a math equation to add 2 plus 2 correctly through repetition. However, it is a useless exercise, if the child does not recognize the meaning behind the equation (p. 16). An instructor grading from the science perspective may be focused on the thinking process. This focus on thinking may influence teachers to collect cues about students' thinking so as to give feedback directed at the learning process rather than what a student does or does not know. In contrast to feedback directed at correctness, this perspective may direct feedback comments to processes such as comprehension, analysis, and synthesis (Bates, 2014).

These philosophical perspectives can be tracked throughout studies that looked at teaching and learning and the role of providing feedback in educational settings. One might question if there is one philosophical perspective that is better, or more correct, than another. A clear separation between various proponents of these perspectives is not evident in the current literature. Bates (2014) acknowledged that there are many more theories of teaching and learning than the two types Baldwin identified in early literature. Bates identified four of the common theories, objectivism and behaviorism, cognitivism, constructivism, and connectivism. These theories build upon the psychology and science perspectives. It is more likely that current practices in giving feedback is a mixture of these differing perspectives as well as further-developed theoretical perspectives. Feedback from a perspective that emphasizes experiential

learning and reflections allows for individuals to construct knowledge built on previous knowledge and develop personal meaning (Bates, 2014).

Often, studies have employed a mixture of philosophical perspectives. Others propose that the science of teaching might incorporate any or all of the philosophical perspectives, depending on the purpose of the instruction (i.e., Bates, 2014). Perhaps the art of teaching draws from multiple teaching and learning theories and applies principles according to situational need. Is there a trend towards a particular learning theory among nurse educators teaching in RN-BSN programs? Recognizing that a person's philosophy of learning will affect how they use and interpret feedback from their teaching and assessment strategies, educational leaders would benefit from understanding the basis of these philosophical perspectives of teaching and learning as a foundation with which to guide their feedback to teachers' performance.

Facilitating Reflective Learning

Foundational nursing education incorporates experiential learning activities and engages in reflective practice. Nursing, as a reflective practice (American Nurses Association [ANA], 2015), would benefit as a profession if the constituents develop skills in self-reflection. Nurse educators may need to develop skills that facilitate student self-reflection. Mariani, Cantrell, and Meakim (2014) discussed systematic debriefing as an effective teaching-learning strategy in clinical and simulation experiences. They discovered faculty perspectives that indicated facilitating reflective learning is a learned skill, is time-consuming, and effectively helps nursing students to incorporate new knowledge into understanding for professional practice. They identified the need for faculty education and ongoing feedback to faculty so that faculty could develop the skills that facilitate reflective learning. Lack of teacher-training among nurse educators is an important point that comes up consistently in the literature.

Another finding by faculty report to Mariani et al. (2014), was a transformation in approaching the non-clinical and non-simulation sessions so as to facilitate reflective learning in those areas as well. By exploring the faculty perceptions, information about teaching practices were obtained and plans for faculty development could be considered. It is worthwhile to investigate faculty perceptions about feedback related to facilitating reflective learning so as to discover if there are trends among nursing faculty beyond individual schools of nursing. Understanding the beliefs and perceived practice of nurse educators related to practices in providing feedback and grading will help in planning activities for professional development and quality improvement.

A Disconnect in Giving and Receiving Feedback

Waiting at al. (2013) described that the challenge in giving feedback lies in the complexity of how feedback is received. Draco-Severson and Bloom-Distefano (2016) offered a developmental perspective to explain the disconnect that happens between giving and receiving feedback. Their work focused on the feedback given to faculty members about their teaching and the faculty members' responses to that feedback. The same principles about giving and receiving feedback is applied in this study, to nurse educators who provide feedback to RN-BSN students. Draco-Severson and Bloom-Distefano (2016) took a constructivist view of learning and added that there are four variances for adult ways of knowing. These ways of knowing influence ways an individual receives and gives feedback. The four ways of knowing include instrumental, socializing, self-authoring, and self-transforming. Following this theory, we assume that individuals may prefer characteristics from one of the four categories, with the recognition that individuals may actually demonstrate characteristics from more than one category.

The main premise, according to Draco-Severson and Bloom-Distefano (2016), is that feedback is ineffective because the faculty member cannot hear it. For example, if a person has instrumental way of knowing, the preferred type of feedback would be corrective in nature and what was right or wrong. Feedback suggesting change is not received unless there are concrete, corrective actions recommended. An individual whose preference is toward a socializing way of knowing, focuses on pleasing the other person. It is the relationship between them which is important. An individual with the preference of the socializing way of knowing may be offended if feedback is only given in a corrective manner, without consideration of the relational aspect between persons. On the other hand, when the feedback is individualized to the person the way that they think and understand meaning, the feedback can cause reflection and change. This attention to individualize feedback facilitates growth in the capacity to give and receive feedback.

This approach in giving feedback to adults who are teachers may also be applied to adults who are learners. Some of the disconnect that might come between students and nurse educators in RN-BSN programs might stem from the individual faculty's orientation to giving and receiving feedback and not recognizing or understanding the individual student perspective of giving and receiving feedback. This framework may explain why students do not understand or respond to feedback given to them by professors. When preparing faculty development seminars, it is important to determine where the faculty members are coming from. Asking them about their preference or perspectives on feedback would help uncover if a more detailed faculty development could focus on this framework of ways of knowing. If feedback can be individualized to the person, the person would better understand it and would be able to respond

accordingly. A survey to a large group of nurse educators may enable us to understand if there are any trends in the preference of giving and receiving feedback among nurse educators.

Teacher Attitudes toward Grading

Several researchers found that the teacher's attitude influenced feedback provided to students (Greasley & Cassidy, 2010; Mann, 1996; Swanick, 2008, 2009). Anderson, Nightingale, Boud, and Magin (1993) recommended teachers consider whose interests were being served in assessing assignments and focus accordingly. Schuman (2013) expressed her opinions that grading student essays was a waste of time and that most students do not appreciate the feedback given. Sorcinelli and Elbow (1997) are proponents for writing across the curriculum because they view that writing in the disciplines improves communication skills as well as the process of teaching and learning. They propose writing in all college courses. These illustrate opposing views about writing and reveal the potential range in bias for providing feedback in student writing.

Self-reflection may be an activity that educators could use to explore their personal attitudes towards feedback. Mann (1996) discussed the need for educators to examine their own attitudes toward students' writing problems. She related her experiences with students and other members of the faculty. A person's background and emotional experiences may influence how he or she responds to student writing. Actions related to grading could perpetuate a cycle of discouragement or could elevate the experiences with encouragement. For example, different responses may range from avoiding the giving of corrective feedback; giving harsh, corrective feedback; or giving feedback that encourages improvement. Mann (1996) asserted that self-examination, working towards respecting students' work, and designing experiential learning environments will contribute to efforts to improve student writing. Hattie (2012) suggested that

teachers display attitudes that promote trust through welcoming error and misunderstandings as learning opportunities, without promoting fear of negative reactions. Student learning can be enhanced through the feedback directed at what is not known (task feedback), errors in processing information (process feedback), or direction towards future learning (self-regulation feedback).

Greasley and Cassidy (2010) surveyed 32 faculty members to ask them to list things that frustrated and things that impressed them while grading students' written work. After coding responses, the authors re-sent a request for faculty members to rank the items in order of importance, where items of frustration would have a more negative impact on the student grade and items of impression would have a more positive impact on the student grade. The authors acknowledged that the faculty members varied in their responses and rankings, indicating these personal preference items may impact grading, despite attempts to provide consistency in grading, such as the use of rubrics for marking.

A perspective of the drudgery of grading college papers can be found in Schuman's (2013) declaration that we should stop assigning essays in our program-required courses. She asserted that disciplinary courses should revert to written and oral exams instead. Schuman indicated that students hate writing papers and they will buy them, steal them, or spend little time to compose them, just to have something to submit. Plagiarism is so common that we would not have any students if teachers flunked every student who plagiarized. According to Schuman (2013), as much as students hate writing essays, teachers hate grading them. Writing feedback is a waste of time because students ignore it or come back to the instructor to debate the grade or may blame the teacher for insulting them as a person and claims the teacher hates them. She wrote about attempts to improve student writing such as writing workshops and using drafts-

rewrites. From her perspective, the only students who benefited were those who were already good writers. Using exams will take the subjectivity out of grading writing and provide the objective measurements of student learning. This perspective has long been contested, citing biases in test-writing (i.e., McDonald, 2007) and that objective tests do not measure learning (i.e., Luchens & Luchens, 1946). Ignoring the needed skills for written communication in nursing is not an option. However, it would be worthwhile to understand the prevalence of this line of thinking among nursing faculty.

Stewart and White (1976) identified Page (1958) as an influence in teacher education to prepare future teachers in applying the strategy of commenting on student's work. They sought to duplicate Page's study and compared 12 other studies that replicated Page over the 20 years. Their comparisons found inconsistency in student performance in elementary and middle schools, with a higher improvement in student performance with comments at the college level. Stewart and White questioned the worthiness of spending time to comment on students' objective testing when the effect size of improvement is 1 of 10 students, weighed against the time it takes for teachers to compose individualized comments.

O'Flynn-Magee and Clauson (2013) identified a foundational belief of ethical practice among nurse educators when grading papers. The framework of standards, team use of grading systems and tools, and nurse educators' commitment to consistency and objectivity were evident in the study results. Nurse educators expressed ethical considerations such as equity, confidentiality, anonymity, consistency, and objectivity. They valued having clear criteria and expectations and communicating these to students and the team prior to grading. Shared approaches, such as being clear headed and focused, not feeling grumpy, creating blocks of time, ensuring a positive environment without distractions, stopping if frustrated, and others were

identified. Therefore, it was worthwhile to explore if these ideas of ethical practice trend over a larger research sample.

The environment in which the person is constructing the feedback may be a factor such as elements in the environment that cause distraction. Anderson et al. (1993) cited decreased resources with an increase in students in the classroom as factors. Carless et al. (2010) reported that there are no incentives to provide meaningful feedback without repercussions from negative student evaluations. They also cited a lack of resources, such as time. Bose and Rengel (2009) reported that giving feedback is time-consuming, and that faculty have differing opinions about timeliness, usefulness, and explanations. There is also a lack of support from administrators as teachers in this study reported that they do not receive feedback about their teaching. Bailey and Gardner (2010) found teachers practice without discussing best practices. Aguis and Wilkinson (2013) indicated that teachers reported influencing factors of institutional pressure and a need to find a balance between positive and negative feedback.

These samples from the literature demonstrate various aspects of faculty-attitude towards grading as an influencing factor in the feedback process. Looking at Hattie's (2009) feedback model, the teacher's attitude may influence teacher actions of reducing discrepancies between actual and desired performance. There may be links between faculty-attitudes towards giving feedback and faculty-understanding of feedback.

Teacher Understanding of Feedback

The teacher's attitude about feedback may influence his or her participation in the feedback process. Yet, a teacher's attitude may be influenced by a teacher's knowledge and understanding of research about feedback. Furthermore, a lack of understanding regarding feedback may influence the effectiveness of the teaching and learning process. To compound the

issue, often nurse educators are chosen to teach because of clinical expertise and not because they have done well in training to teach (McDonald, 2007). There are multiple factors that may influence how feedback is given and recieved (Hodges, 2002). Thus, another influencing factor to consider is what instructors have been taught and understand about feedback.

There are traditional assumptions related to assessment and feedback within clinical practice settings. This is associated with the concept that the expert practitioner is the best source to learn from. Swanwick (2008) discussed the need to debunk the myth that *anyone can teach*, referring to attitudes related to clinical instruction of medicine. He indicated that historical methods, such as sage-on-the-stage, learning by lurking, and teaching by humiliation are all problematic. These methods assume that knowledge and skills are transmitted from teacher to student, rather than acquired by the learner. Swanwick (2009) charged in an editorial that all doctors who were responsible for clinical training of medical students were also responsible to take some form of training to obtain the practice, skills, and attitudes of a competent teacher. Swanwick (2008) indicated that the risk to patient safety is high if student performance is left to chance. He supported arguments via the literature that clinical instructors need to have professional development training about teaching and learning in the clinical settings, including providing feedback about clinical performance.

Related to attitudes in clinical nursing instruction, Oermann, Saewert, Charasika, and Yarbrough (2009) discovered that only half of the clinical nursing instructors surveyed considered the importance of consulting research about assessment strategies for clinical education. The authors felt this was problematic for a profession striving to promote evidence-based practice. Questions remain as to if the clinical nursing instructors value evidence-based

practice or not; or, if the instructors are not aware that there is research about assessment strategies for clinical education.

Mulcahy (1993) offered that faculty are not aware of the research behind writing composition. He summarized ten points from existing research about writing and feedback, offering several suggestions that applied those points. He proposed that the focus in providing feedback needs to build student confidence in writing through guidance instead of judgments of what they have done wrong. He made four recommendations: convince students that writing is difficult, but necessary, and that students can master writing skills; teachers need to use their time wisely and examine assignments and content in the courses and revise to promote learning; assignments have to be more experiential so that students can relate to them; and restore hope in students that they can write by adopting a perspective that the work is unfinished rather than wrong, which will help students overcome negative attitudes toward writing in the discipline. Lee (2013) suggested that a lack of training and individual beliefs contributed to the overuse of corrective feedback instead of selective feedback. Feedback could inform about the effectiveness of teaching practice.

Troxler, Jacobson, and Oermann (2011) identified that hindrances in writing instruction for nursing students include inconsistencies in feedback, grading, and expectations among the faculty. Skill levels of evaluating professional writing and APA style also factor into the quality of feedback teachers provide to their students. Potential areas of faculty concerns about writing across the curriculum included frustration with poor quality of student writing and beliefs that grading papers would be more time-consuming. They wrote that “feedback may be integral to writing instruction and is generally well received by students” (Troxler et al., 2011, p. 286).

Their systematic review identified a lack of outcome measurements to support the effectiveness of writing programs.

Hodges (2002) compared comments made by teachers in the margins of student papers to the teacher's intended message for the comments. He suggested the teacher was not effective at conveying the message in a way in which students could understand. This lack of effectiveness could be related a lack of awareness of how feedback is received, as Draco-Severson and Bloom-Distefano (2016) described, or, perhaps to simply not understanding feedback. Frey (2009) identified that faculty might not be aware of how to use feedback to improve student learning. Hattie and Timperley (2007) pointed out there is a risk that teachers do not see feedback, the information about a student's performance, as information they can use to assess their own effectiveness in teaching. Teachers might not use feedback-to-student information to consider what they, as the teacher, could do next. For example, a gap in students' performance should prompt the teachers to reflect on their teaching to identify gaps in presentation of content or in assessing outcomes.

It can be challenging for the educational leader to identify each instructor's belief and practices related to providing feedback. Understanding differing perspectives may help to identify areas of potential conflicts. There are other considerations that influence faculty with their grading of student assignments, such as curriculum development, expected course and program outcomes, types of assessment instruments used, and teaching strategies. These influences may lead to feedback error.

Other Influences on Faculty Feedback

A contributor to feedback error lies in the subjective perspectives of the teacher. Subjective perspectives influence the grading process and reach beyond the beliefs, practices,

attitudes, and understanding of the teacher. Other authors have identified mechanical factors that may influence the process of giving feedback (e.g., Bangert, 2005; Bonnel & Boehm, 2011; Elbow, 1997; Greasley & Cassidy, 2010; O'Flynn-Magee & Clauson, 2013; Wiggins & Tighe, 1998; among others). For example, a person who is tired may be less effective in providing feedback. Stressful events occurring outside the grading process may also influence the effectiveness of providing feedback. There may be systems or designs within the educational setting that influence the effectiveness of feedback.

Curriculum Design

One influencing factor is curriculum design. Faculty feedback may be influenced by the design of curriculum and the measures used to assess outcomes. A common practice in curriculum development is to construct the curriculum within a framework of expected outcomes, such as with Backward Design (Wiggins & McTighe, 1998). The process identifies the expected outcomes, considers the evidence that would demonstrate those outcomes, and then identifies the teaching strategies that would prepare students to perform and to demonstrate achievement of those outcomes. This design process attempts to maximize opportunities for student learning and assessing that learning.

Course design

Feedback error may be seen in any step of the design process. For example, invalid expected outcomes, inaccurate choices of evidence, or ineffective strategies to prepare students provide opportunities for feedback error. Bangert (2005) also identified from his case study that technology compatibility issues were a hindrance to providing feedback in online courses. Instructions have to be clear. Bonnel and Boehm (2011) recommended that the best available tools are needed for online courses so that faculty may easily follow progress of students and so

that students are able to access feedback. Elbow (1997) recommended to have clear criteria for writing assignments. Greasley and Cassidy (2010) recommended that there may be a need to reconsider the amount of assignments in a course and consider the time needed for students to be able to engage in learning. They acknowledged that there may be unique needs in different disciplines and asserted that individual biases and preferences in grading needed further exploration. They also suggested that teachers ask their students what issues they face with writing.

Misunderstanding the objectives of an assignment may lead the teacher to give feedback that is based on faulty reasoning (Ramaprasad, 1983). Online programs with several sections of a course, may have multiple instructors teaching the same course. Even well-designed, online courses, with the same content for learning and assessment, may be more susceptible to feedback error from misunderstandings. Faculty who have not developed the content and assessment strategies themselves may have a higher possibility of misunderstanding objectives that were designed by others. Ramaprasad (1983) recommended that evaluators meet the criteria of consensus. A plan to check interrater reliability might ensure that students in all sections have the same opportunity to maximize their learning. This plan may present challenges for an online program and/or a program that employs a majority of distant, adjunct faculty to teach their courses. Educational leaders would do well to determine how well their teachers are aware of course and program outcomes.

Measuring Learning vs Achievement

The measuring of learning versus measuring achievement is another contested perspective in designing assessment activities and the type of feedback that would be considered. Hattie and Timperley (2007) cautioned that the emphasis on assessment is often linked to student

proficiency in the way of scores or a grade, rather than on student learning. Design of assessments for outcome measures should include considerations of purpose for the assessment, such as diagnostic, student learning, or student achievement (Ovando, 1994). McMillan (2007) identified that summative assessments are often thought of as measures of student learning, when they actually measure achievement. McMillan went on to explain that tests may provide a snapshot of learning or achievement but provide little information to improve teaching or learning. For the instructor to be effective in providing feedback and for faculty to conduct accurate course or program evaluation, the purpose of the assessments and outcomes must be clear.

Measuring Value

Measuring value in learning is another issue that has come up in higher education. Pagano, Bernhardt, Reynolds, Williams, and McCurrie (2008) discussed trends in grading writing assignments as a pendulum that swings between reliability and validity. In the 1970s, it was typical to have writing samples directly measured under controlled conditions. Students were given a writing prompt and a time limit to respond to the prompt. These essays were measured with a rubric of criteria and often samples of benchmark papers were used for comparison. Portfolios were used for programmatic evaluation of learning.

In 2007, a new interest developed where program effectiveness is measured by value, where teaching and learning activities are linked to demonstrable outcomes. Stakeholders pushing the accountability aspect include state and federal legislatures in response to decreasing graduation rates, increased demand, cost, time-to-degree, economic return, public concern for higher education, and accreditation standards (Pagano et al., 2008, p. 286). Writing assignments were measured for their contributions to student learning within the discipline content, as well as

learning outcomes such as critical thinking, research skills, and diversity awareness. Challenges lie in establishing the effectiveness of measurement and in maintaining reliability and validity relative to national norms, or at least that can be contextualized outside of the local university community. The authors conducted a pilot study incorporating the writing programs of six institutions describing the process, how assessment findings were used, and implications for institutions assessing writing.

Pagano et al. (2008) described limitations by two choices for assessing student writing: standardized testing and locally developed instruments. Standardized tests are limited due to their timed, artificial environments and the effect of student motivation, and often, do not meet programmatic goals. Locally developed instruments may match programmatic goals and reflect students' true achievement levels, but national or inter-institutional comparisons are lost. The authors suggested that a benchmark of writing outcomes that can be compared across institutions be developed through inter-institutional collaboration to establish student achievement criteria for validity, and to have a common approach for reliability. They defined student achievement criteria through a rubric that measured task responsiveness, engagement with the texts, development, organization, and control of language. Even with a common assessment tool, Pagano et al. (2008) described the importance of establishing a norming rating process. Their findings indicated there were still varied program parameters that affected the ability to validate student achievement across universities. Programs may be influenced by the institutional context, instructor experience and employment status, curriculum, and individual students.

Writing Across the Curriculum

In the early 1970's, a movement in education was referred to as *Writing Across the Curriculum* (WAC). A goal of this movement was to improve language skills within writing

related to the disciplines. Zawacki and Rogers (2012) made a distinguishing point that WAC does not separate the concepts of writing to learn and learning to write. Based on the assumptions that students learn writing through writing and that objective tests do not provide opportunities to develop writing, Gardner and Abraham (1978) sought to identify a procedure for evaluating writing in a sociology class. The challenge was to have a procedure that would provide objective feedback to student writing and would not be time-consuming for the grader. They developed a criteria sheet with a Likert scale about content and writing style. Students would be informed of the criteria before the writing. The assumption was that graders using the criteria sheet did not need to make as many comments in the margins. They tested grader calibration to assure the assessments using the criteria were consistent. Among their findings were that the criteria sheet did not eliminate the need to make comments, though there were less. The benefits of using the criteria sheet included informing students ahead of time of what they would be graded and that it provided a framework for discussing the student's work with the student.

Peer review and feedback without grading may be an alternative way of applying the concept of writing to learn. Young (1997) wrote about his experience in using writing assignments as learning. Instead of grading individual writing assignments in his literature course, each writing assignment was used as a learning opportunity with peer review. Students read another student's writing and had to ask a question about what was written. The student had to respond back. He approached the writing-peer review assignments by providing written feedback, but no grades. He kept personal notes about each student and utilized in-class discussions about selected portions of writing and critique. All the writing in the course was kept

in a portfolio. Young provided feedback on progress through the portfolio, with a final assessment how students met the course outcomes.

Elbow (1997) also wrote under the philosophy of writing to learn and suggested ways to simplify grading while giving students more substantive feedback about their writing. Instead of using a grading system to delineate 11 levels, (A, A-, B+. B. and so on), grading could be simplified with a 2-level or 3-level grading, with clear criteria. Levels would be defined by words, such as satisfactory or unsatisfactory, and not by letter. Elbow posited that referring to levels by words provides more meaning to student and grader than a letter grade. The 11-level grading system has a larger margin for error from grader subjectivity. The letter grade system allows opportunities for students to focus on the letter grade, which may incite students to protest and negotiate for a higher letter grade. On the other hand, low stake, 2-level assignments may be a higher motivator for students to engage in learning. Elbow suggested to consider developing low-stakes assignments with 2-level criteria, then scaffold to higher-stakes and 3-level criteria assignments. With clear criteria, items can be met or unmet. This system will provide information for the student on what can be improved, limiting the need for the instructor to make detailed comments, and easing the burden of grading. This system of grading could also be applied across the disciplines. Elbow suggested the high stakes grading could occur through grading portfolios, especially in courses teaching writing, measuring student progress to meeting the course outcomes. A high stakes assignment is also a viable option, if the criteria distinction is communicated to students.

The use of grading criteria either as a list or rubric may provide guidelines and standards for writing and assessing. Elbow (1997) and Gardner and Abraham (1978) suggested these tools will decrease the number of comments needed to provide effective feedback to students. As they

discovered, these tools may decrease the number or detail of comments, but they do not eliminate the need for feedback. There was also mention of face-to-face discussions with the students about the feedback.

A common theme represented by these authors is that there is a gap between feedback teachers write and students' understanding of feedback. Recommendations made to close this gap include explaining the comments being made and talking to students about the feedback. As identified by Gibbins (2010), teachers perceive this level of involvement to be time-consuming. Other recommendations include being clear about the evaluation strategies, making comments students will understand, and engage the student in the learning process (Chanok, 2000; Hodges, 2002; Turnitin, 2014). In Hattie's (2007) model of feedback, the teacher's and student's perspectives are the filters through which feedback is given, received, and acted upon. To understand the feedback process more deeply, there is a need to look at the characteristics of feedback.

Characteristics and Strategies

Much has been written about the characteristics of effective feedback as well as methods to provide that feedback. One premise is that effective feedback reduces gaps between understanding and performance and a learning intention or goal, making a connection between feedback and learning. Tuvesson and Borglin (2014) wrote of feedback bridging theory to practice. Another premise is that student performance should also provide the instructor feedback on teaching performance, identifying effectiveness or gaps in instruction.

Feedback, Learning, and Teaching Connections

Ovando (1994) identified links between feedback and learning, and feedback and teaching performance, citing a difference between feedback that emphasizes criticism and

punishment with feedback that looks at student progress and informs adjustment in instruction. Feedback for learning and feedback for teaching are distinguished in her description of a systematic feedback process. She suggested a planning paradigm for the process of decision-making in teaching, identifying evaluation as a connecting factor in the process.

Hattie and Timperley (2007) looked to a conceptual analysis of feedback and the significance of feedback on teaching and learning. They distinguished between feedback as behavioral reinforcers and feedback as part of the learning process. Both instruction and feedback are needed for learning to occur. Feedback is needed to facilitate understanding. Strategies that inform specifically to the gap between what was understood and intended to be understood may be met through applying affective or cognitive processes. To be effective, feedback has to have a learning context and build on what the student already knows. The answers should not be a mystery. Hattie (2011) suggested that sometimes, feedback should give students the answer so that they can go back and strategize on the process to get the answer, rather than focusing on what the correct answer is. Hattie (2007) is also a proponent of using feedback to inform teaching practices.

Ritchart, Church, and Morrison (2013) would agree with Hattie and Timperley (2007) about building on previous knowledge and described the process of understanding through thinking. Ritchart et al. (2013) contrasted teachers' questioning strategies that assess students' knowledge and memory with questioning strategies that promote thinking toward understanding through guiding and directing student ideas. Questions might encourage students to reflect on what they know, explain how they know what they know, and to consider other related perspectives. Feedback could be specific to the thinking in the learning process, thus, "making thinking visible." Ritchart et al. (2013) indicated that once students are aware of and engaged in

the process of learning, they will be able to make more contextual connections, expand their thinking, and deepen the learning experience.

Feedback Framework

The literature is filled with recommendations for the style and contents of feedback. Using the framework of Hattie's (2007) feedback model, the remaining review will look at author's recommendations of feedback that correspond to Hattie's three feedback questions and the four levels in which to deliver feedback. The ideal learning environment is when both teachers and students seek ways to answer one of three questions that feed up, "Where am I?"; to address the goals and expectations; feed back, "Where am I going?" to address the performance; and feed forward, "Where to next?" to address applications to further learning (Hattie, 2007, pp. 173-174). Each of these categories of questions can be delivered according to four levels: Task Level, Process Level, Self-regulation Level, and Self Level. Strategies may depend on the level from which feedback is provided. The art of giving feedback lies in providing the feedback to students at or above the level they achieved (Hattie, 2007).

Several researchers have looked at feedback across these different levels (Bose & Renge, 2009; Dreifuest, 2009, 2015; Eggen, 2012; Evans, 2013; and Van der Kleig, Feskens). Bose and Renge (2009) suggested that formative assessments can be used to strengthen self-regulation learning. They asserted that feedback should scaffold, first given at task or process level, which address cognitive process, restructure understandings, provide confirmation, identify gaps of information, and give alternative direction strategies. Van der Kleig et al. (2005) found that feedback that offered explanations and were given at the task, process, and regulation levels fostered stronger learning outcomes. Dreifuest (2009; 2015) identified feedback in action, on action, and beyond action as strategies to increase clinical reasoning skills in pre-licensure

nursing students, bridging theory to practice. Understanding the application of categories of questions applied according to four levels add insights into the complexity of feedback.

Task Level Feedback

Task level feedback addresses performance from understanding expectations, steps needed to reach goals, and application of previous strategies for understanding. At the task level, feed up comments might address understanding of the expectations. Feed back comments might suggest consideration of the steps needed to reach the goal. Feed forward comments might suggest applications of previous strategies the student has used to understand goals or expectations (Hattie, 2007). Waitling et al. (2014) described that this phase provides opportunity to establish norming expectations related to feedback and encompasses the dimensions of performance connected corrective feedback to task skills. A common feature of this level is corrective feedback. Corrective feedback takes many forms.

One issue that frequently comes up over the years is providing corrective comments related to mechanics of writing. Students may prefer this style of feedback when their focus is on writing what the teacher wants versus writing to learn (Elbow, 1997). Green (1968) discussed marking student composition papers, acknowledging that teachers of composition have systems to mark mechanical errors on papers effectively, but are not as effective commenting on content, theme development, and organization of papers. He recommended that the terminal comment should clearly indicate the weakness in the paper and ways to improve. Van der Kleig et al. (2005) asserted that feedback with corrections only were less effective than feedback that elaborated or explained higher learning outcomes. Wolsey (2008) found that feedback that was overly specific led students to make perfunctory corrections without improving their writing.

One strategy in providing corrective feedback is referred to as the *feedback sandwich*. This strategy has the feedback-deliverer mention something positive, followed by the critique for improvement, and ending with another positive comment. Glover (2000) wrote that positive feedback using the feedback technique enhances student performance and students felt confident and competent. Docheff (1990) explained that the feedback sandwich incorporates three purposes of feedback:

1. Reinforcing the learner to encourage a repeat of a positive behavior
2. Informing the learner with an element of correction to point out the actual performance and the expected performance
3. Motivating the learner through positive feedback to increase the motivation.

In the literature, there are multiple opinionated sources that recommend using the feedback sandwich strategy (i.e., Docheff, 1990; Dohrenwend, 2002; Glover, 2000; Lauber, 2011). However, there are other opinionated sources that just as strongly recommend not to use this strategy (i.e., Belludi, 2008; Schwarz, 2013). Research investigating the effectiveness of the feedback sandwich strategy was not identified from the literature searches for this review. The principles may have been based on research, such as that of Ilgen and Davis (2000), which explored reactions to negative feedback. It is important to recognize that claims pro or con towards the use of the feedback sandwich strategy is not based in evidence, yet nurse educators may be influenced by these opinionated sources to use or not use this strategy in their practice of providing feedback.

Process Level and Self-Regulation Feedback

Process level feedback addresses the process needed to understand or preform the task. At the process level, feed up comments might consider what the student knows about organizing

the needed steps toward the goal; feed back comments might compare a level of performance to the expected performance; and feed forward might direct students to consider future applications or modifications of the process to other situations. Then, at the self-regulation level, feedback addresses self-monitoring, self-directing, or self-regulation of actions. The questions can be applied to build on previous knowledge to explore deeper understandings or alternatives or make connections between learning and practice. (Hattie, 2007).

Bates (2014) expanded concepts related to the learning process and making contextual connections. He wrote about connectivism, which is a relatively new and controversial perspective based in the context of a digital age, where learners need skills to find and connect pieces of information and reflect on meaning from these networks of information. Feedback from this perspective might entail directing students to find connections and consider relative networks.

Self Level Feedback

Hattie (2009) discussed the concept of self level feedback which is feedback that addresses a person's personal attribute. Feedback at the self level does not answer one of the three question categories. It is important to note that Hattie included the self level in the model because it is a common format of feedback given to students by teachers. However, he asserted that this type of feedback does not contribute to student learning (Hattie, 2009; Hattie & Zierer, 2018).

Feedback addressed at the self level focuses on the person, rather than the person's work or performance. Self level feedback is often given in the form of praise (Hattie, 2007). Hattie (2012) argued that although everyone enjoys praise and may be motivated by praise, praise should not be mixed with other feedback "because praise dilutes the power of that information"

(Hattie, 2012, p. 22; Hattie & Zierer, 2018). Students will hear the praise and the other feedback will have less meaning.

A number of studies compared the effects of praise, reproof, and ignoring or assigning a grade without comments as incentives for student achievement (Gee, 1972; Hurlock, 1925; Lutkenhouse, 1975; Page, 1958). Even though praise and reproof had an initial motivating effect, resulting in improved student achievement (Hurlock, 1925; Page, 1958), use of either of these three feedback strategies over time may be demoralizing for the student and result in reduced efforts and diminished achievement (Hattie, 2009). The results of providing a check mark or a grade without comments indicated less improvement than groups who had received praise or reproof feedback (Gee, 1972; Hurlock, 1925; Lutkenhouse, 1975; Page, 1958). Gee (1972) further found that providing praise may provide incentive, but correction was also needed to improve writing skills. Similarly, Lutkenhouse (1975) found that both grades and comments were needed to improve performance. Hattie (2007) proposed that students may get discouraged from praise at the self level. In order to avoid the risk of not living up to the praise, students may minimize future efforts, perpetuating failure. Rather, comments directed to closing the gap between current level of achievement and expected or goal-based level of achievement are more helpful in advancing learning. He furthered that when the feedback is praise, then that should be the only feedback.

Criticism may also be seen. The key point is that self level comments are not effective as feedback for learning and overuse may become a deterrent, demotivating students from learning (Hattie, 2007). Setzler (2009) discussed the difference between criticism and feedback. Although he did not discuss feedback in the educational context, his psychological perspective may provide insight to understanding adult reactions to feedback. Setzler pointed out that adults are

sensitive to criticism, because they have become conditioned to react and be defensive as a result of being subjected to multiple criticisms of right and wrong. He went on to advise that feedback should inform about how actions have affected others and should not attack through accusation and judgment of right or wrong. Rather, feedback should focus on the results, specifically on something that can be changed. Some authors have considered these points in their research

Additional Strategies

Lutz (1989) conducted one of the earlier studies of feedback in nursing courses. She described types of comments made by instructors to improve student writing. She questioned the thinking of effectiveness of instructor feedback as analyzed through positive and negative feedback, arguing that investigators and students may identify positive or negative differently. The types of comments used included validating, invalidating, modeling, specifying, prompting, and probing as the types of comments used by instructors on students' care plans. By knowing what types of comments teachers write, teachers could review types they tend to use, analyze student responses to improving, and purposely alter the types of comments they use to enhance student performance. Students could be prepared to understand the types of comments they might receive which may help them to know how to improve their writing. Collaboration between teachers and students may delineate which type of comments are more helpful, and students may have less negative reactions to comments in their papers.

In typical nursing programs of study, achievement is scaffolded throughout the program. For example, students may be introduced to a skill in their initial nursing course and apply this skill in different clinical contexts with progressive complexity. A number of educational and health-related researchers connect the concepts of facilitating self-reflection through feedback and student learning for professional practice (Dekker, Schonrock-Adema, Snoek, van der

Molen, & Cohen-Schotanus, 2013; Dreifuerst, 2009, 2015; Mariani et al., 2014). Asking questions that promote self-reflection is a strategy that could be used by nurse educators. Nursing students could reflect on what they think they know, integrate new knowledge, and consider applications to practice. Students would benefit from feedback that informs about course and program outcome goals, unrestricted from only receiving feedback that addresses progress in meeting individual assignment objectives. Teachers can maximize learning opportunities for students by having a good grasp of the course and program outcomes, and by not merely focusing on outcomes within individual assignments. Making the connections between theory and practice and directing the thinking process through the use of questions and reflection, can increase the learning capacity in the student (Benner et al., 2010; Drago-Severson & Blum-DeStefano, 2016).

Troxler, Jacobson, and Oermann (2011) identified common elements that are more present among programs that implemented writing across the curriculum than those who do not. Common elements included "short writing assignments, faculty training, sequential writing assignments, examples of successful writing or explanations of grading rubrics, and revisions after faculty or peer feedback" (p. 280).

Anderson, Nightingale, Boud, and Magin (1993) also offered strategies for teachers about providing feedback. They cautioned against over-questioning and over-reading student work. They discouraged over-commenting and over-grading in order to increase teacher efficiency in grading. They suggested refinement of policies and consideration of alternate approaches to assessments, and to utilize technology to help without reducing the quality of learning.

Summary

In summary, although there has been much research in assessing writing and feedback on writing in other disciplines, there is little research about providing feedback to online RN-BSN students. Because the online environment depends on written communication, the assessment of student learning is through written work. In face-to-face situations, students can receive feedback faster than they would online. The clinical environment is typically setup for rapid feedback. There are pre- and post- clinical conferences and supervision during clinical. Instructors have opportunities to step in to provide feedback through guidance for safe practice. They can engage in reflective dialogue about how tasks were carried out and what could be done differently. For the classroom, Benner et al. (2010) suggested strategy changes that engage students, allow them to process information, and to think. Instructors can present scenarios, ask questions, and direct considerations toward different outcomes and responses. They also suggested these strategies be enhanced in the clinical environment. In both settings, students have access to their instructor to ask questions and as role models for professional practice.

In the online environment, the communication and assessment take place through writing. Instructors do not have the ability to observe behaviors or see facial expressions. Instructors cannot interject questions on the spot to stimulate new ways of looking at a clinical situation. There is a delay. Their evidence is students' writing. Similarly, online students do not see the instructor model behaviors of practice. They only have the content in the course and written communications from the instructor. Learning must be articulated in writing and feedback is given on the writing. There is little nursing research that looks at the connection of RN-BSN development and faculty feedback in this environment.

Multiple perspectives of what feedback is and various perceptions of how feedback is used, add to the challenge for educational leaders in RN-BSN programs to sort out effective strategies to target for professional development training. A couple of studies have examined nursing faculty perspectives of teaching and learning practices, including feedback, yet limited findings to particular schools of nursing. A gap in the literature is identifying if common perceptions exist among a more global community of nurse educators.

Chapter Three: Methodology

This quantitative exploratory study set out to identify nurse educator beliefs and perceptions about giving feedback to students in online RN-BSN programs. This chapter addresses the framework, conceptual model, researcher assumptions, research questions, survey development, target population, and the data collection and analysis plan.

Framework

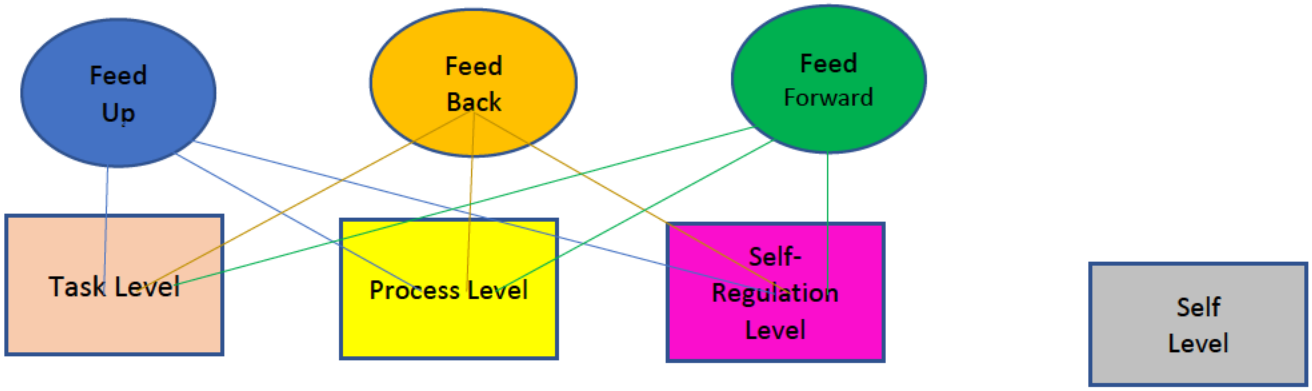
The framework for developing the study included Hattie's (2007) model of feedback and Benner, Sutphen, Leonard, & Day's (2010) recommended strategies that are provided through feedback, such as coaching, making connections between theory and practice, promoting multiple ways of thinking, and providing support for students' professional identity for practice. Two other studies have informed the methodology, Bonnel & Boehm (2011) and O'Flynn and Clauson (2013) who conducted separate qualitative studies, discovering faculty beliefs and practices related to providing feedback. A survey that allows for selection of identified beliefs and practices will identify which beliefs and practices might be shared among a group of nurse educators.

The complexity of Hattie's (2009) model of feedback allows for understanding feedback through several dimensions. There are the types of feedback: feed up, feed back, and feed forward, as well as three levels of feedback relating to learning including task, process, and self-regulation. A fourth level, self, is identified in the research, which Hattie described as commonly found, but not related to learning. The task level relates to the student's knowledge of content. The process level refers to the student's understanding the steps to reach the goals. The self-regulation level is the application towards future understanding. The self level focuses on the

person rather than the work (Hattie, 2012). A section of the survey was designed to address these types and levels of feedback in the model.

Diagram 3.1

Theoretical Framework



Adapted from Hattie's (2009) model of feedback and expanded explanation in Hattie (2012)

Hattie's (2009) model of feedback recognized learning as the purpose for feedback. Both the teacher and the student may act to improve the feedback process or to create barriers in the process. Strategies defined in O'Flynn-Magee and Clauson (2013) and in Bonnel and Boehm (2011) relate to teacher actions in the feedback process. Benner's et al. (2010) recommended strategies align with Hattie's (2009) types of feedback. Hattie's levels of feedback align with Benner's et al. (2010) descriptions of needed ability for nursing students to function in professional practice (See conceptual model; Table 3-1 *Concept Comparisons of Hattie (2009) and Benner et al. (2010)*).

Conceptual Model

A comparison of Hattie's (2009) model and Benner's et al. (2010) recommendations for transformation of nursing education is represented in the Table 3.1 *Concept Comparisons of Hattie (2009) and Benner et al. (2010)*. It should be noted that concepts in Benner's et al.

recommendations may overlap in the types and levels of feedback in Hattie's model. In general, Hattie's task level aligns with Benner's et al. description for students to be able to identify information (knowledge). The process level aligns to student's ability to apply knowledge from multiple perspectives (critical thinking) to make connections between theory and practice. The self-regulation level correlates with student development of ethical comportment, or the attitudes and professional identity for nursing practice. Each of the levels of feedback can be addressed through each of the types of feedback to enhance student learning. For example, feed up or coaching can be applied to task level, process level, and self-regulation level.

Table 3-1.

Concept Comparisons of Hattie (2009) and Benner et al. (2010)

	Hattie (2009)	Benner et al. (2010)
Types of Feedback	Feed Up	Coaching
	Feed Back	Theory-to-Practice
	Feed Forward	Promoting multiple ways of thinking
Levels of Feedback	Task Level	Nursing Skills/ knowledge
	Process Level	Applied knowledge; Critical thinking (clinical decision-making); Making connections
	Self-Regulation Level	Ethical comportment (attitudes and professional identity); future applications
	(Self Level)	

Assumptions

The study design was influenced by a few assumptions. A key assumption was that most nurse educators do not have formal training on giving feedback and may not be aware of

research conducted about feedback. Additional assumptions follow. There are inconsistent grading practices among nurse educators. Providing effective feedback is time-consuming. Feedback can be instrumental in promoting student attainment of the knowledge, skills, and attitude needed for nursing practice. Understanding beliefs about giving and receiving feedback will guide planning for professional development activities.

Research Questions

The study sought to identify trends among nurse educator perceptions regarding beliefs and practices on giving feedback to online RN-BSN students on assignments. The study was designed to answer the research question

> What do nurse educators believe about feedback to students in online RN-BSN programs?

There are seven sub-research questions (RQ) that helped to answer the overarching research question.

- RQ1 What degree of importance do nurse educators place on providing feedback to students in RN-BSN programs?
- RQ2 Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs?
- RQ3 Which attitudes and beliefs do nurse educators hold regarding students and feedback?
- RQ4 Which attitudes and beliefs do nurse educators hold regarding their role and practice of feedback?
- RQ5 What strategies do nurse educators identify that feed up, feed back, and feed forward?

- RQ6 What characteristics do nurse educators identify which address task, process, and self-regulation?
- RQ7 What are the differences between nurse educators' perceptions based on experiences, education, and employment status?

Participants

Nurse educators include licensed nurses who teach in various schools of nursing. Schools of nursing have different levels of programs, such as diploma, associate, baccalaureate, masters, and / or doctorate levels of an academic degree. Baccalaureate degrees in nursing (BSN) may be from a traditional four-year program or from nurses who have completed their diploma or associates' programs and enter a registered nurse-to-baccalaureate (RN-BSN) program. Programs may be held in traditional classrooms, online, or a combination.

Nurse educators may have different educational backgrounds. Some schools of nursing may require instructors to have a doctoral degree, others may require a master's degree. Nurse educators also have varieties of teaching experiences and number of years teaching. This study focused on a target population of nurse educators who teach in online RN-BSN programs. Fowler (2014) explained that one type of sampling error can be avoided by selecting a representative sample of the target population. The target sample for this study had to meet the criteria of teaching online and teaching within an RN-BSN program. Nurse educators who taught online in other nursing programs, but not RN-BSN, or those who taught only face-to-face courses or blended modalities of face-to-face and online were not eligible to participate in the study.

These restrictions posed a limitation on the study results so as to be applicable only to the target population. The survey instrument was designed to screen participant demographics.

Surveys completed by nurse educators who are not teaching in online RN-BSN programs were to be discarded from the data set. A limiting factor is that it is not known how many nurse educators teach in online RN-BSN programs. The demographic items concerning teaching experience and top academic degree will not be factors in the sample selection. These items were included in the survey instrument for statistical analysis.

Sample

A sub-group of nurse educators who teach in online RN-BSN programs use an online tool for health assessment courses. The company, Shadow Health, Inc, offers this tool known as the Digital Clinical Experience© (DCE). The DCE provides virtual simulation experiences with avatars. The student takes the role of the nurse-provider to assess the patient and to collaborate with other team members about the assessment findings and treatment plans. Schools of nursing contract with Shadow Health for students to use the DCE. Nurse educators are registered with the company so as to have access for assessing students' work. Nurse educators may provide student feedback within the DCE or may document student feedback within the school of nursing's learning management system. There are 230 schools specifically identified as RN-BSN programs using Shadow Health as of November 2017. It was unknown how many of these schools have their RN-BSN program online. There were 605 nurse educators registered to teach the RN-BSN modules within Shadow Health (Personal Communication Francisco Jimenez, from Shadow Health, January 4, 2018).

The Shadow Health Research Division agreed to a one-time email distribution to the nurse educators in their RN-BSN registry with information for participating in this study, after evidence of IRB approval was submitted. Distribution was sorted so that only nurse educators enrolled in RN-BSN programs would receive the email invitation, whether the programs were

taught online or not. A survey item that asked about teaching online served as a screening filter for participation eligibility. Shadow Health Inc., did not share personal information about the nurse educators, including names, email addresses, locations, or any other information. They did not reach out for non-responders, nor track who responded.

IRB approval was sought and obtained through Southern New Hampshire University, Manchester, NH. The approval letter and an invitation letter (See Appendix A *Survey Invitation*) were sent to the team at Shadow Health, Inc in November 2017. The invitation letter contained information about the study and how to proceed if the receiver of the invitation wanted to participate in the study. A link was provided to an online Qualtrics survey. The invitation also indicated that the survey information and link could be shared with other nurse educators who may be qualified to respond. Additional contact information for the researcher and committee chair were provided.

Limitations of this sampling design include the fact that not all schools of nursing use the DCE for their courses. Even so, health assessment is merely one course among others within an RN-BSN program. There are other nurse educators who teach online RN-BSN courses but might not teach health assessment and may not have access to the survey. Therefore, the invitation to participate did not reach many of the nurse educators who met the qualification of teaching in online RN-BSN programs. Predictive inferences are stronger with a large population and random representation of the target population (Fowler, 2014; Green & Salkind, 2014; Trochim & Donnelly, 2008). Therefore, predictive inferences are limited in this study.

A G-Power analysis conducted October 21, 2017 indicated a need for a sample size of $n=63$ for one-way ANOVA calculations with a power of $\beta=0.80$. Invitations were distributed to 605 nurse educators on December 28, 2017. The survey closed on January 25, 2018. Seventy-

seven surveys were returned. One survey was blank and discarded, leaving a sample *N=76,* yielding a response rate of 12.5%. An overview of the data revealed an abnormal distribution, violating the normal distribution assumption required for ANOVA testing. Therefore, alternate testing with Kruskal-Wallis test was conducted.

Survey Instrument Development

The contents of the survey were adapted with permission (Personal communication, C. Bagwandeen, June 17, 2017; M. Oermann, August 17, 2015 and April 2017) from research conducted by Bagwandeen and Singaram (2016) and Oermann, Seawert, Charasika, and Yarbrough, (2009), respectively; as well as constructs uncovered in qualitative studies conducted by O'Flynn and Clauson (2013) and Bonnel and Boehm (2011). Variables identifying characteristics of feedback were based on the feedback model (Hattie, 2009) and recommendations for nursing education as described by Benner, Sutphen, Leonard, & Day (2010). A mapping of the research questions to survey items and proposed analysis is illustrated in Appendix B *Mapping Research Questions to Survey*

Survey Instrument Validation

The survey instrument was constructed by a novice researcher, guided by a committee. There was a high possibility of error, such as construction of the questions, positioning order of the questions, ease of responding, and several other factors that might affect the validity of the data. To mitigate the opportunities for error, initial reliability measures (Fowler, 2014) were considered through review by experienced nurse educators and an expert in data measurement. The survey review included considerations for each item about phrasing and word choice, spelling, grammar, clarity, and ease of completion. Estimated time for completion was 10-15

minutes. Field testing is one recommendation as a validity test (Fowler, 2014) and was not conducted prior to survey distribution.

Survey items were collected from constructs identified in previous research on feedback (Bagwadeen & Singaram, 2016; Oermann et al., 2009; O'Flynn & Clauson, 2013; Bonnel & Boehm, 2011). The survey questions were designed to collect demographic information about the participants (14 items), as well as to capture participants' perceptions about the value of feedback (2 items), tools used to provide feedback (5 items), students engagement with feedback (12 items), self-efficacy and attitudes towards providing feedback (9 items), and characteristics of the feedback delivered (15 items). An additional, open-ended question was included for the participant to add any comments about feedback practices.

Survey Instrument Description

This section will describe sections of the survey instrument and the data analysis plan for this study. The entire survey instrument is included in Appendix C.

Demographics. The first question in the survey is designed to screen the eligibility of the participants, asking "Do you (or did you) teach in an online RN-BSN program? All but one survey indicated yes. The ineligible survey was not filled out and was discarded. The other items in this section were designed as multiple-choice. Participants may choose responses. These items are common indicators used by nurse researchers and refer to degrees and certifications, years of teaching and of teaching online, employment, course design experiences, and locations. (See Appendix C *Survey Instrument*). Data was analyzed with descriptive statistics. This data served as variables for statistical analysis to answer RQ7. The plan was to use One-way ANOVA in the comparative analysis. However, the results did not follow a normal distribution. Therefore, Kruskal-Wallis tests were applied to compare findings according to education, employment, and

experiences to partially answer RQ7. Data related to locations was scattered and eliminated from the comparative calculations.

Value of Feedback. The studies reported by O'Flynn and Clauson (2013) and Bonnel and Boehm (2011) described themes of the faculty attributing value in providing feedback to students by expressing the importance of feedback for student learning and student success. The two questions in this survey are designed in a 5-point Likert-scale to measure degree of importance of feedback for student learning and the degree of the importance of feedback for student success. Descriptive analysis will be used to determine frequency and answer RQ2.

Tools Used to Provide Feedback. Researchers have attempted to define the concept of *best practices in online learning* for many years. Technology factors that influence online practices include the learning management system that provides the learning environment, as well as the tools available to educators and student for presenting content, establishing assessments, evaluation, and grading, and for communicating expectations and feedback. Educators may have to depend on technology chosen by the university or college of nursing and may not be able to choose their preferred technology. The aim in this study is to determine which tools are being used and most often, rather than an ambiguous list of preferences that nurse educators may or may not have access to use in their courses. Determining variances between tools that nurse educators have access to and tools nurse educators prefer to use for feedback is beyond the scope of this study.

Bonnel and Boehm (2011) focused on identifying the practices of experienced educators in providing feedback in online courses. One theme uncovered was to *maximize the technology* and generated a list of technical tools. Electronic tools (such as email, shared document files, and others) and assessment strategy tools (such as rubrics or templates) used by faculty to provide

feedback to online students come under this theme. The survey items in this section were adapted from Bonnel and Boehm's findings of the tools used, with the intent to uncover nurse educators' perceptions of frequency of use of these tools (always, often, sometimes, rarely, or never) as well as the three tools preferred, ranked as preferences 1, 2, and 3.

One item asked participants to choose strategies used to inform students of expectations for assignments. They could choose as many in the list as applied. Options included rubrics, announcements, assignment prompts, and syllabus. An additional item, other, allowed respondents to add any strategies that were not mentioned.

Two additional items sought to understand how nurse educators use rubrics and comments as tools in providing feedback to students. Strategies for marking the rubric listed 4 items to choose from. Patterns of commenting on rubrics had five choices. (See Appendix C *Survey Instrument*). Descriptive analysis was used to determine frequency and answer RQ2. Again, it was not feasible to use One-way ANOVA, therefore, Kruskal-Wallis testing was applied to compare findings according to education, employment, and experiences to partially answer RQ7.

Perceptions About Students. Perceptions about how students interact with feedback may influence teachers' practices in providing feedback. Several researchers found that the teacher's attitude influenced feedback provided to students (Bagwandeen & Singaram, 2016; Greasley & Cassidy, 2010; Swanick, 2008, 2009). This section of the survey listed 9 attitudes or perceptions that have been identified in the literature. Participants responded by selecting a degree of agreement along a 5-point Likert scale. Two sample items from this section include: (1) Students understand my feedback, and (2) Students are only interested in the grade. (See Appendix C *Survey Instrument*). Descriptive analysis was used to determine frequency to answer

RQ3. Kruskal-Wallis Tests were applied to compare findings according to education, employment, and experiences to partially answer RQ7.

Perceptions of Practice and Attitudes About Written Feedback. Similar to perceptions about students, attitudes and perceptions about the practice of writing feedback may influence feedback (Bagwandeen & Singaram, 2016; Bonnel & Boehm, 2011; and others). Issues such as self-efficacy about providing feedback, time needed to provide effective feedback, and approaches are examples of themes that have been identified in the research. There are 9 items to score on a 5-point Likert scale to indicate the degree of agreement. Two sample items include (1) Providing effective feedback is time consuming and (2) I am proficient at providing feedback to online RN-BSN students. (See Appendix C *Survey Instrument*). Descriptive analysis was used to determine frequency to answer RQ4. Kruskal-Wallis Tests were applied to compare findings according to education, and experiences to partially answer RQ7.

Perceptions of Feedback Characteristics. For this area, the consideration flows from Hattie's feedback model (2009) combined with recommendations to transform nursing education (Benner et al., 2010). Many of these items were adapted from the survey developed by Bagwandeen & Singaram (2016). Bonnel and Boehm (2011) also identified strategies recommended by educators that characterize feedback such as being proactive with questions and validation, guide and coach to support learning, model communication techniques, and engage in further learning. Two sample items include: (1) Feedback points out errors for correction, (2) Feedback integrates the expected outcome criteria. (See Appendix C *Survey Instrument*). Descriptive analysis was used to determine frequency to answer RQ4, RQ5 and RQ6.

To assess for differences between the key characteristics (types of feedback, levels of feedback, and formatting style of feedback), groups of variables were transformed into composite target variables. Composite target variables from types of feedback included Feed Up, Feed Back, and Feed Forward. Composite target variables from levels of feedback included Task Level, Process Level, and Self-Regulation Level. Then, a single composite variable was constructed to represent Formatting Style in relation to feedback. Kruskal-Wallis Testing was applied to compare findings according to education, experiences, as well as toward attitudes to partially answer RQ7.

Open-ended Question. The final question on the survey provides opportunity for respondents to add any other information about feedback. (See Appendix C *Survey Instrument*). Analysis will be to identify additional themes related to feedback.

Summary

This chapter presented an overview of the methodology for the quantitative study to explore nurse educators' perceptions related to giving feedback to online RN-BSN students. A survey instrument was modeled and adapted from previous research instruments. Themes and content from qualitative studies as well as research on feedback and nursing education practices were integrated into the survey items. A sample of nurse educators were identified and invited to participate in an online survey. The method of analysis of collected data included descriptive methods and Kruskal-Wallis tests. The aggregate information related to nurse educators' perceptions on giving feedback contributes to our understanding of providing feedback and enlightens potential opportunities for professional development of nurse educators.

Chapter 4: Data Analysis

Introduction

This quantitative, exploratory study was chosen to identify nurse educators' beliefs and perspectives about giving feedback to students in online RN-BSN programs. This chapter summarizes the methods of research design and presents the results and process of analysis on data collected for the study. The chapter is organized according to: Research Design, Sample and Participants, and Results with data summaries presented according to the research questions.

Research Design Summary

As a quantitative exploratory study, a survey instrument was developed (See full description in Chapter 3: Methodology and *Appendix C Survey Instrument*). The survey items were organized to obtain demographic information from the participants and items to identify value, attitudes, and perceived practices related to giving feedback in online RN-BSN programs. The items were variables identified in previous studies related to tools used to provide feedback, attitudes about students related to feedback, and practice of feedback (O'Flynn-Magee & Clauson, 2013; Bonnel & Boehm, 2011). Variables identifying characteristics of feedback were based on the feedback model (Hattie, 2009) and recommendations for nursing education as described by Benner, Sutphen, Leonard, & Day (2010).

The survey was reviewed by an experienced nurse educator and a data specialist for any modifications needed for spelling, grammar and readability, wording, usability, content, and time. These are some of the initial reliability measures to assess with survey development (Fowler, 2014). Field testing was not conducted prior to survey distribution. Estimated time to complete was between 10 – 15 minutes. The variable data is categorical in nature with participants selecting either nominal choices or a degree/range of agreement or of frequency on 1

to 5 Likert response scales. Categorical data may have meaningful order, such as from low to high levels of the variable, but intervals between categories cannot be assumed as equal (Leech, Barrett, & Morgan, 2015). This type of descriptive data lends itself to proportion analysis through frequency statistics.

The survey was built in Qualtrics. Data from each completed survey was manually entered into SPSS. Variables were coded into numerical values to enable data analyses (Fowler, 2014). For example, responses to the question "Do you teach, or have you taught in an online RN-BSN program?" were coded with 1 = yes and 0 = no. (See Appendix D *Coding Schematics for SPSS*) Whereas more complex responses requesting choices from a Likert response format were coded 1-5 with an additional code of zero for non-responses.

Steps to check for coding errors and data outliers were conducted (Fowler, 2014). Data was visually assessed for assuring use of only designated coding. Then, frequency distribution tests where run to check for coding errors and data outliers. Identified coding errors were corrected and correct responses verified against original surveys. For example, variables which did not have an indicator for no response to a survey item had a code added to account for missing data. The survey was checked to assure the correct code was indicated in the data set. Potential outliers were also verified against the original survey data and corrected, when indicated. Data checks were re-run until no further errors were identified. (See Appendix F *SPSS Outputs with Frequency Tables and Histograms*.)

New variables were built into conceptual composites (Leech et al., 2015) to represent key theoretical concepts, including, types of feedback (Feed Up, Feed Back, & Feed Forward), levels of feedback (Task, Process, & Self-regulation), and characteristics of format style. (See Table 4.11 and Appendix E *Target Variable Transformation*). These composite variables were used to

determine possible relationships between variables that might demonstrate an effect on feedback. Composite variables were constructed by combining variables associated with practice. Specifically, Feed Up is a composite of the following variables: incorporating a plan for improvement, and suggesting resources to support achievement (C_Plan; C_Resour). Feed Back is a composite of the following variables: integrates expected outcomes and directs students to make theory-to-practice connections (C_EOC; C_Conn). Feed Forward is a composite of suggesting alternative ideas and extending the expected outcomes (C_Alt; C_Ext).

Likewise, the concepts related to levels of feedback were operationalized with the variables related to other characteristics of feedback related to practice. Task Level is a composite of pointing out errors, correcting skills, and acknowledging achievements (C_Error; C_Skill; C_Ack). Process level is a composite of suggesting alternative ideas and directing students to make connections between theory and practice (C_Alt; C_Conn). These two variables are included in the composites of Feed Forward and Feed Back, respectively. The feedback model (Hattie, 2009, 2012) indicated that each type of feedback could be applied to each level of feedback. The combination of variables characterizes the concepts. The Self-Regulation Level is a composite of directing students to reflect on previous strategies and commenting on professional behaviors and communication (C_Refl; C_Prof; C_Comm). The final concept composite is for formatting characteristics of feedback as related to practice, including use of non-judgmental language, non-biased influence, and complete sentences (C_Lang; C_Infl; C_Sent).

Preliminary Kruskal-Wallis tests were calculated using SPSS. Data was again reviewed and missing responses from sections related to attitudes towards practice were removed and managed as missing data for calculations. Therefore, the participant number changed in these

calculations (*N=75*). All frequency tables and Kruskal-Wallis tests were recalculated with the cleaned data. The recalculated data results are reported.

Sample Selection and Participants

Selection Process

Nurse educators who teach in online RN-BSN programs were the targeted population to receive the survey instrument. Potential participants were contacted through Shadow Health, Inc., an organization which provides an online product for Digital Clinical Experiences © (DCE) for colleges and universities to use in health care programs. One DCE product is RN-BSN-level health assessments. There are 230 RN-BSN programs nation-wide who use this product. There were 605 nurse educators registered as instructors for this product as of November 2017 (Personal Communication, F. Jimenez, January 4, 2018).

Invitations to participate were distributed by Shadow Health via a one-time email to these nurse educators. The email addresses were kept confidential and were not provided to the researcher. The survey was available from December 28, 2017 through January 25, 2018. Seventy-seven surveys were returned. One survey contained no responses and was discarded. Another survey did not respond to survey items related to perceived practices. The total number of surveys was 76 (*N=76*), yielding a 12.5% return rate.

Participants

Through the use of descriptive data, analysis about the teaching and educational experiences of the participants, including years teaching in nursing and years teaching online, programs taught, highest degree, if teaching strategies were included as a part of their formal education, and certification as a nurse educator can be shown through frequency tables (Tables 4.1a -4.1d).

The variables that identify the range of years were listed as 0-1, 1-3, 3-6, 6-10, and 10+. It may be possible that the variables for years teaching in nursing and years teaching online may vary slightly if interpreted differently. For this study, 0-1 indicated up until one year of experience in teaching, 1-3 years indicated at least one year and up to three years, and so on. The median was chosen as the measure for central tendency for categories chosen (Fowler, 2014). For example, with the construct of the variable for years teaching in nursing, calculation of the mean is only meaningful in the context of categories. The mean number of actual years is not possible to determine in this data set. Calculations in the table are reported by the number of responses and percentages. There were 39.5% of participants who have been teaching in nursing programs for 10 years or longer, with a median of the participants indicating they have been teaching nursing for 6-10 years (*M=4*). With the variable of teaching nursing online, the median moved to 3-6 years (*M=3*) with 25% of the participants. Participants who indicated they have taught online for 6-10 years and more than 10 years were 22.4% and 19.7% respectively (See *Table 4.1a Participants: Years Teaching Nursing and Table 4.1b Participants: Years Teaching Online*).

Table 4.1a
Participants: Years Teaching Nursing *(N=76)*

Years	*n*	Percent	Valid Percent
0-1	4	5.3	5.3
1-3	11	14.5	14.5
3-6	15	19.7	19.7
6-10	16	21.1	21.1
10+	30	39.5	39.5
Total	76	100.0	100.0

Table 4.1b
Participants: Years Teaching Online (N=76)

Years		*n*	Percent	Valid Percent
Valid	0-1	7	9.2	9.2
	1-3	18	23.7	23.7
	3-6	19	25.0	25.0
	6-10	17	22.4	22.4
	10+	15	19.7	19.7
	Total	76	100.0	100.0

Many of the participants have taught in different degree programs. It is not unusual that faculty teach in more than one nursing program within a school or college of nursing. For this item, calculations of central tendencies do not provide meaningful information for programs taught and highest degree. Results are reported as percentages (*N=76*). All participants indicated at the beginning of the survey they taught in RN-BSN programs. It was anticipated that 100% would indicate RN-BSN as one of the degree programs taught and that there would be representation from other types of programs as well. Under this item of programs taught, 4 participants did not select RN-BSN, accounting for the 94.7% who selected RN-BSN. Samples were not excluded from the data sets.

The degree program most of the participants teach in addition to the RN-BSN is the BSN program at 72.4% (See *Table 4.1c Participants: Degree Programs Teach*). A majority of the participants hold doctorate degrees, while a significant number hold MSN degrees. (See *Table 4.1d Participants: Highest Degree Obtained*). The other 6 write-in degrees that were identified included master's level in Public Health, Dual MSN and MBA, and doctoral-level with one a PhD candidate, two Doctor of Nursing Science, and one Doctor of Health Administration.

Table 4.1c

Participants: Degree Programs Teach

Program	*n*	Percent	Valid Percent
ADN	32	42.1	42.1
BSN	55	72.4	72.4
RN-BSN	72	94.7	94.7
MSN	33	43.4	43.4
DOC	6	7.9	7.9
Other	6	7.9	7.9

Table 4.1d

Participants: Highest Degree Obtained (N=76)

	Degree	*n*	Percent	Valid Percent
Valid	MSN	31	40.8	40.8
	PhD	19	25.0	25.0
	DNP	16	21.1	21.1
	EdD	4	5.3	5.3
	Other	6	7.9	7.9
	Total	76	100.0	100.0

Further demographics of interest include the participant's teaching experience and employment. (See *Table 4.1e Participants: Teaching Experience and Employment*). There were 73.7% participants who indicated that teaching strategies were included in the curriculum as a part of their formal education. Only 23.7% of the participants are certified as nurse educators (CNE). Most of the participants are working as nurse educators full time (60.5%), while others teach at more than one college (23.7%) or have other nursing positions while teaching (52.6%). Some universities allow instructors to design their own online courses, while other universities design the course for nurse educators to teach. Of these participants, 38.7% indicated that they design their own online course.

Table 4.1e

Participants: Teaching Experience and Employment (N=76)

Experience and Employment	Percent
Formal education included teaching strategies	73.7
Certified as Nurse Educator	23.7
Working full-time	60.5
Working part-time	32.9
Teaching at more than one college	23.7
Working another nursing position	52.6
Design own online course	38.2

Participants were also asked about how they learned about giving feedback to online RN-BSN students, by trial and error experiences, formal course work, professional development, training through technology tools in the online classroom, informal training (such as orientation and coaching), and a combination of 2 or more of the choices. There were 76.3% who indicated they learned to provide feedback via a combination of two or more of the strategies. (See *Table 4.1f Participants: Methods Learned to Give Feedback*).

Table 4.1f

Participants: Methods Learned to Give Feedback (N=76)

	Ways*	*n*	Percent	Valid Percent
Valid	Trial & Error	7	9.2	9.2
	Formal Course Work	4	5.3	5.3
	Professional Dev	4	5.3	5.3
	Technical Tools	3	3.9	3.9
	Combination of 2+	58	76.3	76.3
	Total	76	100.0	100.0

*The item of informal training was not selected.

The survey included two items for participants to identify their state of residency and the state of the online program they taught in. Specific states of residency and of nursing programs were not reported for this study and were not used in the data analysis.

In summary, the participants in this study were nurse educators who taught in online RN-BSN programs. There were 60.5% participants who indicated they were teaching full-time and 52.6% reported additionally working in a non-teaching nursing position. The median years of teaching experiences in nursing centered at 6–10 years, with the median years of teaching nursing online at 3-6 years. There were 40.8% of the participants who indicated MSN preparation, while a summation of the various doctoral degrees indicated that an additional 51.4% participants held a doctorate degree. Doctorate degrees specific to education were represented by 5.3% of the participants. There were 73.7% participants who reported that teaching strategies were included in their formal education. Nurse Educator Certification (CNE) was recorded at 23.7%. Lastly, 38.2% of the participants indicated that they designed their own online course.

Data Analysis Related to Research Questions

This section will present the data analysis to answer the research question, What do nurse educators believe about feedback in online RN-BSN programs? The sub-questions provide the information. Data analysis is discussed according to each of the sub-questions, numbered one through seven. Frequency tables follow data explanations.

Value of Feedback

Research Question One. What degree of importance do nurse educators place on providing feedback to students in RN-BSN Programs? This question was addressed by two survey items that asked about the degree of importance of feedback for student learning and for student

success. Frequency percentages were calculated. Findings indicated that 100% of the participants believe that feedback is extremely important or very important for student learning and student success (*See Table 4.2 Value: Importance of Providing Feedback*). The categories of moderately important, slightly unimportant, and not at all important did not get any responses.

Table 4.2

Value: Importance of Providing Feedback (N=76)

	Very Important %	Extremely Important %	*
For Student Learning	11.8	88.2	100%
For Student Success	15.8	84.2	100%

*No selections for moderately important, slightly important, or not at all important.

Feedback Tools

Research Question Two. Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs? This question was addressed through five survey items: two items for participants to indicate frequency of use and preferences of technology tools, plus three items to address teaching strategies for indicating and evaluating expectations for assignments.

In the first of these items, a list of technology tools was provided with instructions to indicate frequency of use for each tool in providing feedback. These tools were identified in the literature as tools used in online education programs (Bonnel & Boehm, 2011). These tools include email, asynchronous modes (such as discussion boards, announcements, etc.), synchronous meetings (such as online meeting spaces in real-time and others), phone or text chats, voice-over PowerPoint, video messaging, audio files, and sharing document files. Although phone calls may be considered by some to be a synchronous tool, this item was treated as a separate category of tools. Choices were given on a 5-point Likert response format for each variable with available selections from Never to Always. To address this question, the

percentages for frequency of use for each tool were obtained and are shown in *Table 4.3a Tools Used to Provide Online Feedback* and is not a comparative measure of frequency among all the tools. The preferred tools are represented in *Table 4.3b Preferred Tools for Feedback.*

The percentages of participants' choices are listed by each category under the tool. The top three tools participants identified include Shared Documents (65.8%), Asynchronous (47.4%), and e-Mail (42.1%). (*See Table 4.3a Tools Used to Provide Online Feedback*). It is also significant to note the frequency in which tools are never used, including Synchronous sessions (50%), Voice-over PowerPoint (48.7%), Video messaging (59.2%), and Audio files (53.9%).

Table 4.3a

Tools Used to Provide Online Feedback (N=76)

	No response %	Never %	Sometimes %	About half the time %	Most of the time %	Always %
e-Mail	1.3	2.6	23.7	14.5	14.5	42.1
Asynchronous	2.6	5.3	10.5	5.3	26.3	47.4
Synchronous	1.3	50.0	34.2	3.9	6.6	3.9
Phone	0	15.8	51.3	14.5	13.2	5.3
Voice PPT	2.6	48.7	22.4	7.9	11.8	6.6
Video Messaging	2.6	59.2	19.7	6.6	7.9	3.9
Audio	2.6	53.9	26.3	5.3	7.9	3.9
Shared Doc	0	3.9	3.9	7.9	18.4	65.8

An additional item, *other*, was added for participants to write-in any tools not already mentioned. Seven participants added tools. Two participants indicated tools that were already in the list, including *course announcements* (asynchronous) and *Zoom office hours and meetings* (synchronous meeting space). These participants also checked the synchronous item in the listed tools. One indicated they used *screen shots of documents with important key elements highlighted* which could be categorized under shared documents. Screen shots was not listed specifically as an example of a shared file for the survey instrument. This nurse educator also

selected “always” for shared files and would be included in that percentage. Two participants indicated they message students in the grade book. Another indicated *weekly screen sharing videos* as another method. This may be categorized with video messaging. There was one other participant who indicated *weekly summaries to the entire class*. However, the mode of sending these weekly summaries was not specified.

Furthermore, participants were asked to indicate their top three preferred tools to use when providing feedback to their online students. The survey items contained a click and drag feature in the instrument. Expected findings were that participants would move one tool to the Preference 1 box to indicate their top choice, one tool into the Preference 2 box, and one for Preference 3. Two of the completed surveys contained more than one item in one or more of the preference boxes. Preferences for these surveys were scored as the top three items under preference #1 and then, #2, if applicable, in consecutive order for three items. The extra items were not counted. Frequency tables revealed that the three most preferred tools included shared documents, asynchronous communications, and text or calls via phone. Using shared documents was chosen as one of the preferred choices by 81.6% of the participants. Asynchronous communication was the next preferred tool. Least preferred tools to use included synchronous, voice-over PowerPoints, video, and audio files. (See percentages of tool choices by preference in *Table 4.3b Preferred Tools for Feedback*.)

Table 4.3b

Preferred Tools for Feedback (N=76)

Tools	Preference 1 %	Preference 2 %	Preference 3 %
email	9.2	15.8	13.2
Asynchronous	28.9	31.6	13.2
Synchronous		6.6	9.2
Phone	10.5	10.5	27.6
Voice-PowerPoint	1.3	3.9	
Video	1.3	1.3	9.2
Audio files	1.3	6.6	2.6
Shared Documents	46.1	18.4	17.1
other		1.3	3.9
No response	1.3	3.9	3.9

Additional information to address Research Question Two were retrieved from items that explored the tools used by nurse educators to inform students of expectations and strategies used to evaluate. Informing students of expectations for assignments listed the following tools: rubrics, assignment prompt with instructions or guidelines, syllabus, and announcement or other messaging. (See *Table 4.3c Tools to Inform Expectations*). Participants were asked to select each tool that applied. Therefore, each tool variable shows a frequency of use independently and is not a comparative against all tools used. An additional category of other was available for participants to add any method that was not listed. Items written in as other included quizzes (1), personal messages (1), and weekly video – online module navigation (1). Preference of tools used to inform expectations was not determined. This item was needed to support the next item that explores nurse educators' use of rubrics.

Table 4.3c

Tools used to Inform Expectations (N=76)

Tools	Percent Use
Rubrics	98.7
Assignment prompts	84.2
Syllabus	80.3
Announcements	77.6
Other	3.9

With over 98% of participants using rubrics, information of how they use them is useful to explore. The next item listed considerations for participants to choose including checking or highlighting the box in the grid representing the level of achievement, insert comments to indicate achievement, check or highlight plus insert comments, and the last item was that they do not use rubrics. Participants were instructed to choose all that applied. (See *Table 4.3d Tools: Use of Rubrics*).

Table 4.3d

Tools: Use of Rubrics (N=76)

	n	Percent
Check box	37	48.7
Highlight box	18	23.7
Insert comments	54	71.1
Check or Highlight and comment	51	67.1
Do not use rubrics	1	1.3
No response	2	2.6

Further exploration related to use of comments on the rubrics was needed. Placement of comments and types of comments may vary among educators. There were 42.1% of the participants who identified the pattern that they use most often as they mark criteria for achievement level, comments made within each item of criteria, acknowledge achievement and areas for improvement, and comments at the end to summarize achievement (See *Table 4.3e Tools: Comments on Rubrics*).

Table 4.3e

Tools: Comments made on Rubrics

Pattern Description	*n*	Percent	Valid Percent
Does not use rubrics	4	5.3	5.3
Mark level & Summative comment re: Achievement	6	7.9	7.9
Mark level & Summative comment re: Achievement w suggestions to Improve	14	18.4	18.4
Mark level & comment on each re: achievement & Improvement suggestions	17	22.4	22.4
Mark level & comment on each re: achievement & Improvement suggestions with summative comment	32	42.1	42.1
Marked more than one choice	3	3.9	3.9
Total	76	100.0	100.0

Attitudes Toward Students and Feedback

Research Question Three. Which attitudes and beliefs do nurse educators hold regarding students and feedback? To explore nurse educator attitudes towards students and feedback, a series of nine statements asked participants to consider the majority of RN-BSN students they have provided written feedback to in the online courses and indicate level of agreement with each statement. To address this research question, basic descriptive statistics were used to determine the median and frequency. (See *Table 4.4 Attitudes towards Students and Feedback*).

Of note, most of the respondents somewhat agreed (36. 8%) or strongly agreed (59.2%) that students understood their feedback. That students have clear expectations for their assignments resulted in somewhat agreement at 28.9% and strongly agree at 69.7%. Results of

attitudes related to students not attending to feedback (*M=3.5*), only interested in grades (*M=3.5*), and compare grades with other students (*M=3*) showed responses across each level of agreement, with a small percentage selecting strongly disagree with these statements. The choice of strongly disagree was not selected for the other statements. Median perceptions related to students being emotionally invested, interested in improvement, agree with the feedback, and applying feedback to future assignments were scored at somewhat agree (*M=4*).

Table 4.4

Attitudes Towards Students and Feedback (N=76)

Attitudes	Median	Strongly Disagree %	Somewhat Disagree %	Neither Agree or Disagree %	Somewh at Agree %	Strongly Agree %
Students understand my feedback	5		1.3	2.6	36.8	59.2
^Students are emotionally invested in the assignments	4		7.9	7.9	50	32.9
Students do not attend to my feedback	3.5	5.3	34.2	10.5	47.4	2.6
Students are only interested in the grade	3.5	7.9	23.7	18.4	35.5	14.5
Students are interested in learning how to improve	4		6.6	9.2	59.2	25
^Students agree with my feedback	4	1.3	2.6	25	56.6	13.2
Students compare their grades to other students taking the course	3	5.3	6.6	52.6	25	10.5
Students apply feedback to future assignments	4		6.6	15.8	69.7	7.9
^Students are presented with clear expectations for their assignments	5				28.9	69.7

No responses selected for empty cells; ^Missing one response to survey question *(N=75)*, from different participants

Attitudes about Role and Practice

Research Question Four. Which attitudes do nurse educators hold regarding their role and practice of feedback? To answer this question, perceptions related to (a) role in providing feedback, (b) time allotment, (c) uses, and (d) format style were explored.

In considering nurse educator attitudes toward *role perceptions* in relation to providing feedback, some of the concepts related to the characteristics of feedback may overlap. For the purposes of this study, there were three variables to describe nurse educator perceptions of role, including providing feedback, reflecting on teaching approaches according to students' performance, and perceived proficiency at providing feedback. To address role perceptions as related to Research Question Four, basic descriptive statistics were used to determine the median and frequency of levels of agreement from strongly disagree to strongly agree. (See *Table 4.5a Practice Perceptions: Role in Providing Feedback*).

Nurse educators in this study indicated strong agreement that their role involves providing feedback to students (*M=5*; 92.1%). There were 42.1% who somewhat agreed and 44.7% who strongly agreed that they reflect on their teaching approach *(M=4)*. There were 40.8% who somewhat agreed and 50% who strongly agreed *(M=4.5)* that they were proficient in providing feedback to online RN-BSN students.

Table 4.5a

Practice Perceptions: Role in Providing Feedback (N=76)

	Median	Strongly Disagree %	Somewhat Disagree %	Neither Agree or Disagree %	Somewhat Agree %	Strongly Agree %
One role of the nurse educator is to provide feedback to students.	5				7.9	92.1
I reflect on my teaching approach according to the students' performance in the assignment.	4	2.6		10.5	42.1	44.7
I am proficient at providing FB to online RN-BSN students	4.5		1.3	7.9	40.8	50

Time allotment is a theme historically identified in discussions with faculty practice perceptions about providing feedback. Two aspects of time are explored in this study: time-consuming and having enough time. To address *time perceptions* as related to Research Question Four, basic descriptive statistics were used to determine the median and frequency *(Table 4.5b Practice Perceptions: Time).*

There were 55.3% of the nurse educators who strongly agreed that providing feedback is time-consuming, while 35.5% somewhat agreed *(M=5)*. The second aspect of time is having enough time to provide meaningful feedback. There were 31.6% who strongly agreed and 40.8% who somewhat agreed that they have enough time allotted *(M=4)*. It bears recognition to note that a total of 14.4% either strongly or somewhat disagree that they have enough time allotted to provide meaningful feedback.

Table 4.5b
Practice Perceptions: Time (N=76)

	Median	Strongly Disagree %	Somewhat Disagree %	Neither Agree or Disagree %	Somewhat Agree %	Strongly Agree %
^Providing Feedback is time consuming	5	1.3	1.3	5.3	35.5	55.3
I have enough time to provide Feedback	4	3.9	10.5	13.2	40.8	31.6

^One participant did not respond to this item *(N=75)*

In considering the perception of nurse educator practices in relation to the *uses of feedback*, some of the concepts related to the characteristics of feedback may overlap. For the purposes of this study, there were four items that measured attitudes associated with the use of feedback in practice, including use as coaching, use for current assignment, use as punishment

and rewards, and use as a part of the grade. To address practice perceptions of use of feedback as related to Research Question Four, variables were measured on a 5-pt Likert response format for degree of agreement. Presented data includes the Median *(M)* and the percentages. (See *Table 4.5c Practice Perceptions: Attitudes Related to Use of Feedback*).

Results for attitudes related to the use of feedback included coaching *(M=5)*, informing current assignment only *(M=4),* providing rewards and punishment *(M=3.5)* and as part of the grade *(M=5).* Note that none of the participants disagreed that feedback is used to coach students to achieve outcomes.

Table 4.5c

Practice Perceptions: Attitudes Related to Use of Feedback (N=76)

	Median	Strongly Disagree **%**	Somewhat Disagree %	Neither Agree or Disagree %	Somewhat Agree %	Strongly Agree %
Feedback is used to coach students to achieve outcomes.	5				19.7	80.3
^Feedback should only provide information about the current assignment.	4	3.9	30.3	11.8	30.3	22.4
Grades provide rewards and punishments according to the quality of students' work.	3.5	13.2	7.9	28.9	36.8	13.2
Feedback is part of the grade	5	2.6	6.6	13.2	25.0	52.6

^One participant did not respond to this item *(N=75)*

The next set of characteristics associated with practice perceptions of feedback included *formatting style* of feedback. These relate to practices that might affect students' understanding and interpretation of the feedback as receivers of the feedback (Hattie & Timperley, 2007; Tuvesson & Borglin, 2014). The variables consist of the following feedback characteristics: consistently uses non-judgmental language; not influenced by student's race, gender, or ethnicity; and is clearly written in complete sentences. To address practice perceptions of formatting style as related to Research Question Four, variables were measured for frequency of use and medians on a 5-pt Likert response format from Never to Always (See Table 4.5d *Practice Perceptions: Formatting Style*).

Practices identified as always or most of the time by the participants included feedback that uses non-judgmental language ($M=5$), is not influenced by race, gender, or ethnicity ($M=5$), and is clearly written in complete sentences ($M=4$). Percentages in this section suggest there may have been a misunderstanding related to the direction of the scale for two of the items, use of non-judgmental language and not being influenced by student's race, gender, or ethnicity. The expected findings were that nurse educators would perceive these items to be demonstrated most of the time or always. The potential error may have an influence on the analysis to answer Research Question Seven (discussed later).

Table 4.5d
Practice Perceptions: Formatting Style (N=76)

	Median	Never %	Sometimes %	About half the time %	Most of the time %	Always %
Feedback consistently uses non-judgmental language	5	1.3		2.6	30.3	64.5
Feedback is not influenced by students' race, gender, or ethnicity.	5	2.6	1.3	2.6	3.9%	88.8
Feedback is clearly written in complete sentences.	4		2.6	2.6	44.7	48.7

Application of Feedback Strategies

Research Question Five. Do nurse educators identify feedback strategies that feed up, feed back, and feed forward? The next data sets were based on the three types of feedback strategies addressed in Hattie's (2009, p. 176) feedback model (feed up, feed back, and feed forward). To address perceptions about the use for types of feedback strategies as relates to Research Question Five, variables were measured for frequency and medians on a 5-pt Likert response format for frequency of use, from Never to Always. (See *Table 4.6 Perceptions of Use for Types of Feedback Strategies: Feed Up, Feed Back, and Feed Forward*.)

The strategy of *feed up* refers to feedback that answers the question "Where am I?" (Hattie, 2009). Feed up correlates with Benner's et al. (2010) recommendation for teaching strategies that coach. Variables that measure characteristics indicating use of feed up strategies included: incorporates a plan for improvement (*M=4*); and suggests resources to support achievement (*M=5*). The category of never was not selected by participants.

The strategy of f*eed back* refers to feedback that answers the question "Where am I going?" which addresses performance (Hattie, 2009). This also aligns with Benner's et al. (2010) recommendation to make theory-to-practice connections. Variables that measure characteristics indicating use of feed back strategies included: integrates the expected outcome or competency criteria (*M=5*) and directs students to make connections between theory and practice (*M=4*). The category of never was not selected by participants.

The strategy of *feed forward* refers to feedback that answers the question "Where to next?" (Hattie, 2009). This aligns to Benner's et al. (2010) recommendation to promote multiple ways of thinking. Variables that measure characteristics indicating use of feed forward strategies included: suggests alternative ideas of approaches for consideration (*M=4*) and includes strategies that extend the expected learning outcomes (*M=4*). The category of never was not selected by participants.

Table 4.6

Perceptions of Use for Types of Feedback Strategies: Feed Up, Feed Back, and Feed Forward (N=75)*

	Median	Never %	Sometimes %	About half the time %	Most of the time %	Always %
Feed Up						
Incorporates a plan for improvement.	4		5.3	7.9	40.8	44.7
Feedback suggests resources to support achievement.	5		3.9	5.3	35.5	53.9
Feed Back						
Feedback integrates the expected outcome or competency criteria.	5		1.3	1.3	31.6	64.5
Feedback directs students to make connections between theory and practice	4		2.6	10.5	46.1	39.5
Feed forward						
Feedback suggests alternative ideas of approaches for consideration	4		3.9	6.6	47.4	39.5
Feedback includes strategies that extend the expected learning outcomes.	4		6.6%	11.8%	53.9%	26.3%

*One participant did not complete this section on the survey. The category of Never was not selected for any of the items.

Application of Feedback Characteristics

Research Question Six. Do nurse educators identify characteristics of feedback they use which address task, process, and self-regulation? This next section of data looked at nurse educators' perceptions of use of feedback characteristics that align to the levels of feedback suggested in Hattie's (2009) model of feedback. These levels include tasks, process, and self-regulation levels. (The level of self from Hattie's model is not directly conceptualized for this

study.) Levels of feedback also align with concepts identified by Benner et al. (2010) and include nursing skills and knowledge, applied knowledge, such as critical thinking for decision-making, and ethical comportment. It is understood that there is overlap of concepts as levels of feedback can be applied to each type of feedback (types as addressed in Research Question Five). To address perceptions about the levels of feedback as relates to Research Question Six, variables were measured for frequency and medians on a 5-pt Likert response format for frequency of use, from Never to Always. (See *Table 4.7 Perceptions of Use for Levels of Feedback: Task, Process, and Self-Regulation*)

The variables to measure perceptions of *task-level* applications for feedback included pointing out errors for correction *(M=4)*, giving information about scholarly skills *(M=5)*, and acknowledging areas performed well or correctly *(M=5).* The variables to measure perceptions of *process-level* applications for feedback included suggestions for alternative ideas or approaches *(M=4)* and directing students to make connections between theory and practice *(M=4).* Then, the variables to measure perceptions of *self-regulation* level applications for feedback included encouraging students to reflect about previous learning or strategies *(M=4)*, informing about professional standards of behavior *(M=4)*, and informing about communication *(M=4).* Frequencies can be seen in Table 4.7 below.

Table 4.7

Perceptions of Use for Levels of Feedback: Task, Process, and Self-Regulation (N=75)*

	Median	Never	Sometimes %	About Half the Time %	Most of the Time %	Always %
Task Level						
Feedback points out errors for correction	*4*		5.3	9.2	38.2	46.1
Feedback is given about scholarly skills.	*5*		2.6	6.6	32.9	53.3
Feedback acknowledges areas students performed well (Correctly).	*5*		3.9	9.2	32.9	52.6
Process Level						
Feedback suggests alternative ideas or approaches for consideration	4		3.9	6.6	47.4	39.5
Feedback directs students to make connections between theory and practice	4		2.6	10.5	46.1	39.5
Self-Regulation Level						
Feedback encourages students to reflect about previous learning or strategies	4		2.6	11.8	50	34.2
Feedback is given about professional standards of behavior.	4		9.2	15.8	32.9	39.5
Feedback is given about communication.	4		7.9	11.8	38.2	40.8

*One participant did not complete this section on the survey.
None of the participants chose the category of Never for any of the items.

Consistencies of Perceptions: Research Question Seven

Research Question Seven. What are the differences in nurse educator's perceptions based on experiences, education, and employment? To address this research question, the median

responses across the groups were compared using Kruskal-Wallis test. The responses for location were not tested.

Non-parametric testing is needed because the normality assumption for parametric testing was violated, as displayed in the histograms of variables which show skewed distributions (See Appendix G.2 *Target Variables Tables and Histograms*). Therefore, Kruskal-Wallis tests were appropriate to use. Through the Kruskal-Wallis, comparisons can be made to rank medians of groups and identify significance of comparisons. There is no restriction related to the population distribution of variables.

Differences of Attitude Based on Education, Employment, and Experiences

Much of the data indicated no significant relationships between variables, when conducting Kruskal-Wallis Tests between attitudes and demographic categories. To run these tests, each of the demographic variables were designated as the group variables. Each of the attitude variables were run as the test variables for each of the demographic variables. There are some differences associated with education, employment, and experiences (See Table 4.8 *Differences of Attitude Based on Education, Employment, Experiences).*

Kruskal-Wallis Tests simply inform that there are differences in groups, but do not indicate where those differences occur. To determine where those differences are between groups, the Median Test could be performed for each set of compared variables (Green & Salkind, 2014). However, the sample size was not sufficient to perform Median Tests with accuracy. Differences were compared by crosstabulation. Results presented after the table.

Table 4.8

Differences of Attitude Based on Education, Employment, Experiences

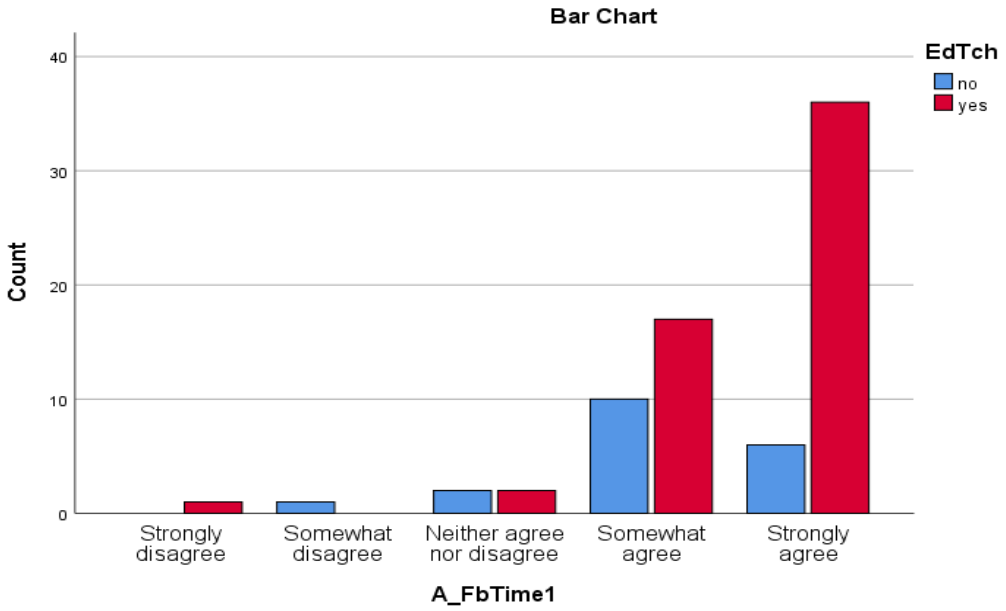
		Kruskal-Wallis	df	*Asymp. Sig*
Education				
	Education of teaching strategies			
	FB is time-consuming	6.460	1	.011
Employment				
	Employment Status			
	Time enough	7.794	2	.020
	Teaching at more than one college of nursing (i.e., Plus)			
	Students do not attend to my feedback	6.396	2	.041
	Role to provide FB	14.881	2	.001
	Another non-teaching position			
	Role to provide FB	12.571	2	.002
	FB used for coaching	9.941	2	.007
Experiences				
	Years teaching in nursing			
	Role to provide feedback	12.063	4	.017
	FB used for coaching	9.564	4	.048
	Designer of online course			
	Role to provide FB	4.057	1	.044
	FB used for coaching	7.988	1	.005
	Learned how to provide feedback			
	Role to provide FB	11.188	4	.025

Education. One group variable, formal education of teaching strategies, revealed a significant difference with the attitude variable, feedback is time-consuming $x^2(1) = 6.46, p = 0.01$. In comparing education of teaching strategies with the attitude of feedback is time-consuming through crosstabulations, the main difference between groups having formal

coursework about teaching strategies or not lies between strongly agree and somewhat agree of attitude. See Chart 4.1below for illustration.

Chart 4.1

Education of Teaching Strategies: Feedback is Time-Consuming



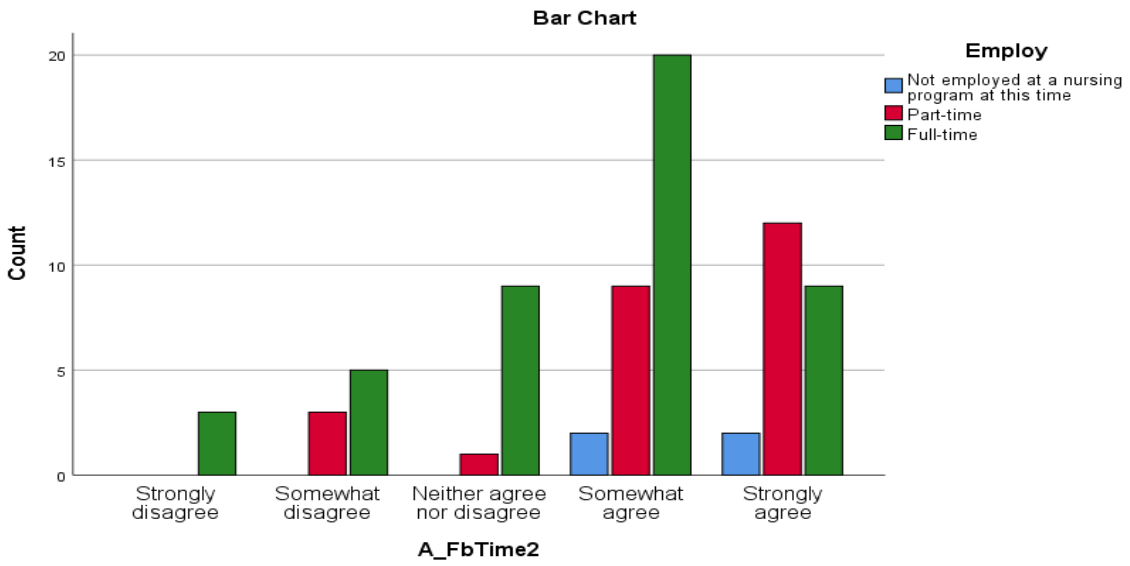
Employment. There are three group variables associated with employment experiences that demonstrated an effect with some of the attitudes. Effects are seen between employment status and having enough time to give feedback; teaching at more than one college or university between the attitudes of students attending to feedback and between the educator's role in providing feedback; and working at another non-teaching job showed an effect between role and coaching.

Employment Status: Enough Time. The group variable employment status revealed a difference with the attitude having enough time to give feedback x^2 (2) = 7.79, p = 0.02. Crosstabulations indicated differences between each work status, with those working full-time showing the largest spread of agreement. The four educators not employed at a nursing program

at this time tended toward agreement. Those working full- and part-time also tended toward agreement, however, had representation in the disagreement categories. (See Chart 4.2).

Chart 4.2

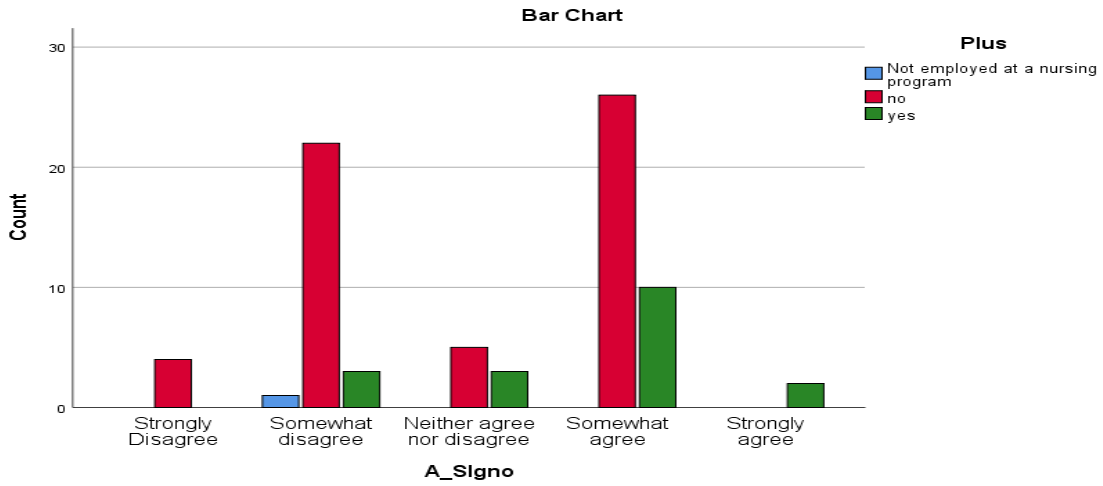
Employment Status: Enough Time



Teaching at more than one: Students do not Addend to Feedback. Teaching at more than one college or university revealed an effect with students not attending to feedback [$x^2(2) = 6.40, p = 0.04$] and role in providing feedback [$x^2(2) = 14.88, p = 0.001$]. Crosstabulation with students do not attend to feedback demonstrated some differences between each category (strongly disagree through strongly agree) See Chart 4.3 below for illustration.

Chart 4.3

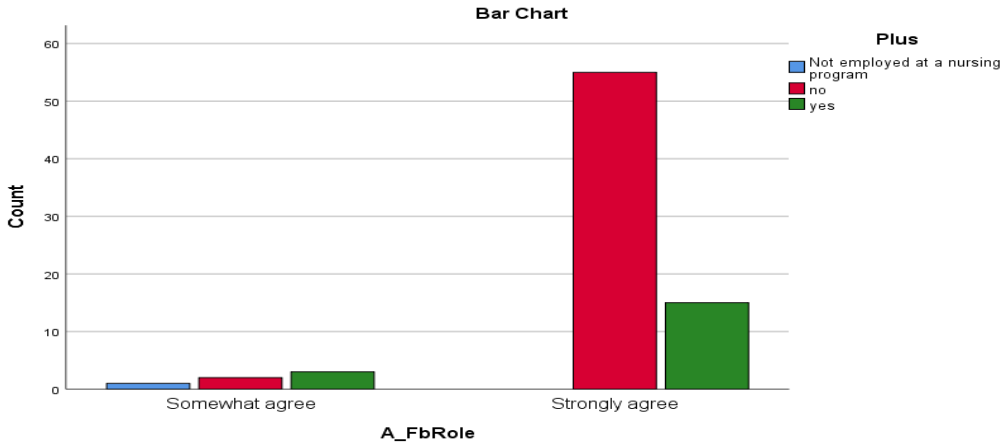
Teaching at More than One College of Nursing: Students do not attend to feedback



Teaching at More than One: Role. Crosstabulation between teaching at more than one university or college of nursing and role in providing feedback merely demonstrated that educators not teaching at this time differ in the degree of agreement from those that are teaching, whether full- or part-time. (See chart 4.4).

Chart 4.4

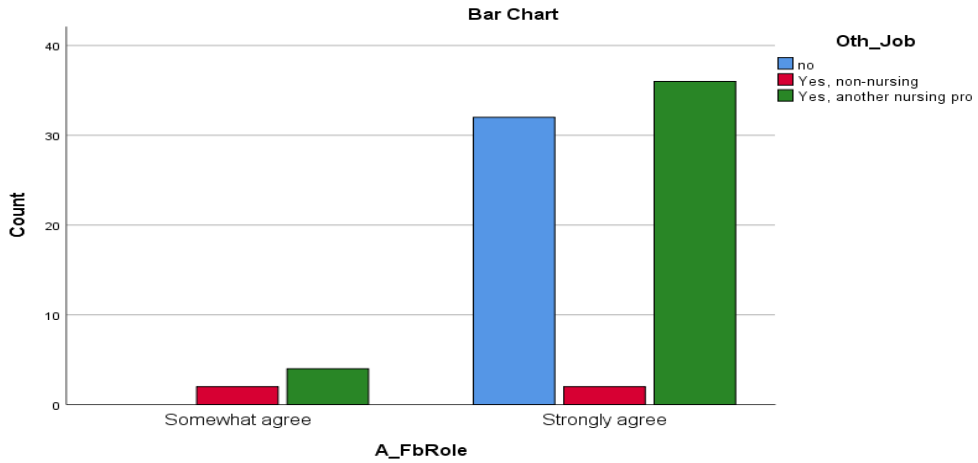
Teaching at More than One College of Nursing: Role



Working in Another Non-Teaching Job: Role. The group variable of working in another non-teaching job demonstrated significance in differences with the educator's role to provide feedback $x^2(2) = 12.57$, $p = 0.002$. Crosstabulations with working in another non-teaching job and role seemed to indicate a difference between those not working another position. The difference again was merely between somewhat agree and strongly agree, as the other categories were not selected. See Chart 4.5)

Chart 4.5

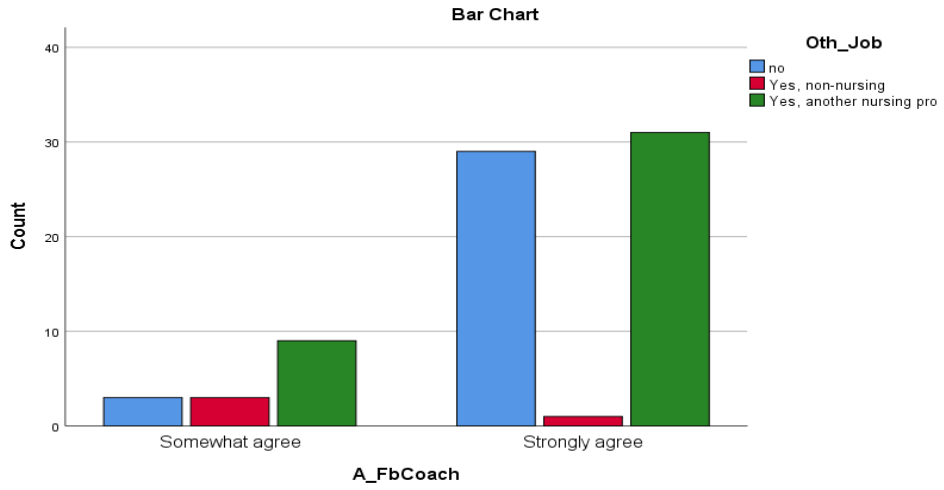
Another non-teaching job: Role



Working at Another Non-Teaching Job: Feedback Used for Coaching. The group variable of working in another non-teaching job demonstrated significance in differences with the attitude that identified feedback used for coaching $x^2(2) = 9.94$, $p = 0.007$. Crosstabulation of working in another non-teaching job and used for coaching seemed to indicate differences between somewhat agree and strongly agree, as the other categories were not selected. (See Chart 4.6)

Chart 4.6

Another non-teaching job: Coaching

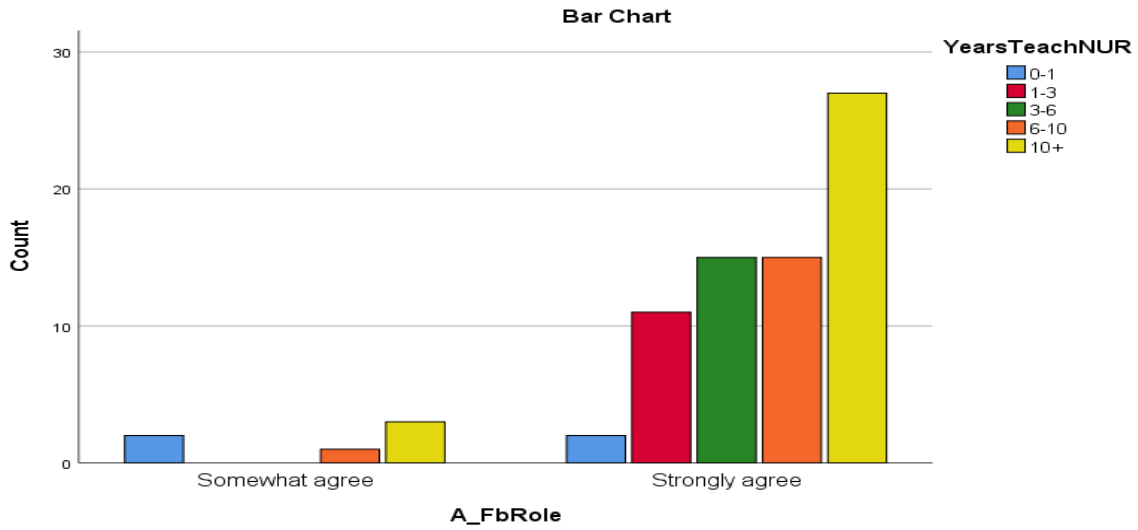


Experiences. There are three group variables associated with experiences that demonstrate an effect with some of the attitudes (1) years teaching, (2) designer of courses, and (3) method of learning how to give feedback.

Years Teaching in Nursing: Educator's Role. The group variable years teaching in nursing showed an effect with the perception of the educator's role in giving feedback $x^2(4) = 12.06, p = 0.017$. A comparison by crosstabulation between years teaching in nursing and the role in providing feedback indicated greater differences between 1-3 years and 3-6 years as to the degree of agreement, that is, somewhat agree and strongly agree. (See Chart 4.7).

Chart 4.7

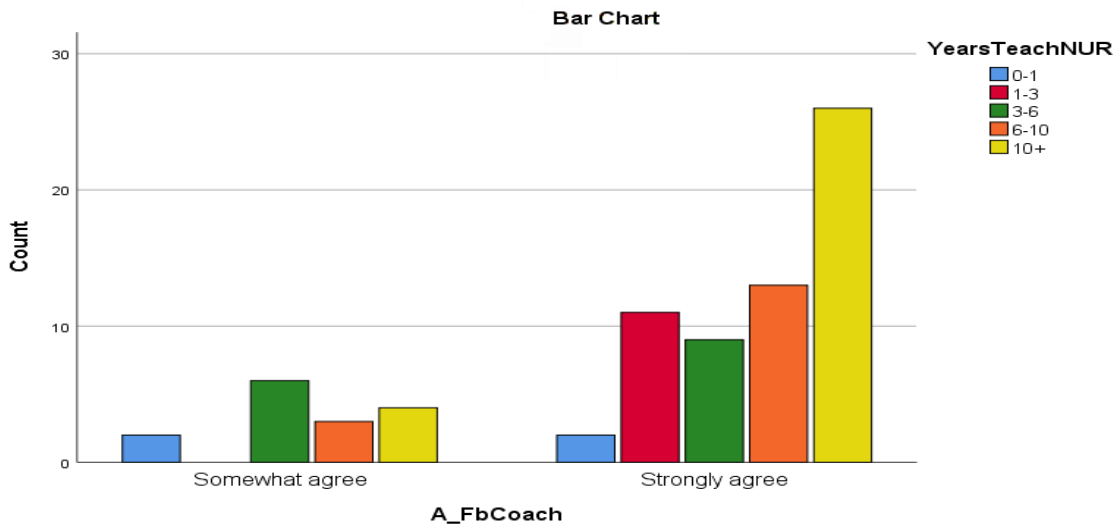
Years of Teaching in Nursing: Role



Years Teaching in Nursing: Feedback Used for Coaching. The number of years teaching also showed a difference with the perception that feedback is used for coaching $x^2(4) = 9.56$, $p = 0.048$. A comparison by crosstabulation between years of teaching in nursing and used for coaching demonstrated a difference of degree of agreement within most of the age-range categories. The grouping of those participants teaching 1-3 years all selected strongly agree, without any selecting somewhat agree. (See Chart 4.8)

Chart 4.8

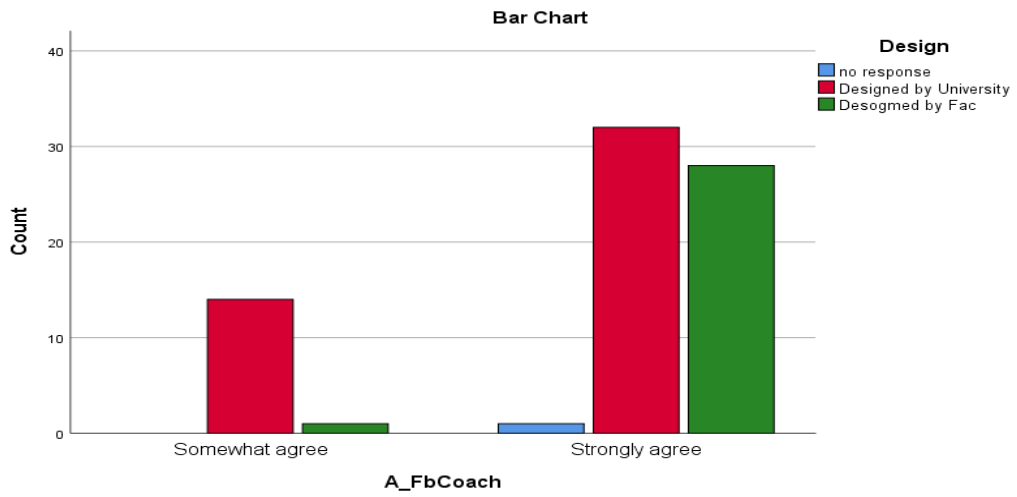
Years of Teaching in Nursing: Used for Coaching



Designer of Course: Feedback Used for Coaching. The group variable designer of course produced comparative differences between the perception that feedback is used for coaching x^2 *(1) = 7.99, p = 0.005*. In crosstabulation diagrams, the difference again appeared within two categories of strongly agree and somewhat agree. (See Chart 4.9).

Chart 4.9

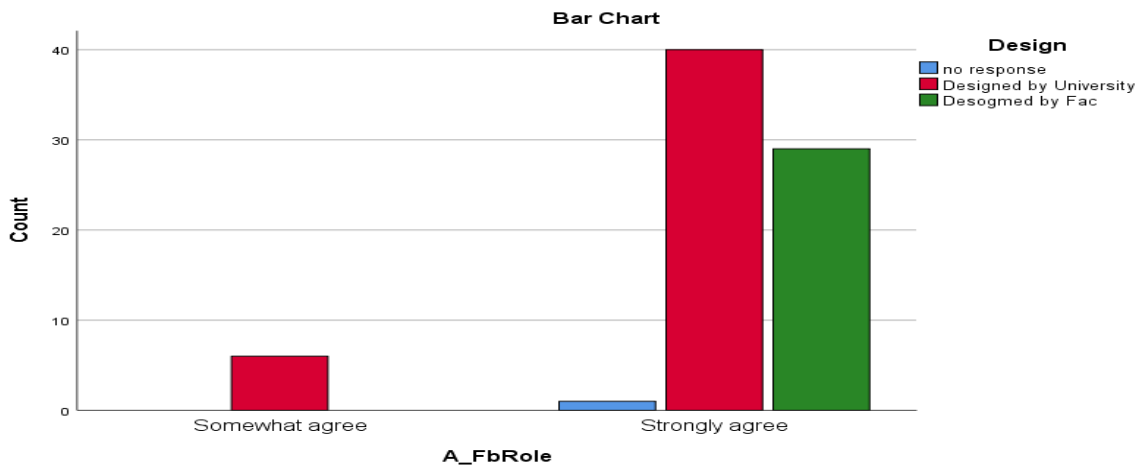
Design: Used for Coaching



Designer of Course: Educator's Role. The group variable designer of course produced comparative differences between the perception of the educator's role in providing feedback x^2 *(1) = 4.06, p = 0.044.* In crosstabulation diagrams, the difference again appeared within two categories of strongly agree and somewhat agree. (See Chart 4.10).

Chart 4.10

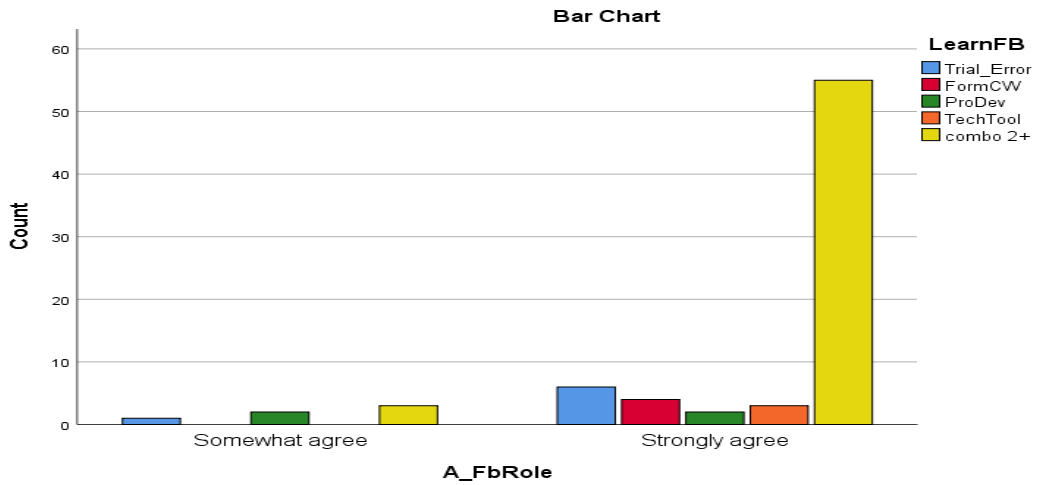
Design: Role



Strategies to Learn to Give Feedback: Educator's Role. The group variable methods learned to give feedback showed a significant difference with the attitude of role $x^2(4) = 11.19$, $p = 0.025$. Cross tabulations indicated possible differences with two categories, formal coursework and technical tools. However, the differences were merely between degrees of agreement. (See Chart 4.11)

Chart 4.11

Strategies to Learn to Give Feedback: Role



Differences of Tool Choices Based on Experiences, Education, Employment

The Kruskal-Wallis Testing comparing demographic categories and feedback tools revealed two findings that might indicate differences. The years teaching in nursing compared to checking and commenting on the rubric tested with a significant difference (x^2 (4) = 9.79, p *=0.044*). There was no significance with checking and commenting on the rubric when compared to years teaching online (*p = 0.945*). Yet when asynchronous tools is compared with years of teaching experience, teaching online was significant (p = 0.037) whereas teaching in nursing was not (p = 0.949). (Full data tables are available in Appendix G.4). Another finding of interest is the use of synchronous tools. Several group variables demonstrated differences when

compared, including: certification as a nurse educator, employment status, and who designed the online course. The impact may be the higher number who never or seldom use the tool, contrasted with those who do (see Table 4.9 *Differences of Tool Choice Based on Education, Employment, Experiences*).

Table 4.9

Differences of Tool Choice Based on Education, Employment, Experiences

	Kruskal-Wallis	df	*Asymp. Sig*
Years Teaching in nursing			
Checking and commenting rubric[a]	9.790	4	.044
Years Teaching Online			
Asynchronous tools[b]	10.187	4	.037
Education of teaching strategies			
Shared documents	6.794	1	.009
CNE			
Synchronized tools	5.060	1	.024
Phone text/chat	4.004	1	.045
Employment status			
Synchronized tools	6.679	2	.035
Designer of the online course			
Synchronous tools	5.974	1	.015
Method to learn feedback			
Inform expectations via rubric[a]	9.857	4	.043

[a]may be impacted by one no response
[b]may be impacted by 2 who did not respond to this tool item.

Differences of Characteristics of Feedback Based on Experiences, Education, Employment

Each of the key characteristics concepts (listed in Table 4.5d, Table 4.6, and Table 4.7) were operationalized with 2 or 3 variables as related to Types of Feedback (feed up, feed back, and feed forward); Levels of Feedback (task level, process level, and self-regulation level); and

formatting style. These variables were transformed into composites of target variables to represent each concept. Through SPSS, the *Transform* tool was used. The concept name was coded as the target variable and the medians were used to calculate. See *Table 4.10 Target Variables: Types of Feedback, Levels of Feedback, and Format Style* for visualization of how the target variables were formed.

Table 4.10

Target Variables: Types of Feedback, Levels of Feedback, and Format Style

Target Variable	Combined Variables	Ranges in Combined Variable		Median
		Minimum	Maximum	
Feed Up	Incorporates a plan for improvement.	1=Never	5=Always	4
	Feedback suggests resources to support achievement.	1=Never	5=Always	5
Feed Back	Feedback integrates the expected outcome or competency criteria.	1=Never	5=Always	5
	Feedback directs students to make connections between theory and practice.	1=Never	5=Always	4
Feed Forward	Feedback suggests alternative ideas of approaches for consideration.	1=Never	5=Always	4
	Feedback includes strategies that extend the expected learning outcomes.	1=Never	5=Always	4
Task Level	Feedback points out errors for correction	1=Never	5=Always	4
	Feedback is given about scholarly skills.	1=Never	5=Always	5
	Feedback acknowledges areas students performed well (Correctly).	1=Never	5=Always	5
Process Level	Feedback suggests alternative ideas or approaches for consideration	1=Never	5=Always	4

Target Variables: Types of Feedback, Levels of Feedback, and Format Style (Cont.)

Target Variable	Combined Variables	Ranges in Combined Variables		Median
		Minimum	Maximum	
Self-Regulation Level	Feedback encourages students to reflect about previous learning or strategies	1=Never	5=Always	4
	Feedback is given about professional standards of behavior.	1=Never	5=Always	4
	Feedback is given about communication.	1=Never	5=Always	4
Format Style	Feedback is not influenced by student's race, gender, or ethnicity.	1=Never	5=Always	5
	Feedback is clearly written in complete sentences.	1=Never	5=Always	4
	Feedback consistently uses nonjudgmental language.	1=Never	5=Always	5

Each of the composited target variables (test variables) were compared to individual variables (group variables) for nurse educators' experiences, education, and employment. Because of the large variation in locations for state of residency and employer, these variables were not compared.

There are only a few assumptive significances related to the target variables. Table 4.11 *Differences in Types, Levels, and Format of Feedback Based on Experiences, Education, Employment* indicates results of the variables testing with an assumptive significance of .05 or less. (See full data tables in Appendix G.4).

Table 4.11

Differences in Types, Levels, and Format of Feedback Based on Experiences, Education, Employment

	Kruskal-Wallis	df	Assumptive Sig (*p*)
Years teaching nursing			
Formatting Style	12.081	4	.017

Employment Status			
Task Level	6.697	2	.035
Method of learning to give FB			
Format Style	20.997	4	.000

Additional Comments by Participants

The survey invited respondents to share any additional comments with thoughts or practices about feedback. Twenty-one of the respondents left comments (See Appendix F *Additional Comments*. There were three comments that expressed support and encouragement for researching the topic. Two provided specific comments about the survey instrument, identifying areas for clarification. One respondent shared that participating in the survey "has given me some things to think about when I give feedback." Other comments centered on strategies and perspectives that respondents felt were not captured in the survey.

Additional Strategies

One respondent described using the feedback sandwich technique and complimenting students. Another indicated that feedback had to be positive and not negative. This respondent detailed a sample that demonstrated feedback directed to process and self-regulation levels and not at the self level. The respondent explained that suggestions for improvement would follow the comment.

Suggestions were made for particular situations with students. In situations where there are multiple or repetitive errors in a paper, the pattern of errors is pointed out in the comment with a request that the student identify remaining errors in the paper. Situations in which the nurse educators felt they had provided feedback and students had not responded to correct their

patterns of errors lead one to deduct points and another to reach out to the student by phone to clarify expectations.

There was an additional pattern of use of rubrics that was offered. “I always use check boxes when available. I often make comments with each aspect that has not earned the highest score. I always provide an overall comment.”

Additional Attitudes and Perspectives

Many comments provided affirmation and emphasis to concepts in the survey items such as the importance for giving feedback for student learning and development. Challenges were identified in general as giving feedback in the online environment, and specifically to managing frustrations with time spent providing feedback and student responses, identified knowledge gaps that need to be addressed, and students who seem to ignore feedback. Additional perspectives included an acknowledgment that students may not have school as a priority as they struggle with balancing work, family, and school; the influence of personal experiences as a previous RN-BSN student; and approaching feedback through the lens of addressing a respected colleague.

Summary

Chapter Four presented data and analysis of an online survey distributed to nurse educators teaching in online RN-BSN programs. Data collected and reported included experiences with teaching, education, and employment. Then, the survey questions focused on feedback. Findings included beliefs and attitudes toward the value of feedback, tools used and preferred, students, the role of the nurse educator, practice of giving feedback, and the use of feedback strategies. Tables and charts illustrated key data points. Discussion of the findings presented in Chapter Four will be presented in Chapter Five. Recommendations will follow.

Chapter 5: Discussion, Recommendations, and Conclusion

Introduction

This quantitative exploratory study was chosen to identify nurse educator beliefs and perspectives about giving feedback to students in online RN-BSN programs. The study sought to identify alignment of perceptions to those themes identified by other researchers in earlier studies. A sample of 76 nurse educators responded to an email invitation to participate in an online survey. Descriptive statistics and Kruskal-Wallis Tests were applied to results. This chapter is organized according to answers to research questions, Discussion and Implications, Limitations, Future Research, and Conclusions.

Research Questions

The study was designed to answer the research question:

What do nurse educators believe about feedback to students in online RN-BSN programs? There are seven sub-research questions (RQ) that will help to answer the overarching research question.

- RQ1 What degree of importance do nurse educators place on providing feedback to students in RN-BSN programs?
    - Nurse educators attributed a high degree of importance on providing feedback to students in RN-BSN programs.
- RQ2 Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs?
    - Nurse educators prefered to use shared documentation, asynchronous tools, such as discussion boards and announcements, and email to provide students with

feedback. Rubrics were the tools selected as most often used to inform students of expectations of assignments.

- RQ3 Which attitudes and beliefs do nurse educators hold regarding students and feedback?
    - Nurse educators strongly felt that students understand their feedback and that students are presented with clear explanation for their assignments.
    - There was also a representation among nurse educators of the following attitudes:
        - Students are emotionally invested
        - Students agree with my feedback
        - Students apply feedback to future assignments
        - Students are interested in how to improve.
    - There was a modest representation of attitudes that
        - Students do not attend to my feedback
        - Students are only interested in the grade
        - Students compare grades
- RQ4 Which attitudes and beliefs do nurse educators hold regarding their role and practice of feedback?
    - Role: Ninety-two percent of the nurse educators believed that providing feedback is a part of their role. Many tended to show beliefs that they are proficient in providing feedback and that they reflect on their teaching approaches based on student achievement.

    - Practice-Time: Most nurse educators believed that providing feedback is time consuming. Most also believed they have enough time to provide meaningful feedback, though there are a few who did not agree.
    - Practice – Use of feedback: Most nurse educators felt that feedback is used to coach students to achieve outcomes and that feedback is part of the grade. There was some feeling that feedback should only provide information about the current assignment and more uncertainty that grades provide rewards and punishment.
    - Practice-Formatting Style: Nurse educators held strong beliefs that the language used in feedback is non-judgmental and is not influenced by students' race, gender, or ethnicity. Most agreed that their feedback is written in complete sentences.
- RQ5 What strategies do nurse educators identify that feed up, feed back, and feed forward?
    - Nurse educators identified use of each of the strategies that feed up, feed back, and feed forward as always or most of the time.
- RQ6 What characteristics do nurse educators identify which address task, process, and self-regulation?
    - Nurse educators most strongly identified use of feedback characteristics associated with task level feedback. They identified use of feedback characteristics associated with process level and self-regulation level feedback as most of the time.
- RQ7 What are the differences between nurse educators' perceptions based on experiences, education, and employment status?

- There were a few instances (*n=9*) of differences between nurse educators' attitudes based on experiences with teaching and education and with employment status. Location was not compared.
- There were two tools used for feedback (commenting on rubrics and synchronous) that showed differences in use and preferences based on experiences, education, and employment. Other tools did not have significant relationships with experiences, education, and employment variables.
- There were also a few instances (*n=6*) of differences between types, level, and formatting of feedback based on nurse educators' experiences with teaching, education, and with employment status.

Discussion and Implications

Participants

The participants in this study were nurse educators who teach in online RN-BSN programs. A manual count revealed that 44 of the participants (57.9%) taught in nursing programs based in a different state than their state of residency. This has implications centered on license jurisdiction and, potentially the need of additional nursing licenses. For example, states that do not subscribe to the multistate licensure require nurse educators to be licensed in that state if they are teaching in that state, even from a remote location (National Council of State Boards of Nursing, 2018). This issue is not addressed in the study. The survey sample is too small to identify impact of location to perceptions of and practices of feedback.

The education and employment of the nurse educator may have an influence on perceptions about feedback. There were 40.8% of the respondents who indicated having an MSN degree. Adding the percentages of doctoral degrees, there were an additional 51.4% of the

respondents with doctoral degrees. Results indicated that many of the responding nurse educators were teaching full-time (60.5%). A considerable number of educators also worked in another nursing position (52.6%). Nurse educators who have a clinical degree, such as nurse practitioners, need to have clinical practice hours to maintain clinical licensure. Time split between teaching and working in their clinical setting may affect time-spent in providing feedback. There may also be a sample bias (Fowler, 2014) because of the affiliation of the nurse educators in the sample with Shadow Health. The health assessment program offered by Shadow Health is typically associated as a clinical experience in nursing education. Nurse educators with clinical degrees may have the preferred skill-set to be selected to teach this course. Any significant relationships to feedback strategies and practices are discussed under the final research question.

Teaching experiences and how nurse educators learned to provide feedback may also be an influencing factor. The median of years of teaching nursing was between 6-10 years, with the median of teaching online at 3-6 years. This is not an unusual finding as educators may start teaching in the face-to-face classroom or clinical settings before teaching online. A report from 73.7% of participants indicated that teaching strategies were included in their formal education. This is significant as McDonald (2007) identified, nurse educators may be chosen to teach because of clinical expertise and not for their training in teaching. Receiving formal instruction about teaching strategies may improve skills in providing feedback.

One survey item pursued this idea further by asking participants to identify methods they used to learn how to provide feedback. The literature described that teachers who have not been exposed to teaching and learning theory may discover effective teaching and learning strategies through trial and error and may not be aware of other approaches that could be applied (Bates,

2014; Coffey, Hammer, Levin, & Grant, 2011). The choices in the survey included trial and error, formal course work, professional development, technical tools, such as those in the online classroom, and a combination of at least two strategies. It is significant that 76.3% selected the choice of a combination of two or more of the listed choices. This may speak to the theme of ethical practice belief found by O'Flynn-Magee and Clauson (2013). Nurse educators who sought out multiple ways to learn how to provide feedback may be demonstrating those beliefs of ethical practice by following a framework of standards, using grading systems and tools, and demonstrating a commitment to consistency and objectivity. Motivating factors for nurse educators to use multiple ways of learning how to provide feedback were not explored in this study.

Nurse Educator Certification (CNE) is recorded at 23.7%. Certification as a nurse educator is not a requirement to teach in nursing. However, certification is an indicator of professionalism and expertise in the specialty field of nursing education (National League of Nursing, 2018). For example, skills in curriculum development and assessment are incorporated into the certification exam. Nurse educators who have passed this exam can be expected to have these skills, which may affect attitudes and practices with feedback.

In this study, 38.2% of the participants indicated that they design their own online course. The risk of misunderstanding content and assessment strategies may be higher in courses that are designed by others. Ramaprasad (1983) identified the concept of feedback error which occurs from faulty reasoning. In education, faulty reasoning opportunities may come from any part of the course design process. Instructor self-design may produce error if course design is developed with inaccurate choices of evidence, invalid expected outcomes, or ineffective teaching strategies. Instructors following pre-designed courses may not understand the embedded

strategies or content. The determination of degree of feedback error related to course development is beyond the scope of this study. However, self-design may affect tool use and tool preferences. The implication related to course development is to provide faculty with professional development opportunities, according to skill-development need. Faculty teaching pre-developed courses could be introduced to the curriculum as well as the established outcomes in the assigned online course and degree program. Faculty developing courses need skills in curriculum mapping, teaching strategies, and assessment design.

Value of Feedback

Hattie and Zierer (2018) reported that feedback is a powerful influence in learning. The nurse educator perception of value towards feedback was addressed by two survey items. These asked about the degree of importance of feedback for student learning and for student success. One hundred percent of the respondents indicated feedback was extremely important or very important for both student learning and student success. This finding strongly supports similar findings from O'Flynn-Magee & Clauson (2013) and Bonnel & Boehm (2011) where faculty reported value of feedback for student learning and success. The implication is that there may be more investment in providing meaningful feedback because it is highly valued.

Feedback Tools

There are many technology tools that are available and can be leveraged to provide feedback in online courses. Results from this study support that nurse educators tend to select more traditional types of technology, such as document sharing, email, asynchronous discussions and announcements, as well as rubrics. There is little representation of other tools such as those discussed by Bonnel and Boehm (2011). Previous thought may have been that these creative innovations (voice-over PowerPoint, synchronous meeting spaces, video messaging, and audio

files and others) would be adopted to enhance communication of feedback. These study results do not support Bonnel and Boehm's (2011) suggestions.

Kruskal-Wallis tests to compare nurse educators' education, teaching experiences, and employment status showed one significant relationship between number of years teaching in nursing and the patterns of commenting on the rubric. The item of synchronized tools was discovered to have relationships to several items. There were results of significance associated to Certification as Nurse Educator (CNE), employment status, and who designed the online course. It is also significant that 50% of the respondents indicated that they never use synchronous tools. There may be a connection not discovered in this analysis to account for the differences associated with synchronized tools. Use of rubrics and synchronous tools may be areas for faculty development.

Attitudes Toward Students and Feedback

The study sought to identify the frequency of attitudes among nurse educators that may contribute to feedback given to students. There are several sources from educational literature that express a connection between attitudes and quality of feedback. Greasley and Cassidy (2010) purported that even with use of rubrics to help provide consistency with grading, personal preferences and attitudes may still have negative or positive impacts on student grading. Mann (1996) asserted faculty need to self-reflect on attitudes and work toward a respect for student's work. Hattie and Zierer (2018) addressed there is an impact on student learning according to how teachers think about what they do. Faculty who share opinions expressed by Schuman (2013), such as eliminating essay-writing because students will cheat, students ignore feedback, and students do not wish to improve their writing, may not spend time on providing meaningful feedback. O'Flynn-Magee and Clauson (2013) expressed another perspective with nurse

educators in which ethical practices in grading were valued as expressed through clear expectations and striving for student understanding.

Attitudes toward students tended to lean towards agreement that students understood their feedback and students have clear expectations. Hattie and Zierer (2018) indicated when the expectations are set higher, the outcomes are likely to be higher. Low expectations will likewise be successful at producing low outcomes. A majority of nurse educators agreed that students are interested in learning how to improve, students agree with teacher feedback, and that students apply the feedback to future assignments. These findings align with themes identified by O'Flynn-Magee and Clauson (2013). Supportive attitudes towards students, may promote positive learning environments. The negative-type opinions shared by Shuman (2013) are not supported with this data. Implications are that if nurse educators believe students will be successful, they will.

Additional comments expressed attitudes which acknowledged students may be juggling work, family, and school and may not have school as a priority. Another concept that was presented included an approach to providing feedback made through the lens of addressing a respected colleague. These comments support Mann's (1996) assertation to self-examine attitudes and work towards an attitude that respects student's work.

Time is another associated attitude that was identified in the literature. The study results supported a feeling that providing meaningful feedback is time-consuming which agrees with findings by others (Bonnel and Boehm, 2011; Greasley & Cassidy, 2010; Troxler, Jacobson, & Oermann, 2011). Additional comments in the study included expressing frustration from spending time on giving feedback that is then, ignored by students. Findings also indicated that a majority of nurse educators believed they had enough time to give feedback. This would support

Bonnel and Boehm's (2011) indication that nurse educators apply strategies to maximize time for giving feedback and grading.

Attitudes About Role and Practice

There was a very strong finding that nurse educators believed providing feedback is part of their role and that they felt they are proficient at providing feedback to their students. Troxler et al. (2011) wrote about the skill levels of nurse educators in curriculum and assessment affecting the quality of feedback in evaluating student writing. This finding indicated that this group of nurse educators administer high-quality feedback if their perceptions of practice match their practice. This has implications to assess beliefs about practice with practice results.

Findings also suggested that these nurse educators are aware of reflecting on their teaching strategies based on the student achievement in the assignment. Hattie (2009) wrote about the concern that faculty do not reflect on student performance as feedback for them to consider modifications on teaching strategies. The data does not support Hattie's concerns from 2009.

Hattie and Zierer (2018) extended the thought of reflecting on teaching strategies in response to student performance. Often, blame is placed on students for not attending, or not following through with the feedback. A finding in the additional comments indicated that adaptive strategies were applied by two of the nurse educators with students who did not respond to feedback. These were implied as suggestions for change. One strategy was to not repeat the feedback and take points off as the intervention, which does not align with recent recommendations. Hattie and Zierer (2018) claimed that teachers need to acknowledge that the intervention was not successful for student learning and there is a need to change the strategy.

However, the change must align with student learning needs and not simply be a change. The data suggested this is an area that could be more deeply explored.

Application of Feedback Strategies

This section discusses the finding that nurse educators often identify strategies that feed up, feed back, and feed forward. These three strategies are identified as part of Hattie's (2009) model of feedback and previously discussed. Variability in the use of feedback among educators has been linked to the educator's understanding of leveraging strategies (and characteristics) of feedback to promote learning (Hattie & Zierer, 2018). There was a strong agreement in the practice perceptions of using feedback as coaching. Other attitudes towards use of feedback tended towards agreement for feedback as part of the grade, grades are rewards and punishments, and feedback should only provide information for the current assignment. However, there were more variances among the level of agreement within these attitudes with selections made of strongly disagree, somewhat disagree, and neither agree or disagree.

Hattie and Zierer (2018) explained that feed up and feed back strategies are used more often than feed forward strategies, however, feed forward information is more desired. The data supported more frequent use of feed up and feed back strategies. Implications are that understanding the strategies and intent for using feedback to influence learning will lead to stronger learning outcomes for students. As Hattie and Zierer (2018) charged, feed forward strategies need to be incorporated into feedback to support students to move to the next level of learning.

Application of Feedback Characteristics (Levels)

Nurse educators most strongly identified task level feedback. They often identified process level and self-regulation level feedback. These findings support literature addressing

performance-based feedback (Hattie, 2009; Hattie & Zierer, 2018). According to Hattie and Zierer (2018), learners receive task and process level feedback more often than self-regulation feedback. Similar to feed forward, self-regulation characteristics of feedback are more desired. Hattie and Zierer (2018) explained that effective feedback not only identifies errors made but adds information from the process and self-regulatory levels. Implications are similar to those mentioned in feedback strategies; understanding how to leverage these characteristics to maximize learning opportunities would improve learning outcomes.

Not measured in this study was feedback that addresses the self level. This type of feedback is frequently given, is directed towards the person, and is often represented by praise. However, it does little to support the learning process (Hattie, 2009). Hattie and Zierer (2018) discussed that self feedback is a distraction to any feedback about the work. Self feedback is appropriate when it is not mixed (Hattie & Zierer, 2018). Additional comments from this study included reference to self level feedback with use of the feedback sandwich and compliments. Another finding was to provide feedback that was positive. However, the example represents feedback that addresses process and self-regulation and not praise. Implications indicate there may be gaps in understanding how to utilize the characteristics of feedback to leverage opportunities for learning.

Consistencies of Perceptions with Attitudes

Overall, there was a strong consistency for perceptions between attitudes of nurse educators regardless of teaching experiences, education, and employment. An attitude that is influenced by several factors included the nurse educators' perception of their role to provide feedback. According to the Kruskal-Wallis testing, there is a statistical significance between role perception and to teaching experiences (years teaching in nursing, teaching at more than one

college, & learned how to provide feedback) and to work experiences (another non-teaching position & designer of online course). Whereas 92.1% of respondents strongly agreed that providing feedback to students is part of their role, there were a few that selected somewhat agree. Therefore, all have at least some agreement that feedback is part of the role of a nurse educator. The difference may be related to a small number of the respondents. It is possible that the survey item related to role is not clear and was misunderstood.

Another attitude of interest is that feedback is used for coaching. There are differences related to years teaching in nursing, working in another non-teaching position, and designer of online course. It is important to note that these differences were between categories of strongly agree and somewhat agree. It is possible that the difference is associated with another factor. Benner et al. (2010) identified coaching as one of the actions needed to transform nursing education.

Perceptions of time related to feedback shared differences with employment status for both attitudes of feedback being time-consuming as well as having enough time to provide feedback. Time-consuming also had a significant relationship to the perception of education that included teaching strategies. Employment status showed a difference in believing there is enough time allotted to give feedback. The difference seems to align with those who work part-time and those who work full-time. The issue of time was also a theme repeated in the additional comments. An element of frustration was expressed when time spent to provide feedback that seemed to be ignored by students. More questions about time and how nurse educators strategize to manage their time might add to our understanding.

Other attitudes showing differences in groups include the attitude that students do not attend to feedback with teaching at more than one college of nursing. Therefore, there is

evidence to suggest formal education of teaching strategies, employment status and work experiences, as well as experiences with teaching may influence attitudes concerning students, feedback, and role and practice of providing feedback.

Consistencies of Perceptions with Use of Feedback Strategies and Characteristics

There are three group variables that revealed significance related to three of the feedback strategies. Years teaching nursing and method of learning to give feedback showed differences with formatting style. Formatting style included the characteristics of non-judgmental and no biased language, plus use of clear and complete sentences. The difference with years of teaching appeared more strongly linked to using complete sentences. Then, nurses who learned to give feedback in more than one method, tended to represent more positive formatting style.

Employment status demonstrated a difference with task level feedback. The difference may represent the nurse educators who indicated that they are not currently employed in nursing (*n = 4;* See frequency tables in *Appendix G.1*). There was also a difference between full- and part-time groups as part-time nurse educators tended towards providing more task-level feedback.

Limitations

Study limitations include a survey instrument developed by a novice researcher. Potential areas of misconceptions were evident in some of the responses, missing data, and additional comments. For example, there may have been some misconceptions with the designation of years in teaching, as the parameters overlapped (0-3, 3-6, 6-10, 10+). Three of the additional comments focused on the survey instrument. One indicated an item that did not have a choice option the respondent would have chosen. Another shared that the question about location was

difficult to answer and yet another shared that one question was confusing (and did not indicate which one.)

There is potential that the coding of some of the data may influence the results. For example, composite variables were formed, combining two or more variables to represent a concept. There may be gaps with the variables used in constructing the composite variables. Incomplete constructs of the composite variables may factor different responses than more complete constructs, if available.

An additional limitation was the inability to verify comments added by respondents. Furthermore, there is a high potential of survey bias, as the invitations were sent through a data base connected to a particular type nursing course. Care must be taken so as to not interpret findings from the study as applicable to all nurse educators teaching in RN-BSN programs.

Recommendations

There are seven recommendations based on the findings.

1. This study supports the need for faculty development related to understanding intentions of feedback for learning outcomes and how to apply the strategies and characteristics of feedback to maximize learning. Since this study was designed, Hattie and Zierer (2018) expanded the concept of being mindful to reflect on teaching strategies based on student achievement. The implication is that as teachers understand how to apply feedback about student performance to self-reflect on teaching practices, they can leverage strategies to improve student learning outcomes. Further research targeting how faculty self-reflect may bring more insight into teaching practices being applied in nursing programs.
2. Further research on the survey instrument is indicated to assess validity and reliability.

3. After modifications and field testing, individual schools of nursing might be interested in distributing the survey to their nurse educators to inform specific areas of faculty development.
4. Nurse educators from this study believed they are proficient at providing feedback. Further research on proficiency at providing feedback, including assessing perception and testing practice would add to what we know about feedback. A different sample that does not focus on a specific type of nursing course may yield different results. `
5. Although several studies have been done with a student perspective of feedback, an updated study may be worth considering that considers comparing student and educator perspectives.
6. This study would be of interest to those who wish to understand principles of providing feedback and for leaders in nursing education to consider foci of professional development for faculty.
7. One of the surprise findings was the number of respondents who have had formal education about teaching strategies. This may represent a change in nursing curriculum for graduate programs. Work toward assuring teaching strategies are included in formal coursework for educators should continue.

Conclusion

This reasearch attempted to provide a deeper understanding of the believed and perceived practices of nurse educators giving feedback to online RN-BSN students. This research identified preferred tools nurse educators choose for giving feedback and explored attitudes related to students and feedback and to perceived practices of giving feedback. It also explored differences in beliefs and perceived practices based on experiences with teaching and employment status.

The principle question was: What do nurse educators believe about feedback to students in online RN-BSN programs? To answer this question, several questions were asked and answered. Nurse educators believed feedback is important for student learning and success. Nurse educators tended to use traditional technology tools, such as document sharing, asynchronous tools such as discussion boards and announcements, and email. There are a few who use other tools that were marked as never used by the majority. Nurse educators use rubrics and comments to provide feedback to their students. The methods applied to these tools are varied among them. Most nurse educators in this research tended to believe most students are interested and invested. Nurse educators believed they are responsible to provide feedback to their students, believed they are proficient at giving feedback in the online environment, and reflected on their teaching strategies. Furthermore, they believed students have clear expectations for assignments and students understand their feedback. Many indicated they frequently apply effective feedback strategies.

The information gathered suggested there has been movement to improve feedback practices in nursing education. Faculty development centered on strengthening feedback strategies and use of supportive technology will contribute to further improvements in feedback practices and help to develop nurses to thrive within complex health care environments. As Hattie (2009) shared, feedback is a powerful influence in educational learning environments. May we continue to master the art of giving and receiving feedback and be instrumental in transforming the lives of our students. As one student recently shared in a course review, “She [the instructor] made a lasting impact and influence on my life” (unidentified student, 2018, March). How awesome for nurse educators to have a transformational impact on nursing students!

References

Agius, N. M. & Wilkinson, A. (2013). Students' and teachers' views of written feedback at undergraduate level: A literature review. *Nurse Education Today, 34*(2014), 552–559. DOI: http://dx.doi.org/10.1016/j.nedt.2013.07.005

Anderson, L., Nightingale, P., Boud, D., & Magin, D. (Eds.). (1993). Strategies for assessing students: A guide to setting, marking, grading, and fiving feedback on assignments, tests, and examinations. *SEDA publications*. Standing conference on Educational Development., Birmingham England.

Bagwandeen, C. I. & Singaram, V.S. (2016). Feedback as a means to improve clinical competencies: Consultants' perceptions of the quality of feedback given to registrars. African Journal of Health Professions Education, 8(1; Suppl 1), 113-116. DOI: 10.7196/AJHPE.2016.v811.758

Baldwin, B.T. (1911). William James' contributions to education. *Journal of Educational Psychology, 2*(7), 369-382. DOI: http://dx.doi.org/10.1037/h0073687

Bailey, R. & Garner, R. (2010). Is the feedback in higher education assessment worth the paper it is written on? Teachers' reflections on their practices. *Teaching in Higher Education, 15*(2), 187-198. DOI: 10.1080/13562511003620019

Bangert, A. W. (2005). The seven principles of effective teaching: A framework for designing, delivering, and evaluating an Internet-based assessment course for nurse educators. Nurse Educator, 30(5), 221-225. PMID 16170265

Bates, A. W. (2014). Teaching in a digital age: Guidelines for designing teaching and learning. [Online text]. BC Open Textbooks. Available from https://opentextbc.ca/teachinginadigitalage/

Benner, P., Sutphen, M., Leonard, V. & Day, L. (2010). *Educating nurses: A call for radical transformation.* San Francisco, CA: Jossey-Bass.

Bloomberg, L. D., & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end.* Los Angeles, CA: Sage.

Blair, A., Curtis, S., Goodwin, M., & Shields, S. (2013). Learning and teaching in politics and international studies: What feedback do students want? *Politics, 33*(1), 66-79. DOI: 10.1111/j.1467-9256.2012.01446.x

Bonnel, W. & Boehm, H. (2011). Improving feedback to students in online courses: Teaching tips from experienced faculty. *Journal of Continuing Education in Nursing, 42*(11), 503-509. DOI: 10.3928/00220124-20110715-02

Bose, J. & Rengel, Z. (2009). A model formative assessment strategy to promote student-centered self-regulation learning in higher education. *US-China Education Review, 6*(12). 29-35. Retrieved from http://files.eric.ed.gov/fulltext/ED511170.pdf

Belludi, N. (2008, Feb. 22). The compliment sandwich feedback technique is ineffective. [RSS: Right attitudes: Ideas for impact]. Retrieved from http://www.rightattitudes.com/2008/02/22/sandwich-feedback-technique-ineffective/

Careless, D., Salter, D. Yang, M., & Lam, J. (2010). Developing sustainable feedback practices. *Studies in Higher Education, 36*(4), 395-407. DOI: 10.1080/03075071003642449

Carifio, J. & Perla, R. J. (2007). Ten common misunderstandings, misconceptions, persistent myths and urban legends about Likert scales and Likert response formats and their antidotes. *Journal of Social Sciences, 3*(3), 106-116. Retrieved from http://thescipub.com/PDF/jssp.2007.106.116.pdf

Chanock, K. (2000). Comments on essays: Do students understand what tutors write? *Teaching in Higher Education, 5*(1), 95–105. DOI: 10.1080/135625100114984

Coffey, J. E., Hammer, D., Levin, D. M., & Grant, T. (2011). The missing disciplinary substance of formative assessment. *Journal of Research in Science Teaching, 48*(10), 1109-1136. DOI:10.1002/tea.20440

Committee on Education of the National League of Nursing Education. (1919). *Standard curriculum for schools of nursing.* [Digitized version, 2007]. Baltimore, MD: The Waverly Press. Retrieved from https://archive.org/stream/standardcurricul00natiiala#page/n3/mode/2up

Dekker, H., Shonrock-Adema, J., Snoek, J. W., van der Molen, T., & Cohen-Schotanus, J. (2013). Which characteristics of written feedback are perceived as stimulating students' reflective competence: An exploratory study. *BMC Medical Education, 13*(94). DOI: 10.1186/1472-6920-13-94 (http://www.biomedcentral.com/1472-6920/13/94)

Dewey, J. (1916; 1944). *Democracy and education: An introduction to the philosophy of education*. New York, NY: The Free Press.

Docheff, D. M. (1990). The feedback sandwich. *Journal of Physical Education, Recreation, & Dance, 61*(9), 17-18. DOI: 10.1080/07303084

Dohrenwend, A. (2002). Serving up the feedback sandwich. *Family Practice Management, 9(10), 43-46.* Retrieved from http://www.aafp.org/fpm/2002/1100/p43.html

Draco-Severson, E. & Bloom-Distefano, J. (2016). *Tell me so I can hear you: A developmental approach to feedback for educators.* Cambridge, MA: Harvard Education Press.

Driefuerst, K. T. (2009). The essentials of debriefing in simulation learning: A concept analysis. *Nursing Education Perspectives, 30*(2). 109-104. PMID 19476076

Dreifuerst, K. T. (2015, May). Getting started with debriefing for meaningful learning. *Clinical Simulation in Nursing, 11*(5), 268-275. http://dx.doi.org/10.1016/j.ecns.2015.01.005.

Ecclestone, K. (2010). *Transforming Formative Assessment in Post-compulsory Education*. Maidenhead: McGraw-Hill Education.

Elbow, P. (1997). Grading student writing: Making it simpler, fairer, clearer. In Sorcinelli, M. D., & Elbow, P. (Eds.). (1997). Writing to learn: Strategies for assigning and responding to writing across the disciplines. *New Directions for Teaching and Learning, 69*, 127-140. San Francisco, CA: Jossey-Bass.

Evans, C. (2013). Making sense of assessment feedback in higher education. *Review of Educational Research, 83*(1), 70-120. DOI: 10.3102/0034654312474350

Finkelson, S. R. & Fishbach, A. (2012). Tell me what I did wrong: Experts seek and respond to negative feedback. *Journal of Consumer Research, 39*(1), 22-38. DOI: http://dx.doi.org/10.1086/661934

Fisher, D & Frey, N. (2009). Feed up, back, forward. *Educational leadership 67*(3). 20-25. ERIC EJ868281 http://www.ascd.org/ASCD/pdf/journals/ed_lead/el200911_fisher.pdf

Fowler, F. L. (2014). *Survey research methods*. Thousand Oaks, CA: Sage.

Fowler, M. D. M. (ed) (2008). *Guide to the code of ethics for nurses: Interpretation and application.* [American Nurses Association]. Silver Spring, MD: American Nurses Association.

Frey, C. A. (2009). Teachers' understanding and use of formative assessment strategies: A multiple embedded case study in K-12 urban ring schools of a mid-size city in Rhode Island. [Dissertation]. ERIC ED513231

Gardner, F. P. & Abraham, G. W. (1978) A Grading Procedure for Student Writing. *Teaching Sociology*, *6*(1), 31-35. Article stable URL: http://www.jstor.org/stable/1317163

Gee, T. C. (1972). Students' responses to teacher comments. *Research in the Teaching of English, 6*(2), 212-221. Stable URL: http://www.jstor.org/stable/40170807

Gibbins, K. (2011). Are current feedback methods optimal for student understanding and learning? [Professional Development]. *Journal of Paramedic Practice, 3*(3), 136-141. CIBAHL Complete 104863496

Giles, T. M., Gilbert, S., & McNeil, L (2014). Nursing students' perceptions regarding the amount and type of written feedback required to enhance their learning. *Journal of Nursing Education, 53*(1), 23-32. DOI: 10.3928/01484834-20131209-02

Glover, P. A. (2000). 'Feedback. I listened, reflected and utilized': Third year nursing students' perceptions and use of feedback in the clinical setting. *International Journal of Nursing Practice, 6*(5), 247-252. DOI: https://doi.org/10.1046/j.1440-172x.2000.00218.x

Greasley, P. & Cassidy, A. (2010). When it comes round to marking assignments: How to impress and how to "distress" lecturers. *Assessment & Evaluation in Higher Education, 35*(2), 173-189. DOI: 10.1080/02602930802691564.

Green, J. L. (1968). A method for writing comments on student themes. *The English Journal*, *57*(2), 215-220. DOI: 10.2307/811881

Green, S. B., & Salkind, N. J. (2014). Using SPSS for Windows and Macintosh: Analyzing and understanding data. (7th edition). Boston, MA: Pearson.

Hattie, J. (2009). *Visual learning: A synthesis of over 800 meta-analyses relating to achievement.* New York, NY: Routledge.

Hattie, J. (2011). Visible learning, part 2: Effective Methods. [Video]. Retrieved from YouTube.com/watch?v=3pDUDFTNQF4

Hattie, J. (2012). Know thy impact. *Educational Leadership, 70*(1), 18-23. http://www.ascd.org/publications/educational-leadership/sept12/vol70/num01/Know-Thy-Impact.aspx

Hattie, J. & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81-112 DOI: 10.3102/003465430298487

Hattie, J., & Zierer, K. (2018). 10 Mindframes for visible learning: Teaching for success. New York, NY: Routledge.

Higgins, R., Hartley, P., & Skelton, A. (2002). The conscientious consumer: Reconsidering the role of assessment feedback in student learning. *Studies in Higher Education, 27* (1), 53–64. DOI: https://doi.org/10.1080/03075070120099368

Hodges, E. (2002). Negotiating the margins: Some principles for responding to our student's writing, some strategies for helping students read our comments. *New Directions for Teaching and Learning, 1997*(69), 77-89. ERIC EJ539560

Hurlock, E. B. (1925). An evaluation of certain incentives used in school work. *Journal of Educational Psychology*, *16*(3), 145-159. DOI: 10.1037/h0067716

Ilgen, D. R. & Davis, C. (2000). Bearing bad news: Reactions to negative performance. *Applied Psychology, 49*(3), 550-565. DOI: 10.1111/1464-0597.00031

Land, R.E., & Evans, S. (1987). Classroom inquiry: What our students taught us about paper marking. *The English Journal*, *76*(2), 113-116. DOI: 10.2307/818189

Lauber, D. (2011, Sept. 15). Feedback sandwich: Delivering negative feedback. *Lightbox Leadership.* Retrieved from http://lightboxleadership.com/feedback-sandwich-delivering-negative-feedback/

Lee, I. (2013). Research into practice: Written corrective feedback. *Language Teaching, 46*(1), 108-119. DOI:10.1017/S0261444812000390

Leech, N. L., Barrett, K. C., & Morgan, G. A. (2015). IBM SPSS for intermediate statistics: Use and interpretation. (5th edition). New York, NY: Routledge.

Luchins, A. S. & Luchins, E. H. (1946). Towards intrinsic methods in testing. *Journal of Educational Psychology, 37*(3), 142-148. http://dx.doi.org.ezproxy.snhu.edu/10.1037/h0055590

Lutkenhouse, K. (1975). The effects of grades and teacher comments on student performance. (Order No. EP10912, Kean University). ProQuest Dissertations and Theses, 1-50 (302803352).

Lutz, E. (1989). Classification of teacher written comments on student assignments. *Journal of Nursing Education, 28*(5), 227-229. ProQuest Central (1026693500)

Mann, S. A. (1996). Respect: Improving student writing. *Nurse Educator, 21*(4), 34-36. Ovid (62446)

Mariani, B., Cantrell, M.A., & Meakim, C. (2014). Nurse educators; perceptions about structured debriefing in clinical simulation. *Nursing Education Perspectives. 35*(3), 330-331. DOI: 10.5489/13-1190.1

McDonald, M. E. (2007). *The nurse educator's guide to assessing learning outcomes*. (2nd Ed.). Sudbury, MA: Jones and Bartlett.

McKimm, J. (2009). Giving effective feedback. *British Journal of Hospital Medicine, 70*(3), 158-161. Available from http://faculty.londondeanery.ac.uk/other-resources

McMillan, J. H. (2007). Formative classroom assessment: The key to improving student success. (Chapter 1) in McMillan, J.H. (Ed.). (2007). *Formative classroom assessment*. New York, NY: Teachers College Press.

Mulcahy, K. F. (1993). Research on written composition: Implications for business communication. *The Bulletin,* pp. 22-25. ERIC EJ459227

National Council of State Boards of Nursing. (2015). 2015 NCLEX Candidate bulletin. Retrieved from https://www.ncsbn.org/nclex.htm

National Council State Boards of Nursing. (2018). Prelicensure distance education requirements. Retrieved from https://www.ncsbn.org/671.htm

National League of Nursing. (2018). Certification for nurse educators (CNE). Retrieved from http://nln.org/professional-development-programs/Certification-for-Nurse-Educators

New Hampshire Board of Nursing. (2018). RN-BSN programs. Retrieved from https://www.oplc.nh.gov/nursing/rn-bsn-programs.htm

Oermann, M. H., Saewert, K. J., Charasika, M., & Yarbrough, S. S. (2008). Assessment and grading practices in schools of nursing: National survey findings part 1. *Nursing Education Perspectives, 30*(5), 274-278. ProQuest (236585331)

O'Flynn-Magee, K., & Clauson, M. (2013). Uncovering nurse educators' beliefs and values about grading academic papers: Guidelines for best practices. *Journal of Nursing Education, 52*(9), 492-499. doi: http://dx.doi.org/10.3928/01484834-20130819-01

Ovando, M. N. (1994). Constructive feedback: A key to successful teaching and learning. International *Journal of Educational Management, 8*(6), 19-22. DOI: http://dx.doi.org/10.1108/09513549410069185

Pagano, N., Bernhardt, S. A., Reynolds, D., Williams, M., & McCurrie, M. K. (2008). An inter-institutional model for college writing assessment. *College Composition and Communication, 60*(2). 285 – 320. ProQuest Central. 220712078

Page, E. (1958). Teacher comments and student performance: A seventy-four classroom experiment in school motivation. *Journal of Educational Psychology*, *49*(4), 173-181. DOI: 10.1037/h0041940

Ramaprasad, A. (1983). On the definition of feedback. *Behavioral Science, 28*(1). 4-13. doi: http://dx.doi.org/10.1002/bs.3830280103

Reynolds, D. (2015). Variability of passing grades in undergraduate nursing education programs in New York State. *Nursing Education Perspectives, 36*(4), 232-236. doi: http://dx.doi.org/10.5480/13-1235

Ritchart, R., Church, M., & Morrison, K. (2013). *Making thinking visible: How to promote engagement, understanding, and independence for all learners*. San Francisco, CA: Jossey-Bass.

Setzler, L. (2009, June 30). Criticism vs feedback – Which one wins, hands down? (Part 2). [Blog: Evolution of the self]. *Psychology Today*. https://www.psychologytoday.com/blog/evolution-the-self/200906/criticism-vs-feedback-which-one-wins-hands-down-part-2

Schwarz, R. (2013, April 19). The “sandwich approach” undermines your feedback. [Giving Feedback]. *Harvard Business Review*. Retrieved from https://hbr.org/2013/04/the-sandwich-approach-undermin

Schuman, R. (2013, December 13). The end of the college essay: An essay. *Slate*. Retrieved from http://www.slate.com/articles/life/education/2013/12/college_papers_students_hate_writing_them_professors_hate_grading_them_let.html

Shadow Health. (2015). Join more than 1,000 partner programs worldwide. Retrieved from https://shadowhealth.com/partner-schools.html

Sorcinelli, M. D., & Elbow, P. (Eds.). (1997). Writing to learn: Strategies for assigning and responding to writing across the disciplines. *New Directions for Teaching and Learning, 69*, 27-39. San Francisco, CA: Jossey-Bass.

St Angelo, S. (2017, April 8). The space to change nursing education & research: Building plans make room for the future. [Editorial feature]. *Johns Hopkins Nursing*. Retrieved from http://magazine.nursing.jhu.edu/2017/04/the-space-to-change-nursing-education-research/

Stevens, K. P., & Nies, M. A. (2018). Transforming nursing education in a 140-character world: The efficacy of becoming social. *Journal of Professional Nursing, 34*(1), 31-34. https://doi.org/10.1016/j.profnurs_2017.07.001

Stewart, L. G., & White, M. A. (1976). Teacher comments, letter grades, and student performance: What do we really know? *Journal of Educational Psychology*, *68*(4), 488-500. DOI: 10.1037/0022-0663.68.4.488

Swanwick, T. (2008). See one, do one, then what? Faculty development in postgraduate medical education. *Post Graduate Medical Journal, 84*(993), 339–343. DOI:10.1136/pgmj.2008.068288

Swanwick, T. (2009). Teaching the teachers: No longer an optional extra. *British Journal of Hospital Medicine, 70*(3), 158-161. Available from http://faculty.londondeanery.ac.uk/other-resources

Tanner, C.A. (2007). Editorial. The curriculum revolution revisited. *Journal of Nursing Education, 46*(2), 51-52. ProQuest Central (203944602).

Trochim, W. M. K., & Donnelly, J. P. (2008). *The research methods knowledge base*. (3rd ed.). Mason, OH: Cengage Learning.

Troxler, H., Jacobson, J. C., & Oermann, M. H. (2011). How baccalaureate nursing programs teach writing. *Nursing Forum, 46*(4). 280-288. DOI: http://dx.doi.org.ezproxy.snhu.edu/10.1111/j.1744-6198.2011.00242.x

Turnitin. (2014). Instructor feedback writ large: Student perceptions on effective feedback. [White paper]. Available from http://go.turnitin.com/paper/student-perceptions-on-effective-feedback?Product=Turnitin&Notification_Language=English&Lead_Origin=Website&source=Website%20-%20Download

Tuvesson, H. & Borglin, G. (2014). The challenge of giving written thesis feedback to nursing students. *Nurse Education today, 34*(11), 1334-1345. DOI: http://dx.doi.org/10.1016/j.nedt.2014.07.003

Waitling, C., Driessen, E., van der Vleuten, C. p. M., Vanstone, M., & Lingard, L. (2012). Understanding responses to feedback: The potential and limitations of regulatory focus theory. *Medical Education, 46*(6), 593-603. DOI:10.1111/j.1365-2923.2012.04209.x

Weaver, M.R. (2006). Do students value feedback? Student perceptions of tutors' written responses. *Assessment & Evaluation in Higher Education, 31*(3), 379–94. DOI: 10.1080/02602930500353061

Wiggins, G. (2012). Seven keys to effective feedback. In ASCD (2012) *Feedback for learning*. *Educational Leadership 70*(1), 10-16. Also available at http://www.ascd.org/publications/educational-leadership/sept12/vol70/num01/Seven-Keys-to-Effective-Feedback.aspx

Wiggins G. & McTighe, J. (1998). *Understanding by design.* Alexandria, VA: ASCD

Wolsey, T. D. (2008). Efficacy of instructor feedback on written work in an online program. *International Journal on E-Learning, 7*(2), 311-329. ERIC EJ787402

Van der Kleij, F. M., Feskens, R. C. W., & Eggen, T. J. H. M. (2015). Effects of feedback in a computer-based learning environment on students' learning outcomes: A meta-analysis. *Review of Educational Research, 85*(4), 475–511. DOI: 10.3102/0034654314564881

Youger, R. E., & Ahern, T. C. (2015, Spring). Is a quality course a worthy course? Designing for value and worth in online courses. *Online Journal of Distance Learning Administration, 18*(1). ERIC EJ1055037.

Young, A. (1997). Modeling, monitoring, motivating: Response to students' ungraded writing as academic conversation. In Sorcinelli, M. D., & Elbow, P. (Eds.). (1997). Writing to learn: Strategies for assigning and responding to writing across the disciplines. *New Directions for Teaching and Learning, 69*, 27-39. San Francisco, CA: Jossey-Bass.

Zawacki, T. M. & Rogers, P. M. (2012*). Writing across the curriculum: A critical sourcebook*. Bedford/St Martin's.

Appendix A Survey Invitation

Dear Nurse Educator,

I am Carol Allen, a nurse educator and doctoral candidate in the Education Leadership program at Southern New Hampshire University. I am conducting research on nurse educators' beliefs and perceptions related to feedback in online RN-BSN programs and I am inviting you to be a part of this research.

This document provides information about my research so that you can decide whether or not to participate. If you have any questions about the research, you may contact me at c.allen3@snhu.edu or contact my dissertation chair, Dr. Margaret Ford, at m.ford1@snhu.edu.

Purpose of the Research

I want to find out which feedback strategies nurse educators apply most often in online RN-BSN programs and identify perceptions about feedback. Feedback is to provide information to lessen a gap between expectations and performance. I believe you can help by telling me your personal beliefs and practices about feedback. This information may be helpful in designing professional development activities for teaching in nursing.

What would you have to do?

The research involves responding to an online survey that will take approximately 10-15 minutes to complete.

Why were you selected?

If you are a nurse educator who has taught or is teaching in an online RN-BSN program, you are invited to complete the survey. You have been selected because you are a nurse educator who is registered with Shadow Health or have received a forwarded invitation to participate. The research team at Shadow Health distributed this invitation and did not share your email or other identifying information with me. The research itself is not associated with Shadow Health or any of the programs offered by Shadow Health. If you received this survey and have colleagues who are nurse educators teaching in online RN-BSN programs who may be interested in taking the survey, you may forward this invitation.

Voluntary Participation

Your participation in completing this survey is entirely voluntary. It is your choice to participate or not. The choice will not affect your association with Shadow Health. Responding to the survey may advance knowledge about feedback in online RN-BSN programs.

How do you participate? If you choose to participate in this research, you will click on the survey link at the end of this message. The link will direct you to an online survey. You will respond in the survey by selecting the best answer for each item. You will complete the survey by clicking on submit.

Rights to Refuse or Withdraw. You do not have to respond to the survey if you do not wish to do so. If you do wish to respond and you encounter an item you do not wish to respond to, you may skip that item in the survey.

What is next?

I will collect and analyze the data. The information collected for this research contains no personal identifying information. Tracking information, such as your IP code, is not collected. Demographic information, such as teaching experience, formal education, and location by state will be reported as aggregate data from all respondents to the survey. The city and further identifiers are not requested. All responses remain confidential. Returned surveys will be assigned a number when submitted. Only I, and members of my dissertation committee, Drs. Margaret Ford, Gibbs Kanyongo, and Sherry Merrow, will have access to the individual survey responses.

The survey link will close in 4 weeks. There are no anticipated risks in participating in this survey. There will be no direct benefits to you, but your participation is likely to help find out more about feedback provided in online RN-BSN programs. There is no compensation for completing this survey.

Results of the survey will be disseminated through publication of the dissertation. Information may be shared in conferences or journals.

If you have any questions, you may contact either of the following: Carol Allen, at c.allen3@snhu.edu or 617-721-5487. Dr. Margaret Ford, m.ford1@snhu.edu

IRB Approval. This research has been reviewed and approved by the SNHU IRB, which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find more about the IRB, contact irb@snhu.edu or 603-645-9695.

Submission of the survey indicates consent to participate in the research. To participate in this research, please click on the link below and respond to the survey.

https://snhu.qualtrics.com/jfe/form/SV_6WsQ1IWoumdSl9P

Sincerely,

Carol Allen, EdD(c), MSN, RN

Appendix B Mapping Research Questions to Survey

Table 1

Mapping Research Questions to Survey

	What do nurse educators believe about feedback in online RN-BSN programs?		
	Research Questions	Survey Items	Analysis
RQ1	What degree of importance do nurse educators place on providing feedback to students in RN-BSN programs	II-1, 2	Descriptive
RQ2	Which tools do nurse educators prefer to use when providing feedback to students in online RN-BSN programs?	III-1, 2, 3, 4, 5	Descriptive
RQ3	Which attitudes and beliefs do nurse educators hold regarding students and feedback?	IV-1, 2, 3, 4, 5, 6, 7, 8, 9	Descriptive
RQ4	Which attitudes and beliefs do nurse educators hold regarding their role and practice of feedback?	V-1, 2, 3, 4,5, 6, 7, 8, 9; VI 3, 9, 10	Descriptive
RQ5	What strategies do nurse educators identify that feed up, feed back, and feed forward?	V-4, 5, 6 VI-5,15; 4, 8; 7, 11	Descriptive
RQ6	What characteristics do nurse educators identify which address task, process, and self-regulation?	VI-1, 2, 14; 11, 8; 6, 12, 13,	Descriptive
RQ7	Are there differences between nurse educators' perception-base and experiences, education, employment status, and location?		Kruskal-Wallis Tests
	Participant demographics	I-1	
	Screening teach in RN-BSN program	I-2, 3, 4, 5, 6, 7, 11, 12,	
	Experience & Education	I-8, 9, 10,	
	Employment	I-13, 14	
	Location (Removed)		
OTHER	Write-in	VII- write-in response to capture additional information about feedback	Theme

Appendix C Survey Instrument

Nurse Educators' Perceptions about Feedback in Online RN-BSN Programs

I. Demographics

1. Do you teach in an online, RN-BSN program?
    a. Yes
    b. No
2. Indicate the range of years in which you have been teaching / did teach (in a nursing program).
    a. 0-1
    b. 1-3
    c. 3-6
    d. 6-10
    e. 10+
3. Indicate the range of years in which you have been teaching /taught online.
    a. 0-1
    b. 1-3
    c. 3-6
    d. 6-10
    e. 10+
4. Indicate which levels of nursing-programs you have taught (including Face-to-face and online; select all that apply)
    a. ADN / Diploma
    b. BSN
    c. RN-BSN
    d. MSN
    e. PhD /DPN /EdD
    f. Other _____
5. Please indicate your highest degree.
    a. BSN

   b. MSN
   c. Non-nursing masters
   d. PhD
   e. DNP
   f. EdD
   g. Other

6. Did any of your educational degrees include courses specific to teaching, including nursing education?
   a. Yes
   b. No
7. Are you certified as a nurse educator?
   a. Yes
   b. No
8. Indicate if you are employed at the nursing program full-time or part-time.
   a. Full-time
   b. Part-time
   c. Not employed at a nursing program at this time
9. Do you teach in a nursing program at more than one college or university?
   a. Yes
   b. No
   c. Not employed at a nursing program at this time
10. Besides teaching in nursing, do you have another job?
   a. No
   b. Yes, another nursing position
   c. Yes, a non-nursing position
11. Indicate if you design your online course or if the college/university develops it for you.
   a. I design my own online course.
   b. My course is developed by the college/university

12. Select the best choice that describes how you learned to provide feedback to online RN-BSN students.
    a. Experiences through trial and error
    b. Formal coursework, such as in a degree program
    c. Professional development activity, such as workshop, conference, etc.
    d. Training through technology tools, such as the online classroom platform and/or grading tools
    e. Informal training such as orientation, coaching, independent study, etc.
    f. A combination of 2 or more of the choices
13. Please select your state of residence from the list (Drop down menu list 50 states and other)
14. For this item, consider the school of nursing where you teach in online RN-BSN programs. Please select the state in which the college is physically located. If you teach in multiple RN-BSN programs housed in different states, indicate as many as applies. (List of 50 states and other with multiple selections possible.)

II. Degree of importance

When responding to the next two questions, consider your experiences teaching RN-BSN students online.

1. How important is providing feedback for student learning? (5-point Likert scale with end points labeled: Not at all important…Extremely important).
2. How important is providing feedback for student success? (5-point Likert scale with end points labeled: Not at all important … Extremely important).

III. Tools for Grading

For the next set of questions, keep in mind the last course you taught in the online RN-BSN program.

1. Please indicate the frequency of use for the following tools when providing feedback to RN-BSN students (never / sometimes /about half the time / most of the time / always)
    a. Email
    b. Asynchronous discussions (i.e., discussion boards or course announcements that include student feedback)
    c. Synchronous meetings (i.e., groups of students meeting online at the same time)
    d. Phone or text chat with individual students

   e. Voice-over Power Point
   f. Video messaging
   g. Audio files
   h. Shared document files (i.e., rubrics with marks or comments; student papers with comments, etc.)
   i. Other

2. Of the tools used for giving feedback mentioned above, which do you prefer to use most often? (Select no more than three)
   a. Email
   b. Asynchronous discussions (i.e., discussion boards or course announcements that include student feedback)
   c. Synchronous meetings (i.e., group of students)
   d. Phone or text chat with individual students
   e. Voice-over Power Point
   f. Video messaging
   g. Audio files
   h. Shared document files (i.e., rubrics with marks or comments; student papers with comments, etc.)
   i. Other
3. Which of the strategies listed below do you use to inform students of expected criteria for their assignments? (Select all that apply)
   a. Rubric
   b. Assignment prompt with instructions/guidelines
   c. Syllabus
   d. Announcement or other messaging
   e. Other
4. If you use rubrics with your assignments, consider the strategies you apply to provide feedback to your online RN-BSN students related to the rubric. Select all that apply from the following list of strategies.
   a. Check box in grid to indicate achievement level
   b. Highlight box in grid to indicate achievement level

c. Provide comments only to indicate achievement

d. Check or highlight box in grid to indicate achievement and provide comments

e. I do not use rubrics with feedback

5. If you provide comments with a rubric, consider the following strategies and indicate the item that best describes the pattern you apply most often.

   a. Comments made at the end summarize the student achievement.

   b. Comments made at the end that describe achievement and indicates what could have improved.

   c. Comments are made within each item of criteria, indicating achievement and areas for improvement

   d. Comments are made within each item of criteria, indicating achievement and areas for improvement, as well as comments to summarize achievement at the end.

   e. I do not use rubrics with feedback

IV. Perceptions About Students

Consider the majority of students to whom you have provided written feedback in your online courses. How much do you agree with the following statements? (Completely disagree / somewhat disagree / neither agree or disagree / somewhat agree / completely agree.)

1. Students understand my feedback
2. Students are emotionally invested in the assignments
3. Students do not attend to feedback
4. Students are only interested in the grade
5. Students are interested in learning how to improve
6. Students agree with my feedback
7. Students compare their grades to other students taking the course
8. Students apply feedback to future assignments
9. Students are presented with clear expectations for their assignments

V. Perceptions of Practice and Attitudes About Written Feedback

Consider how much you agree with the following statements about written feedback in online courses. (Completely disagree / somewhat disagree / neither agree or disagree / somewhat agree / completely agree.)

1. Feedback is part of the grade
2. One role of the nurse educator is to provide feedback to students
3. Providing effective feedback is time consuming
4. Feedback is used to coach students to achieve outcomes
5. Feedback should only provide information about the current assignment
6. Grades provide rewards and punishments according to the quality of students' work
7. I have adequate time allotted to give meaningful feedback
8. I am proficient at providing feedback to online RN-BSN students
9. I reflect on my teaching approach according to the students' performance in the assignment

VI. Perceptions of Feedback Characteristics

Each of the following statements describe a characteristic of feedback. Consider how frequent each statement applies to feedback you provide to RN-BSN students online (Never / rarely / sometimes / often / always)

1. Feedback points out errors for correction
2. Feedback acknowledges areas students performed well (i.e., correctly)
3. Feedback consistently uses non-judgmental language
4. Feedback integrates the expected outcome criteria
5. Feedback incorporates a plan for improvement
6. Feedback encourages students to reflect about previous learning or strategies
7. Feedback includes strategies that extend the expected learning outcomes
8. Feedback directs students to make connections between theory and practice
9. Feedback is not influenced by student's race, gender, or ethnicity
10. Feedback is clearly written in complete sentences
11. Feedback suggests alternative ideas or approaches for consideration
12. Feedback is given about professional standards of behavior
13. Feedback is given about communication
14. Feedback is given about scholarly skills
15. Feedback suggests resources to support achievement

VII. Do you have additional comments about your thoughts or practices with providing feedback?

(Survey items adapted from Bagwandeen & Singaram, 2016; Oerman, Saewert, Charasika, & Yarbrough, 2009; O'Flynn & Clauson, 2013; Bonnel & Boehm, 2011).

Appendix D Coding Schematics for SPSS

Coding Survey

Question	Responses	Codes
1. Do you, or did you teach in an online RN-BSN program?		TchRNBSN
	yes	1
	no	0
2. Indicate the range of years in which you have been teaching/did teach in a nursing program.		YrsTchNUR
	0-1	1
	1-3	2
	3-6	3
	6-10	4
	10+	5
3. Indicate the range of years in which you have been teaching or did teach online.		YrsTchOL
	0-1	1
	1-3	2
	3-6	3
	6-10	4
	10+	5

Question	Responses	Coding
4. Indicate which levels of nursing programs you have taught (including face-to-face and online). Select all that apply.		ProgTch
	ADN/Diploma Prog	1
	BSN	2
	RN-BSN	3
	MSN	4
	PhD/DNP/EdD	5
	Other	6

5. Please indicate your highest degree.		HDEG

	BSN	1
	MSN	2
	Non-Nursing Masters	3
	PhD	4
	DNP	5
	EdD	6
	Other	7

Question	Responses	Coding
6. Did any of your educational degrees include courses specific to teaching, including any specific to nursing education?		EDTch
	Yes	1
	No	0
7. Are you certified as a nurse educator?		CNE
	Yes	1
	No	0
8. Indicate if you are employed at the nursing program full-time or part-time		EMPLOY
	Full-time	2
	Part-time	1
	Not employed at a nursing program at this time	0
9. Do you teach in a nursing program at more than one college or university?		Plus
	Yes	2
	No	1
	Not employed at a nursing program at this time	0

10 Besides teaching in nursing, do you have another job?		Oth_Job
	No	0
	Yes, in another nursing position	2
	Yes, in a non-nursing position	1
11 Indicate if you design your online course or if the college/university designs the course for you.		Design
	I design my own online course	2
	My course is designed by the college/university	1
12 Select the best choice that describes how you learned to provide feedback to online RN-BSN students.		LearnFB
	Experiences such as through trial and error	1
	Formal coursework, such as in a degree program	2
	Professional development activity, such as a workshop, conference, etc.	3
	Training through technology tools, such as the online classroom platform and/or grading tools	4
	Informal training, such as orientation, coaching, independent study, etc.	5
	A combination of 2 or more of the above choices	6
13 From the drop-down menu, select the location by state or territory of your current residence.		St_RES
14 Consider the college or university where you teach online to RN-BSN students. Indicate from the list in which location that college or		ST_Uni

university is located. If you teach at more than one college or university located in different states, select each state.		
	Alabama	1
	Alaska	2
	Arizona	3
	Arkansas	4
	California	5
	Colorado	6
	Connecticut	7
	Delaware	8
	District of Columbia	9
	Florida	10
	Georgia	11
	Hawaii	12
	Idaho	13
	Illinois	14
	Indiana	15
	Iowa	16
	Kansas	17
	Kentucky	18
	Louisiana	19
	Maine	20
	Maryland	21
	Massachusetts	22
	Michigan	23
	Minnesota	24
	Mississippi	25
	Missouri	26
	Montana	27
	Nebraska	28
	Nevada	29
	New Hampshire	30
	New Jersey	31
	New Mexico	32
	New York	33
	North Carolina	34
	North Dakota	35
	Ohio	36
	Oklahoma	37
	Oregon	38
	Pennsylvania	39
	Rhode Island	40

	South Carolina	41
	South Dakota	42
	Tennessee	43
	Texas	44
	Utah	45
	Vermont	46
	Virginia	47
	Washington	48
	West Virginia	49
	Wisconsin	50
	Wyoming	51
	US Territories	52

Consider your previous experiences teaching RN-BSN students online.

15 How important is providing feedback for student learning?		V_StLrn
	Extremely important	5
	Very important	4
	Moderately important	3
	Slightly important	2
	Not at all important	1
16 How important is providing feedback for student success?		V_StSuc
	Extremely important	5
	Very important	4
	Moderately important	3
	Slightly important	2
	Not at all important	1

For the next set of questions, keep in mind the last course you taught in the online RN-BSN Program. Please indicate the frequency of use for the following tools when providing feedback to online RN-BSN students.

Tools		
17 email		T_email
	Always	5
	Most of the time	4

	About half the time	3
	Sometimes	2
	Never	1
18 Asynchronous discussions (i.e., discussion boards, announcements, etc. that include feedback)		T_asynch
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

19 Synchronous meetings (i.e., groups, online meeting spaces)		T_synch
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
20 Phone or text chat with individual students		T_phon
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
21 Voice-over PowerPoint		T VPPT
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
22 Video Messaging		T Video
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
23 Audio Files		T-AudF
	Always	5
	Most of the time	4

	About half the time	3
	Sometimes	2
	Never	1
24 Shared document files (i.e., rubrics with marks, comments page, student papers with comments, etc.)		T-ShDoc
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
25 Other		T-Oth
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

26 Of the tools for giving feedback mentioned above, which do you prefer to use? (Pick up to three preferences and drag to boxes.)

tool	Pref1	Pref2	Pref3
T_email	1	1	1
T_asynch	2	2	2
T_synch	3	3	3
T_phon	4	4	4
T_VPPT	5	5	5
T_Video	6	6	6
T-AudF	7	7	7
T-ShDoc	8	8	8
T-Oth	9	9	9

27 Which of the strategies listed below do you use to inform students of expected criteria for their assignments? (Select all that apply.)		S_Expect
S_Expect1	Rubric	Y = 1 n= 0
S_Expect2	Assignment prompt with instructions/guidelines	

S_Expect3	Syllabus	
S_Expect4	Announcement or other messaging	
S_Expect5	Other (type in)	

28 Consider the strategies you apply when using rubrics as part of your feedback to your online RN-BSN students. Select all that apply from the following list of strategies.		S_Rubric
S_RubC	Check (or mark) the box in a grid to indicate achievement level	Y=1; N=0
S_RubH	Highlight listed criteria in grid to indicate achievement level	
S_RubC	Insert comments to indicate achievement	
S_RubCC	Check or highlight box in grid to indicate achievement plus provide comments	
S_NoRub	I do not use rubrics with feedback.	

If you provide comments with a rubric, consider the following strategies and indicate the item that best describes the pattern of feedback you apply in relation to the rubric. (Select the pattern you use most often.)

29 Comments with a rubric		C_Rubric
	Criteria marked for achievement level and comments made at the end to summarize student achievement	1
	Criteria marked for achievement level and comments made at the end to summarize student achievement and indicate what could have improved.	2
	Criteria marked for achievement level, comments are made within each item of criteria, acknowledging areas of achievement and areas for improvement.	3

	Criteria marked for achievement level, comments are made within each item of criteria, acknowledging areas of achievement and areas for improvement, and comments at the end to summarize achievement.	4
	I do not use rubrics with feedback.	0

Consider the majority of RN-BSN students to whom you have provided written feedback in your online courses. How much to you agree with the following statements?

30 Students understand my feedback.		A_SUnd
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
31 Students are emotionally invested in the assignments.		A_SEmo
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
32 Students do not attend to feedback.		A_SIgno
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
33 Students are presented with clear expectations for their assignments		A_SClEx
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
34 Students are only interested in the grade.		A-SGrde
	Strongly agree	5

	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
35 Students agree with my feedback.		A_SAgree
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
36 Students compare their grades to other students taking the course.		A_SComp
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
37 Students are interested in learning how to improve.		A_SImpr
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
38 Students apply feedback to future assignments.		A_SApply
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1

Consider how much you agree with the following statements about written feedback in online courses.

39 Feedback is part of the grade.		A_FbGr
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1

40 One role of the nurse educator is to provide feedback to students.		A_FbRole
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
41 Providing effective feedback is time consuming.		A_FbTime1
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
42 Feedback is used to coach students to achieve outcomes.		A_FbCoach
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
43 Feedback should only provide information about the current assignment.		A_FbNow
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
44 Grades provide rewards and punishments according to the quality of students' work.		A_FbR_P
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
45 I have adequate time allotted to give meaningful feedback.		A_FbTime2
	Strongly agree	5

	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
46 I am proficient at providing feedback to online RN-BSN students.		A_FbEff
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1
47 I reflect on my teaching approach according to the students' performance in the assignment.		A_FbRefl
	Strongly agree	5
	Somewhat agree	4
	Neither agree nor disagree	3
	Somewhat disagree	2
	Strongly disagree	1

Each of the following statements describe a characteristic of feedback. Consider how frequent each statement applies to feedback you provide to RN-BSN students online.

48 Feedback points out errors for correction.		C_error
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
49 Feedback acknowledges areas students performed well (i.e., correctly).		C_Ack
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

50 Feedback consistently uses non-judgmental language.		C_Lang
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
51 Feedback integrates the expected outcome or competency criteria.		C_EOC
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
52 Feedback incorporates a plan for improvement.		C_Plan
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
53 Feedback encourages students to reflect about previous learning or strategies.		C_Refl
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
54 Feedback includes strategies that extend the expected learning outcomes.		C_Ext
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

55 Feedback directs students to make connections between theory and practice.		C_Conn
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
56 Feedback is not influenced by student's race, gender, or ethnicity.		C_Infl
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
57 Feedback is clearly written in complete sentences.		C_Sent
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
58 Feedback suggests alternative ideas or approaches for consideration.		C_Alt
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
59 Feedback is given about professional standards of behavior.		C_Prof
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

60 Feedback is given about communication.		C_Comm
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
61 Feedback is given about scholarly skills.		C_Skill
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1
62 Feedback suggests resources to support achievement.		C_Resor
	Always	5
	Most of the time	4
	About half the time	3
	Sometimes	2
	Never	1

Do you have additional comments about your thoughts or practices with providing feedback? Lease enter your comments in the text box.

Appendix E Target Variable Transformation

Target Variables: Types of Feedback, Levels of Feedback, and Format Style

Target Variable	**Combined Variables**	**Ranges in Combined Variable**	
		Minimum	Maximum
Feed Up	Incorporates a plan for improvement.	1=Never	5=Always
	Feedback suggests resources to support achievement.	1=Never	5=Always
Feed Back	Feedback integrates the expected outcome or competency criteria.	1=Never	5=Always
	Feedback directs students to make connections between theory and practice.	1=Never	5=Always
Feed Forward	Feedback suggests alternative ideas of approaches for consideration.	1=Never	5=Always
	Feedback includes strategies that extend the expected learning outcomes.	1=Never	5=Always
Task Level	Feedback points out errors for correction	1=Never	5=Always
	Feedback is given about scholarly skills.	1=Never	5=Always
	Feedback acknowledges areas students performed well (Correctly).	1=Never	5=Always
Process Level	Feedback suggests alternative ideas or approaches for consideration	1=Never	5=Always
	Feedback directs students to make connections between theory and practice	1=Never	5=Always
Self-Regulation Level	Feedback encourages students to reflect about previous learning or strategies	1=Never	5=Always
	Feedback is given about professional standards of behavior.	1=Never	5=Always
	Feedback is given about communication.	1=Never	5=Always

Target Variable: Format Style

Target Variable	**Combined Variables**	**Ranges in Combined Variables**	
		Minimum	Maximum
FormCharacter	Feedback is not influenced by student's race, gender, or ethnicity.	1=Never	5=Always
	Feedback is clearly written in complete sentences.	1=Never	5=Always
	Feedback consistently uses nonjudgmental language.	1=Never	5=Always

Appendix F Additional Comments

The survey invited respondents to share any additional comments with thoughts or practices about feedback. Twenty of the respondents left comments.

A. I am also influenced by being an RN-BSN student myself and my personal experiences of what worked well (3)

B. Points deducted on future assignments after feedback is ignored (6)

C. In my opinion, feedback is very important in order to help students continue to improve and develop as they advance throughout their education program. (7)

D. organization and feedback are the two most critical components in an online RN-BSN for the success of students-Natasha Wamsley, MSN-FNP WV (11)

E. Your question about the location of the nursing program where I teach was difficult to answer. I teach for a proprietary national program. I am not certain that the "home office address" is an accurate indicator of where the online program is located. Good Luck with your research! (12)

F. I think it is important to approach feedback in a way that considers your student a respected colleague (17)

G. I am interested in the outcomes of this research. Thanks for including me. (18)

H. This survey has given me some things to think about when I give feedback.(27)

I. Providing feedback continues to be challenging. Some students use the feedback and others do not, Students sometimes are satisfied with B work and they are trying to jugging (sic) work, family, and school. And school comes in last. (28)

J. Teaching online and providing thoughtful feedback is very time consuming! (35)

K. It is increasingly necessary as self-reflection and analysis skills of students are very weak (37)

L. One of your previous questions was not clearly stated.... (45)

M. Giving feedback to online students is challenging at times. (50)

N. I like to use sandwich feeback (sic) so starting with a complement or postives (sic) then negative and end feedback with another positive comment (55)

O. Online education is amazing (56)

P. Great topic! (66)

Q. I don't find that many students utilize the feedback and find myself correcting the same errors week after week. It's very frustrating! (67)

R. I spend a great deal of time giving students extensive written feedback. Most students learn from this and improve there (sic) performance. There are always one or two students/class who continue to make similar errors despite the feedback. I will then arrange a phone call with them to try to clarify further what is expected. One area you did not mention is feedback about grammar, word choice, sentence structure etc. I always give students this kind of feedback as well. Individuals with Bachelor degrees should be proficient in this area as well. (68)

S. Feedback is specific to assignment and to student. Especially, as I get to know them in the online environment. (69)

T. If feedback is not provided to the learner, how will they know where they need improvement or if they are doing well? Feedback needs to be positive and not negative. I use verbiage such as "Perhaps you can rephrase this sentence to be more direct (then I give a suggestions). I do not correct the same errors in a paper. I tell my student that I will end at this point and they are responsible for correcting the rest of their paper. That way they learn from their mistakes. (70)

U. The question about the use of rubrics did not have the answer I wanted. I always use check boxes when available. I often make comments with each aspect that has not earned the highest score. I always provide an overall comment. (74)

Appendix G Data Tables (SPSS)

G.1 Frequency Tables and Medians

G.2 Histograms

G.3 Kruskal-Wallis: Attitudes

G.4 Kruskal-Wallis: Tools

G.5 Kruskal-Wallis: Combined Target Variables

Appendix G.1 Frequency Tables and Medians

Frequencies: Experience, Education, Employment

Years Teaching in Nursing (*N=76; M=4*)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-1	4	5.3	5.3	5.3
	1-3	11	14.5	14.5	19.7
	3-6	15	19.7	19.7	39.5
	6-10	16	21.1	21.1	60.5
	10+	30	39.5	39.5	100.0
	Total	76	100.0	100.0	

Years Teaching Online (N=76; M=3)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-1	7	9.2	9.2	9.2
	1-3	18	23.7	23.7	32.9
	3-6	19	25.0	25.0	57.9
	6-10	17	22.4	22.4	80.3
	10+	15	19.7	19.7	100.0
	Total	76	100.0	100.0	

Frequency Tables: Nursing Programs Teach (ADN, BSN, RN-BSN, MSN, Doctoral, Other)
ADN (N=76; M=0)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	44	57.9	57.9	57.9
	Yes (1)	32	42.1	42.1	100.0
	Total	76	100.0	100.0	

BSN (N=76; M=1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	21	27.6	27.6	27.6
	Yes (1)	55	72.4	72.4	100.0
	Total	76	100.0	100.0	

RN-BSN (N=76; M-1)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	4	5.3	5.3	5.3
	Yes (1)	72	94.7	94.7	100.0
	Total	76	100.0	100.0	

MSN (N=76; M=0)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	43	56.6	56.6	56.6
	Yes (1)	33	43.4	43.4	100.0
	Total	76	100.0	100.0	

Doctoral (N=76; M=0)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	70	92.1	92.1	92.1
	Yes (1)	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

Other (ADN, LPN: N=76; M=0)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	70	92.1	92.1	92.1
	Text (1)	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

Highest Degree (N=76; M=4)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BSN	0	0	0	0
	MSN	31	40.8	40.8	40.8
	Non-Nur MA	0	0	0	0
	PhD	19	25.0	25.0	65.8
	DNP	16	21.1	21.1	86.8
	EdD	4	5.3	5.3	92.1
	Other	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

Formal Education on Teaching Strategies (N=76; M=1)
EdTch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	20	26.3	26.3	26.3
	Yes (1)	56	73.7	73.7	100.0
	Total	76	100.0	100.0	

Certified Nurse Educator (CNE) (N=76; M=0)
CNE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (0)	58	76.3	76.3	76.3
	Yes (1)	18	23.7	23.7	100.0
	Total	76	100.0	100.0	

Employment Status (N=76; M=2)
Employ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not employed at a nursing program at this time (0)	4	5.3	5.3	5.3
	Part-time (1)	25	32.9	32.9	38.2
	Full-time (2)	46	60.5	60.5	98.7
	no response	1	1.3	1.3	100.0
	Total	76	100.0	100.0	

Teaches at More than One University or College of Nursing (N=76; M=1)
Plus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not employed at a nursing program (0)	1	1.3	1.3	1.3
	No (1)	57	75.0	75.0	76.3
	Yes (2)	18	23.7	23.7	100.0
	Total	76	100.0	100.0	

Has another Non-Teaching Job (N=76; M=2)
Oth_Job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	32	42.1	42.1	42.1
	Yes, non-nursing	4	5.3	5.3	47.4
	Yes, another nursing pro	40	52.6	52.6	100.0
	Total	76	100.0	100.0	

Designer of Online Course (N=76; M=1)
Design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	1	1.3	1.3	1.3
	Designed by University (1)	46	60.5	60.5	61.8
	Designed by Faculty (2)	29	38.2	38.2	100.0
	Total	76	100.0	100.0	

Strategies Learned to Provide Feedback (N=76; M=6)
LearnFB

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Trial_Error	7	9.2	9.2	9.2
	FormCW	4	5.3	5.3	14.5
	ProDev	4	5.3	5.3	19.7
	TechTool	3	3.9	3.9	23.7
	Informal	0	0	0	23.7
	Combo 2+	58	76.3	76.3	100.0
	Total	76	100.0	100.0	

Value of Feedback for Student Learning (N=76; M=5)
V_StLrn

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	9	11.8	11.8	11.8
	Extremely Important	67	88.2	88.2	100.0
	Total	76	100.0	100.0	

*Categories of Moderately Important, Slightly Important, and Not Important at all were not selected.

Value of Feedback for Student Success (N=76; M=5)
V_StSuc

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	12	15.8	15.8	15.8
	Extremely Important	64	84.2	84.2	100.0
	Total	76	100.0	100.0	

**Categories of Moderately Important, Slightly Important, and Not Important at All were not selected.*

Frequencies: Use of Tools in Providing Feedback

Tool: email (N=75: M=4)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	1	1.3	1.3	1.3
	Never	2	2.6	2.7	4.0
	Sometimes	18	23.7	24.0	28.0
	About half the time	11	14.5	14.7	42.7
	Most of the time	11	14.5	14.7	57.3
	Always	32	42.1	42.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Tool: Asynchronous (N=74; M=4)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	2	2.6	2.7	2.7
	Never	4	5.3	5.4	8.1
	Sometimes	8	10.5	10.8	18.9
	About half the time	4	5.3	5.4	24.3
	Most of the time	20	26.3	27.0	51.4
	Always	36	47.4	48.6	100.0
	Total	74	97.4	100.0	
Missing	System	2	2.6		
Total		76	100.0		

Tool: Synchronous (N=75; M=1)
T_synch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	38	50.0	50.7	50.7
	Sometimes	26	34.2	34.7	85.3
	About half the time	3	3.9	4.0	89.3
	Most of the time	5	6.6	6.7	96.0
	Always	3	3.9	4.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Tool: Phone (N=76; M=2)
T_phon

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	12	15.8	15.8	15.8
	Sometimes	39	51.3	51.3	67.1
	About half the time	11	14.5	14.5	81.6
	Most of the time	10	13.2	13.2	94.7
	Always	4	5.3	5.3	100.0
	Total	76	100.0	100.0	

Tool: Voice-over PowerPoint (N=74; M=1.5)
T_VPPT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	37	48.7	50.0	50.0
	Sometimes	17	22.4	23.0	73.0
	About half the time	6	7.9	8.1	81.1
	Most of the time	9	11.8	12.2	93.2
	Always	5	6.6	6.8	100.0
	Total	74	97.4	100.0	
Missing	System	2	2.6		
Total		76	100.0		

Tool: Video Messaging (N=74; M=1)
T_Video

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	45	59.2	60.8	60.8
	Sometimes	15	19.7	20.3	81.1
	About half the time	5	6.6	6.8	87.8
	Most of the time	6	7.9	8.1	95.9
	Always	3	3.9	4.1	100.0
	Total	74	97.4	100.0	
Missing	System	2	2.6		
Total		76	100.0		

Tool: Audio Files (N=74; M=1)
T_AudF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	41	53.9	55.4	55.4
	Sometimes	20	26.3	27.0	82.4
	About half the time	4	5.3	5.4	87.8
	Most of the time	6	7.9	8.1	95.9
	Always	3	3.9	4.1	100.0
	Total	74	97.4	100.0	
Missing	System	2	2.6		
Total		76	100.0		

Tool: Shared Documents (N=76; M=5)
T_ShDoc

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	3	3.9	3.9	3.9
	Sometimes	3	3.9	3.9	7.9
	About half the time	6	7.9	7.9	15.8
	Most of the time	14	18.4	18.4	34.2
	Always	50	65.8	65.8	100.0
	Total	76	100.0	100.0	

Tool: Other (N=76; M=0)
T_Oth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	61	80.3	80.3	80.3
	Never	4	5.3	5.3	85.5
	Sometimes	3	3.9	3.9	89.5
	About half the time	1	1.3	1.3	90.8
	Always	6	7.9	7.9	98.7
	Response without measure	1	1.3	1.3	100.0
	Total	76	100.0	100.0	

Frequencies: Tool Preferences for Use in Providing Feedback

First Tool Preference (N=76; M=4.5)
TPref1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	1	1.3	1.3	1.3
	PT_email	7	9.2	9.2	10.5
	PT_asynch	22	28.9	28.9	39.5
	PT_phon	8	10.5	10.5	50.0
	PT_vppt	1	1.3	1.3	51.3
	PR_video	1	1.3	1.3	52.6
	PT_audioF	1	1.3	1.3	53.9
	PT_ShDoc	35	46.1	46.1	100.0
	Total	76	100.0	100.0	

Second Tool Preference (N=76; M=2)
TPref2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	3	3.9	3.9	3.9
	PT_email	12	15.8	15.8	19.7
	PT_asynch	24	31.6	31.6	51.3
	PT_synch	5	6.6	6.6	57.9
	PT_phon	8	10.5	10.5	68.4
	PT_vppt	3	3.9	3.9	72.4
	PT_video	1	1.3	1.3	73.7
	PT_audF	5	6.6	6.6	80.3
	PT_ShDoc	14	18.4	18.4	98.7
	PT_Oth	1	1.3	1.3	100.0
	Total	76	100.0	100.0	

Third Tool Preference (N=76; M=4)
TPref3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	3	3.9	3.9	3.9
	PT email	10	13.2	13.2	17.1
	PT asynch	10	13.2	13.2	30.3
	PT_synch	7	9.2	9.2	39.5
	PT_phon	21	27.6	27.6	67.1
	PT video	7	9.2	9.2	76.3
	PT audF	2	2.6	2.6	78.9
	PT ShDoc	13	17.1	17.1	96.1
	PT_Oth	3	3.9	3.9	100.0
	Total	76	100.0	100.0	

Frequencies: Tools Used to Provide Students with Expectations (Rubrics, Instructions, Syllabus, Announcements, Other)

Expectations by Rubrics (N=76; M=1)
SE Rubric

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	1	1.3	1.3	1.3
	Yes	75	98.7	98.7	100.0
	Total	76	100.0	100.0	

Expectations by Instruction Prompt (N=76. M=1)
SE_Instr

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	12	15.8	15.8	15.8
	Yes	64	84.2	84.2	100.0
	Total	76	100.0	100.0	

Expectations by Syllabus (N=76; M=1)
SE Syllab

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	19.7	19.7	19.7
	Yes	61	80.3	80.3	100.0
	Total	76	100.0	100.0	

Expectations by Announcements (N=76; M=1)
SE_Announ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	17	22.4	22.4	22.4
	Yes	59	77.6	77.6	100.0
	Total	76	100.0	100.0	

Expectations by Other (N=76; M=0)
SE_Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	none	73	96.1	96.1	96.1
	text	3	3.9	3.9	100.0
	Total	76	100.0	100.0	

Frequencies: Strategies of Rubric Use

Check Criterion Showing Achievement (N=76)
S_RubCh

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	39	51.3	51.3	51.3
	Yes	37	48.7	48.7	100.0
	Total	76	100.0	100.0	

Highlight Criterion Showing Achievement (N=76)
S_RubH

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	58	76.3	76.3	76.3
	Yes	18	23.7	23.7	100.0
	Total	76	100.0	100.0	

Insert Comments to Indicate Achievement (N=76)
S_RubCom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	22	28.9	28.9	28.9
	Yes	54	71.1	71.1	100.0
	Total	76	100.0	100.0	

Check or Highlight and Comment about Achievement (N=76)

S_RubCC

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	25	32.9	32.9	32.9
	Yes	51	67.1	67.1	100.0
	Total	76	100.0	100.0	

Does Not Use Rubrics (N=76)
S_NoRub

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	73	96.1	96.1	96.1
	Yes	1	1.3	1.3	97.4
	No Response	2	2.6	2.6	100.0
	Total	76	100.0	100.0	

Frequencies: Perceived Typical Patterns Used for Making Comments for Feedback

Comments Made on Rubrics (N=76)
C_Rubric

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Do not use rubrics	4	5.3	5.3	5.3
	Mark level_Sum comment_end	6	7.9	7.9	13.2
	Mark level_Sum comment_Improv	14	18.4	18.4	31.6
	Mark level_com achieve_Improv	17	22.4	22.4	53.9
	Mark level_com ach_imp_sum	32	42.1	42.1	96.1
	Marked more than one	3	3.9	3.9	100.0
	Total	76	100.0	100.0	

Frequencies: Attitudes about Students and Feedback

Students Understand My Feedback (N=76; M=5)
A_SUnd

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	1	1.3	1.3	1.3
	Neither agree nor disagree	2	2.6	2.6	3.9
	Somewhat agree	28	36.8	36.8	40.8
	Strongly agree	45	59.2	59.2	100.0
	Total	76	100.0	100.0	

Students are Emotionally Invested in the Assignments (N=75; M=4)
A_SEmo

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	6	7.9	8.0	8.0
	Neither agree nor disagree	6	7.9	8.0	16.0
	Somewhat agree	38	50.0	50.7	66.7
	Strongly agree	25	32.9	33.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Students do not Attend to my Feedback (N=76; M=3.5)
A_SIgno

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	5.3	5.3	5.3
	Somewhat disagree	26	34.2	34.2	39.5
	Neither agree nor disagree	8	10.5	10.5	50.0
	Somewhat agree	36	47.4	47.4	97.4
	Strongly agree	2	2.6	2.6	100.0
	Total	76	100.0	100.0	

Students are Only Interested in the Grade (N=76; M=3.5)
A_SGrde

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	7.9	7.9	7.9
	Somewhat disagree	18	23.7	23.7	31.6
	Neither agree nor disagree	14	18.4	18.4	50.0
	Somewhat agree	27	35.5	35.5	85.5
	Strongly agree	11	14.5	14.5	100.0
	Total	76	100.0	100.0	

Students are Interested in Learning How to Improve (N=76; M=4)
A_SImpr

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	5	6.6	6.6	6.6
	Neither agree nor disagree	7	9.2	9.2	15.8
	Somewhat agree	45	59.2	59.2	75.0
	Strongly agree	19	25.0	25.0	100.0
	Total	76	100.0	100.0	

Students Agree with my Feedback (N=75; M=4)
A_SAgree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.3	1.3
	Somewhat disagree	2	2.6	2.7	4.0
	Neither agree nor disagree	19	25.0	25.3	29.3
	Somewhat agree	43	56.6	57.3	86.7
	Strongly agree	10	13.2	13.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Students Compare their Grades to Other Students Taking the Course (N=76; M=3)
A_SComp

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	4	5.3	5.3	5.3
	Somewhat disagree	5	6.6	6.6	11.8
	Neither agree nor disagree	40	52.6	52.6	64.5
	Somewhat agree	19	25.0	25.0	89.5
	Strongly agree	8	10.5	10.5	100.0
	Total	76	100.0	100.0	

Students Apply Feedback to Future Assignments (N=76; M=4)
A_SApply

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	5	6.6	6.6	6.6
	Neither agree nor disagree	12	15.8	15.8	22.4
	Somewhat agree	53	69.7	69.7	92.1
	Strongly agree	6	7.9	7.9	100.0
	Total	76	100.0	100.0	

Students are Presented with Clear Expectations for their Assignments (N=75; M=5)
A_SClEx

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat agree	22	28.9	29.3	29.3
	Strongly agree	53	69.7	70.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Frequencies: Practice Perceptions: Role in Providing Feedback

One Role of the Nurse Educator is to Provide Feedback to Students (N=76; M=5)
A_FbRole

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat agree	6	7.9	7.9	7.9
	Strongly agree	70	92.1	92.1	100.0
	Total	76	100.0	100.0	

None of the other categories were selected.

I Reflect on my Teaching Approach According to the Students' Performance in the Assignment A_FbRefl (N=76; M=4)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	2.6	2.6	2.6
	Neither agree nor disagree	8	10.5	10.5	13.2
	Somewhat agree	32	42.1	42.1	55.3
	Strongly agree	34	44.7	44.7	100.0
	Total	76	100.0	100.0	

I am Proficient at Providing Feedback to Online RN-BSN Students (N=76; M=4.5) A_FbEff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	1	1.3	1.3	1.3
	Neither agree nor disagree	6	7.9	7.9	9.2
	Somewhat agree	31	40.8	40.8	50.0
	Strongly agree	38	50.0	50.0	100.0
	Total	76	100.0	100.0	

Frequencies: Practice Perceptions: Time

Providing Feedback is Time Consuming (N=75; M=5) A_FbTime1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.3	1.3
	Somewhat disagree	1	1.3	1.3	2.7
	Neither agree nor disagree	4	5.3	5.3	8.0
	Somewhat agree	27	35.5	36.0	44.0
	Strongly agree	42	55.3	56.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

I Have Enough Time to Provide Feedback (N=76; M=4)
A_FbTime2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	3	3.9	3.9	3.9
	Somewhat disagree	8	10.5	10.5	14.5
	Neither agree nor disagree	10	13.2	13.2	27.6
	Somewhat agree	31	40.8	40.8	68.4
	Strongly agree	24	31.6	31.6	100.0
	Total	76	100.0	100.0	

Frequencies: Practice Perceptions: Attitudes Related to Use of Feedback

Feedback is Used to Coach Students to Achieve Outcomes (N=76; M=5)
A_FbCoach

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat agree	15	19.7	19.7	19.7
	Strongly agree	61	80.3	80.3	100.0
	Total	76	100.0	100.0	

Other categories were not selected

Feedback Should Only Provide Information About the Current Assignment (N=75; M=4)
A_FbNow

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	3	3.9	4.0	4.0
	Somewhat disagree	23	30.3	30.7	34.7
	Neither agree nor disagree	9	11.8	12.0	46.7
	Somewhat agree	23	30.3	30.7	77.3
	Strongly agree	17	22.4	22.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Grades Provide Rewards and Punishments According to the Quality of Students' Work (N=76; M=3.5)
A_FbR_P

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	10	13.2	13.2	13.2
	Somewhat disagree	6	7.9	7.9	21.1
	Neither agree nor disagree	22	28.9	28.9	50.0
	Somewhat agree	28	36.8	36.8	86.8
	Strongly agree	10	13.2	13.2	100.0
	Total	76	100.0	100.0	

Feedback is Part of the Grade (N=76; M=5)
A_FbGr

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	2.6	2.6	2.6
	Somewhat disagree	5	6.6	6.6	9.2
	Neither agree nor disagree	10	13.2	13.2	22.4
	Somewhat agree	19	25.0	25.0	47.4
	Strongly agree	40	52.6	52.6	100.0
	Total	76	100.0	100.0	

Frequencies: Practice Perceptions: Formatting Style – Characteristics of Feedback

Feedback Consistently Uses Non-Judgmental Language (N=75; M=5)
C_Lang

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	1	1.3	1.3	1.3
	About half the time	2	2.6	2.7	4.0
	Most of the time	23	30.3	30.7	34.7
	Always	49	64.5	65.3	100.0
	Total	75	98.7	100.0	
Missing		1	1.3		
Total		76	100.0		

Feedback is Not Influenced by Students' Race, Gender, or Ethnicity (N=75; M=5)

C_Infl

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	1	1.3	1.3	1.3
	Never	2	2.6	2.7	4.0
	Sometimes	1	1.3	1.3	5.3
	About half the time	2	2.6	2.7	8.0
	Most of the time	3	3.9	4.0	12.0
	Always	66	86.8	88.0	100.0
	Total	75	98.7	100.0	
Missing		1	1.3		
Total		76	100.0		

Feedback is Clearly Written in Complete Sentences (N=75; M=4)

C_Sent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	2	2.6	2.7	2.7
	About half the time	2	2.6	2.7	5.3
	Most of the time	34	44.7	45.3	50.7
	Always	37	48.7	49.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Points Out Errors for Correction (N=75; M=4)

C-Errors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	4	5.3	5.3	5.3
	About half the time	7	9.2	9.3	14.7
	Most of the time	29	38.2	38.7	53.3
	Always	35	46.1	46.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Acknowledges Areas Students Performed Well (N=75; M=5)

C_Ack					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	3	3.9	4.0	4.0
	About half the time	7	9.2	9.3	13.3
	Most of the time	25	32.9	33.3	46.7
	Always	40	52.6	53.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback is Given about Scholarly Skills (N=75; M=5)

C_Skill					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	1	1.3	1.3	1.3
	Sometimes	2	2.6	2.7	4.0
	About half the time	5	6.6	6.7	10.7
	Most of the time	25	32.9	33.3	44.0
	Always	42	55.3	56.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Directs Students to Make Connections Between Theory and Practice (n=75; M=4)

C_Conn					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	2	2.6	2.7	2.7
	About half the time	8	10.5	10.7	13.3
	Most of the time	35	46.1	46.7	60.0
	Always	30	39.5	40.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Suggests Alternative Ideas or Approaches for Consideration (N=75; M=4)

C_Alt					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	1	1.3	1.3	1.3
	Sometimes	3	3.9	4.0	5.3
	About half the time	5	6.6	6.7	12.0
	Most of the time	36	47.4	48.0	60.0
	Always	30	39.5	40.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Encourages Students to Reflect about Previous Learning (N=75; M=4)

C_Refl					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	2	2.6	2.7	2.7
	About half the time	9	11.8	12.0	14.7
	Most of the time	38	50.0	50.7	65.3
	Always	26	34.2	34.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback is Given about Professional Standards or Behavior (N=73; M=4)

C_PROF					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Response	1	1.3	1.3	1.3
	Sometimes	7	9.2	9.3	10.7
	About half the time	12	15.8	16.0	26.7
	Most of the time	25	32.9	33.3	60.0
	Always	30	39.5	40.0	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
TOTAL		76	100.0		

Feedback is Given about Communication (N=75; M=4)

C_Comm					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	6	7.9	8.0	8.0
	About half the time	9	11.8	12.0	20.0
	Most of the time	29	38.2	38.7	58.7
	Always	31	40.8	41.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback Incorporates a Plan for Improvement (N=75; M=4)

C_PLAN					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	4	5.3	5.3	5.3
	About half the time	6	7.9	8.0	13.3
	Most of the time	31	40.8	41.3	54.7
	Always	34	44.7	45.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
TOTAL		76	100.0		

Feedback Suggests Resources to Support Achievement (N=75; M=5)

C_Resor					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	3	3.9	4.0	4.0
	About half the time	4	5.3	5.3	9.3
	Most of the time	27	35.5	36.0	45.3
	Always	41	53.9	54.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

Feedback integrates Expected Outcomes (N=75; M=5)

C EOC					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	1	1.3	1.3	1.3
	About half the time	1	1.3	1.3	2.7
	Most of the time	24	31.6	32.0	34.7
	Always	49	64.5	65.3	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

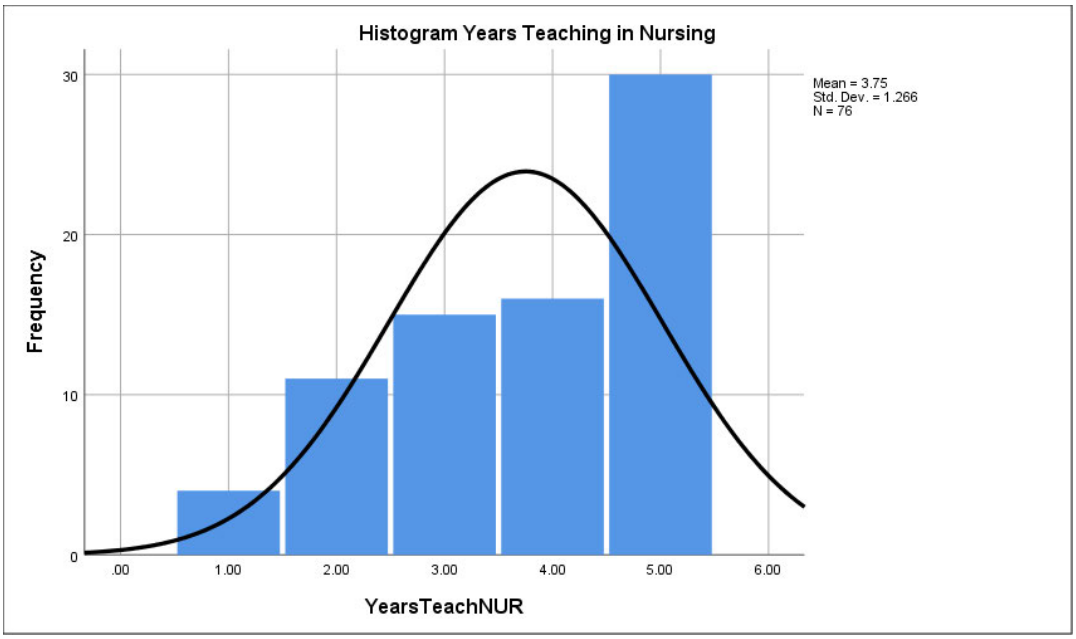
Feedback Includes Strategies that Extend the Expected Learning Outcomes (N=75; M=4)

C Ext					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sometimes	5	6.6	6.7	6.7
	About half the time	9	11.8	12.0	18.7
	Most of the time	41	53.9	54.7	73.3
	Always	20	26.3	26.7	100.0
	Total	75	98.7	100.0	
Missing	System	1	1.3		
Total		76	100.0		

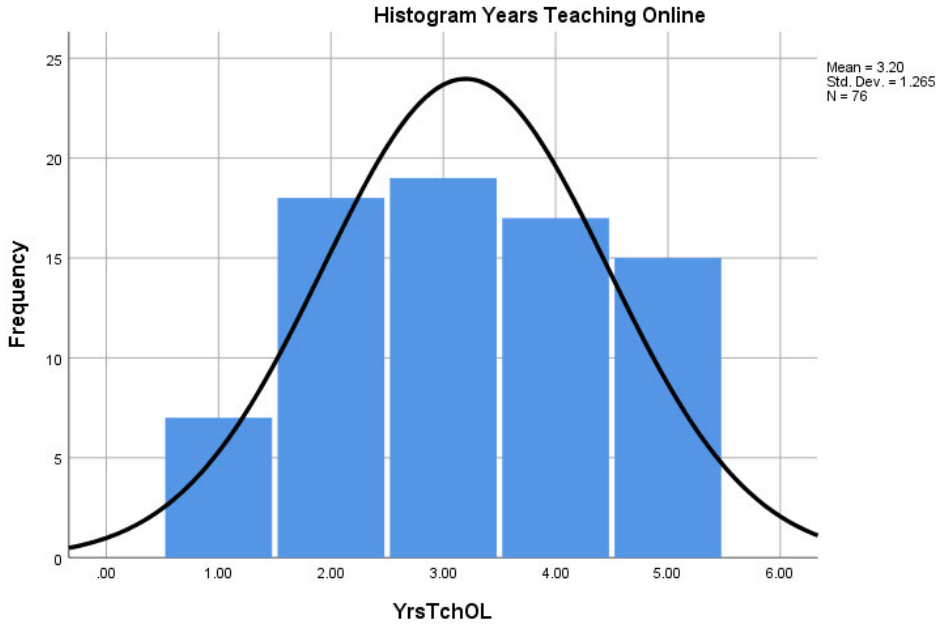
Appendix G.2

Histograms of Frequency Tables

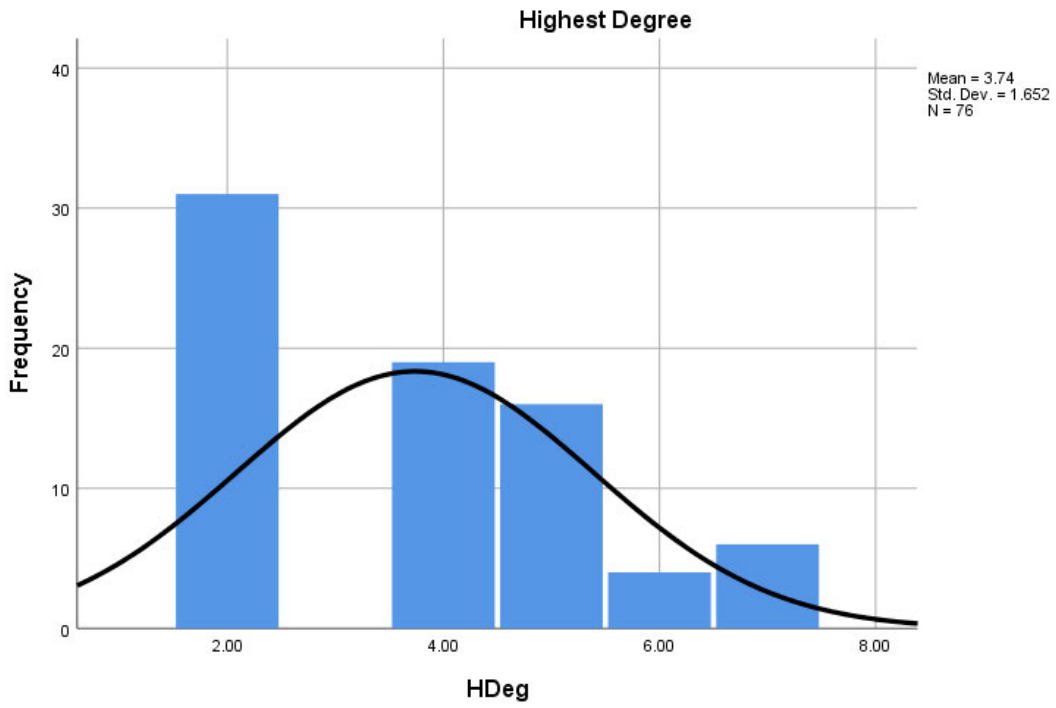
Years Teaching in Nursing *(N=76)*



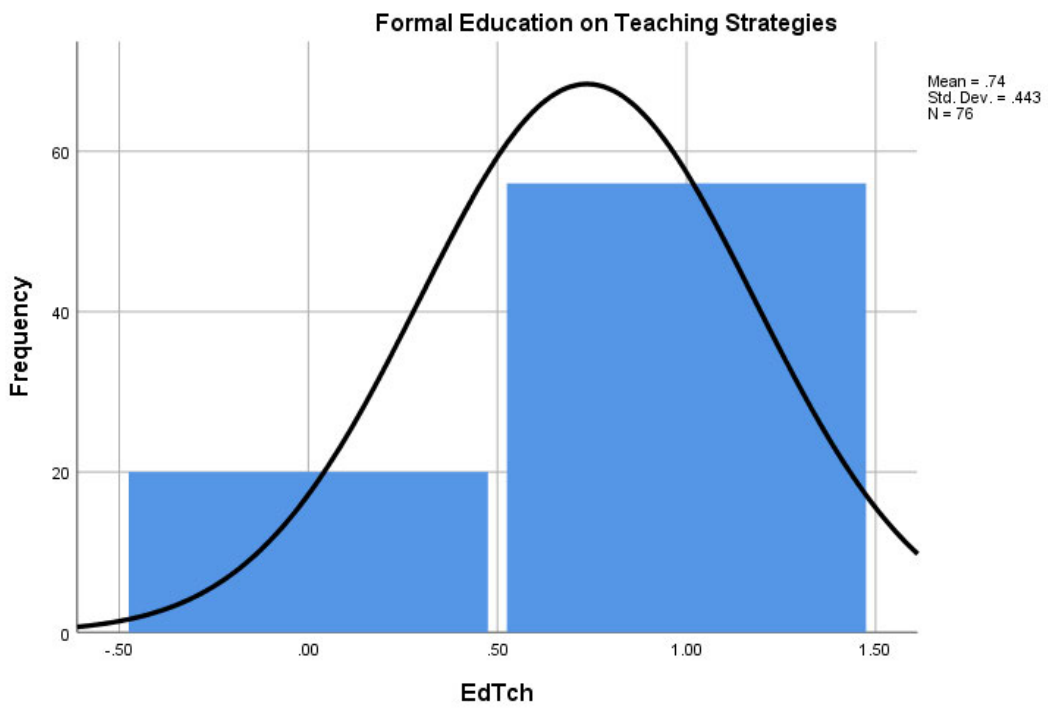
Histogram Years Teaching Online *(N=76)*.



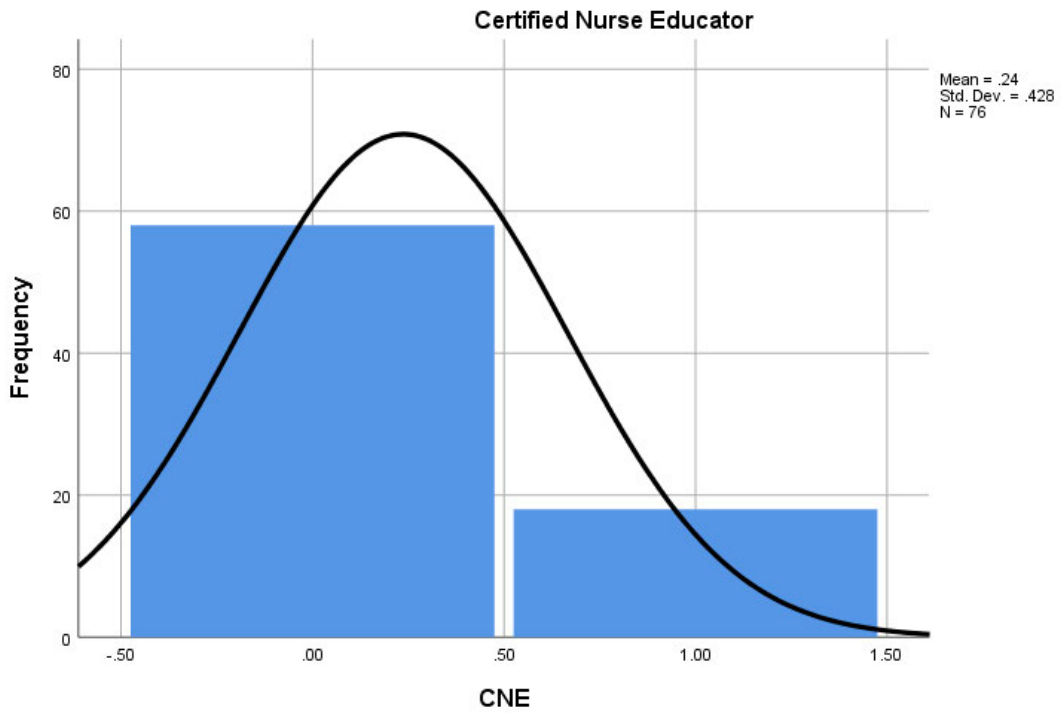
Highest Degree *(N=78)*



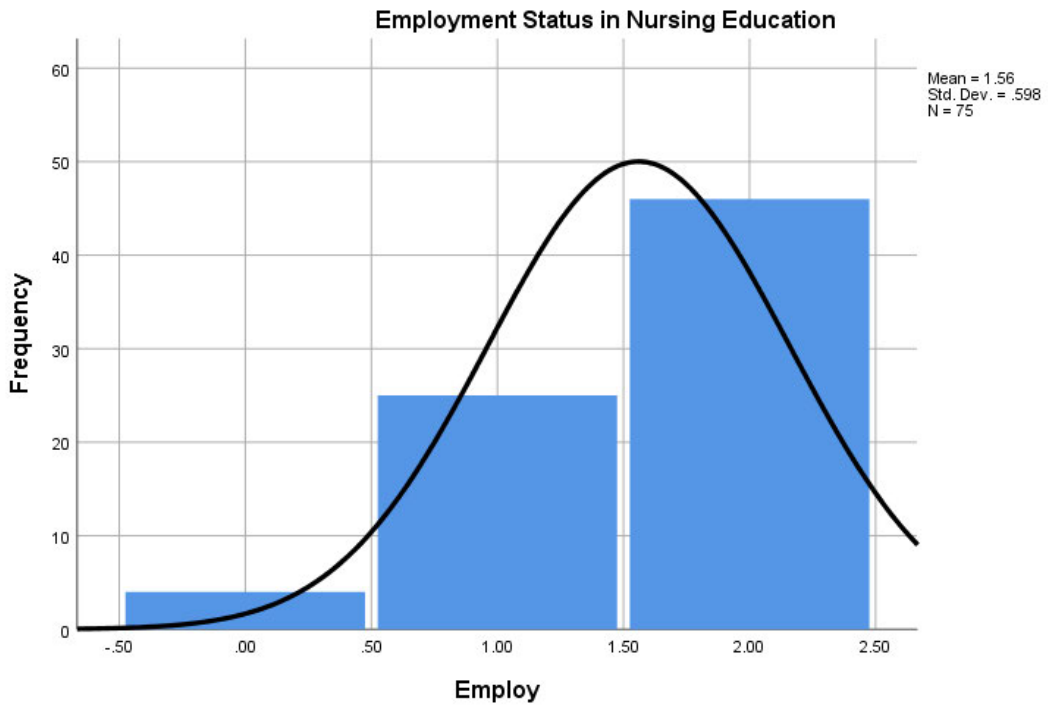
Formal Education on Teaching Strategies *(N=76)*



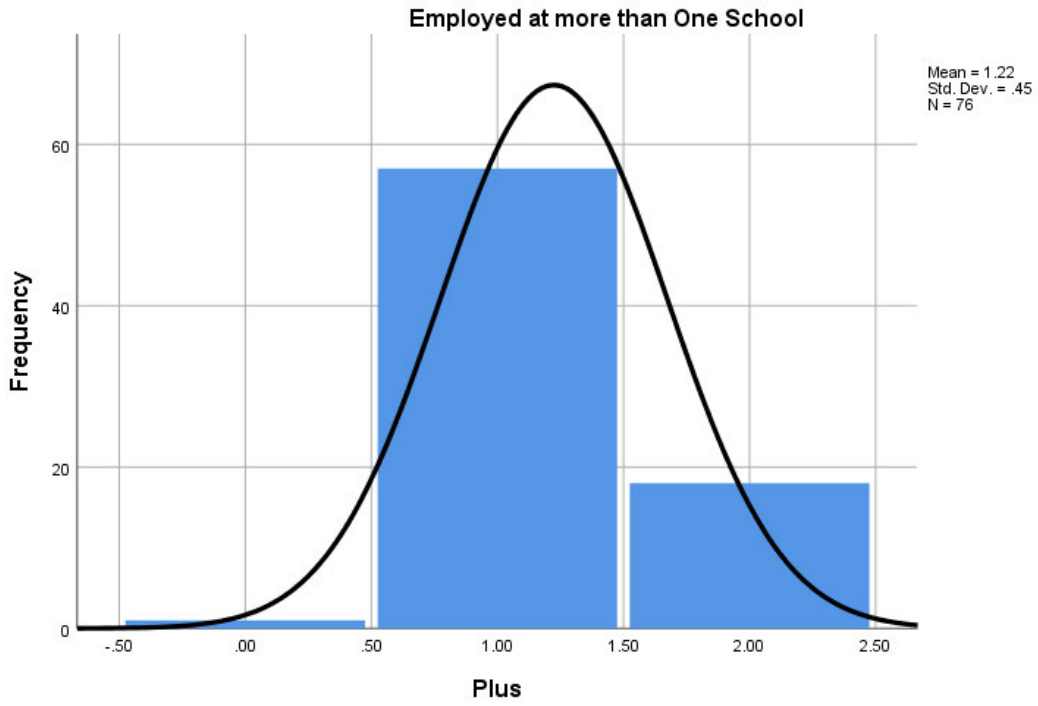
Certified Nurse Educator *(N=76)*



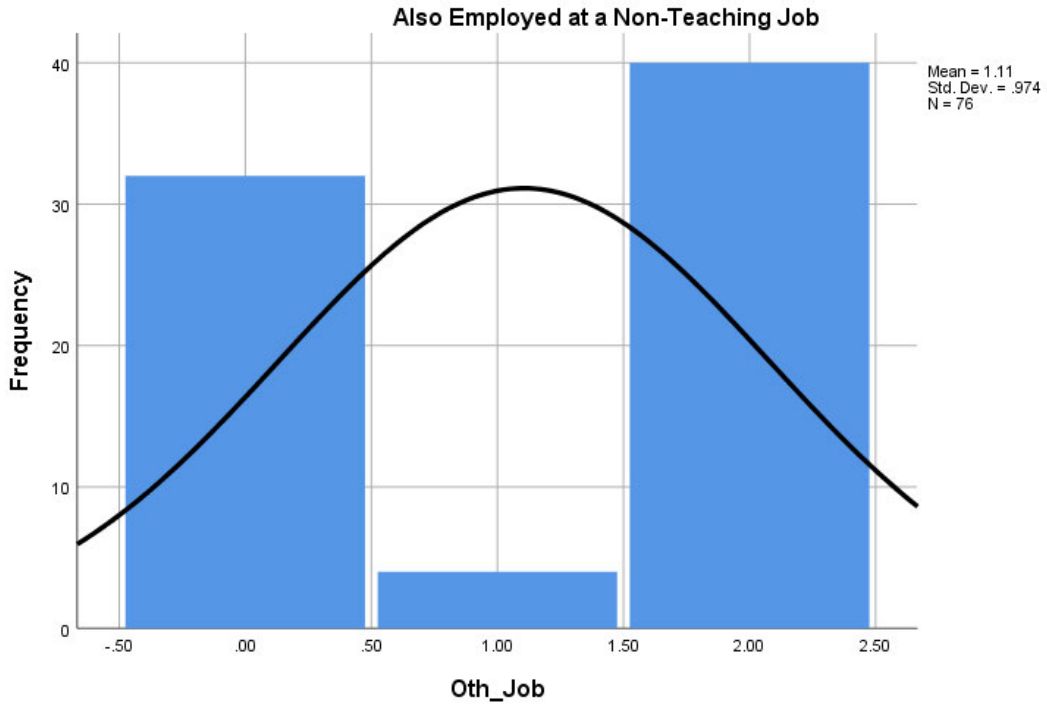
Employment Status in Nursing Education (N=76)



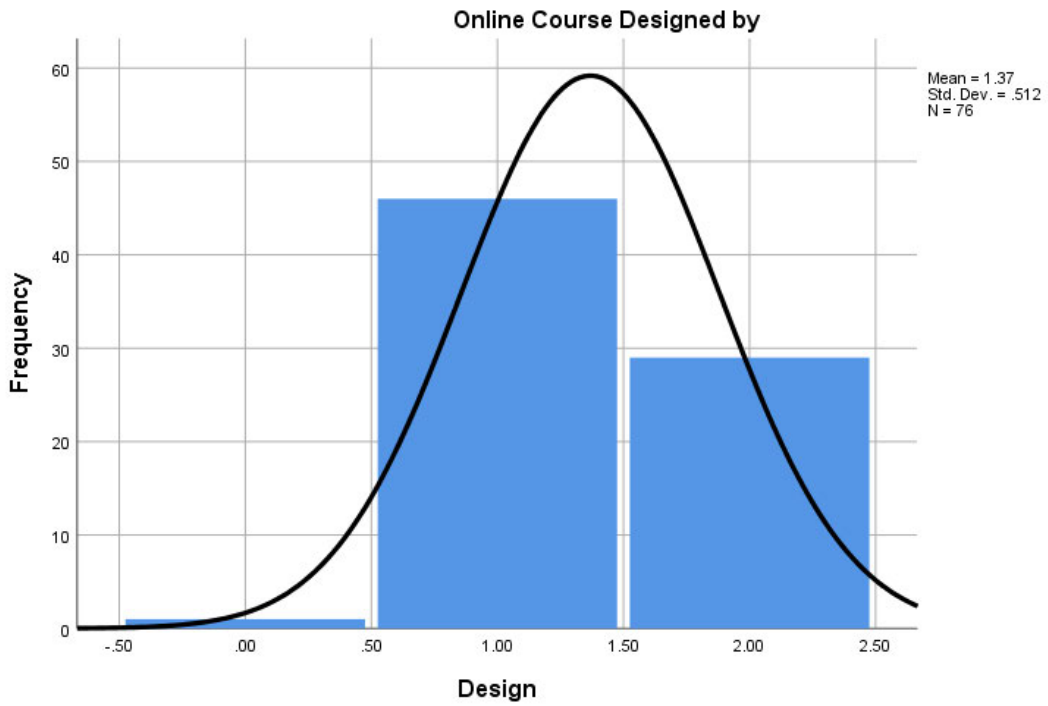
Employed at more than One School of Nursing *(N=76)*



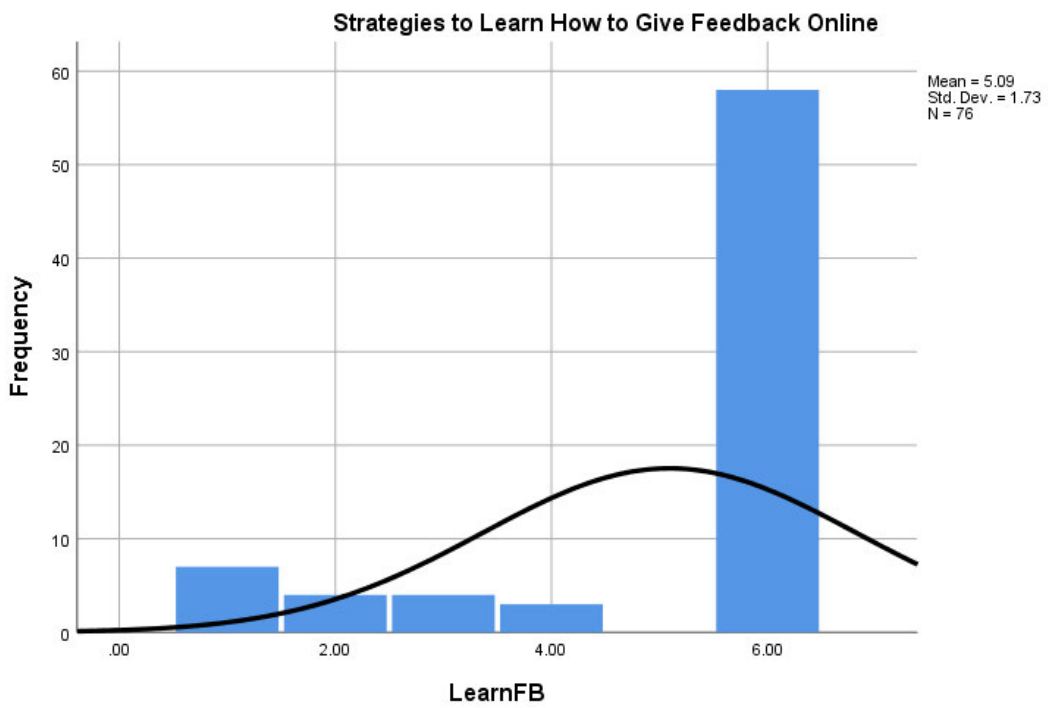
Employed at a Non-Teaching Job *(N=76)*



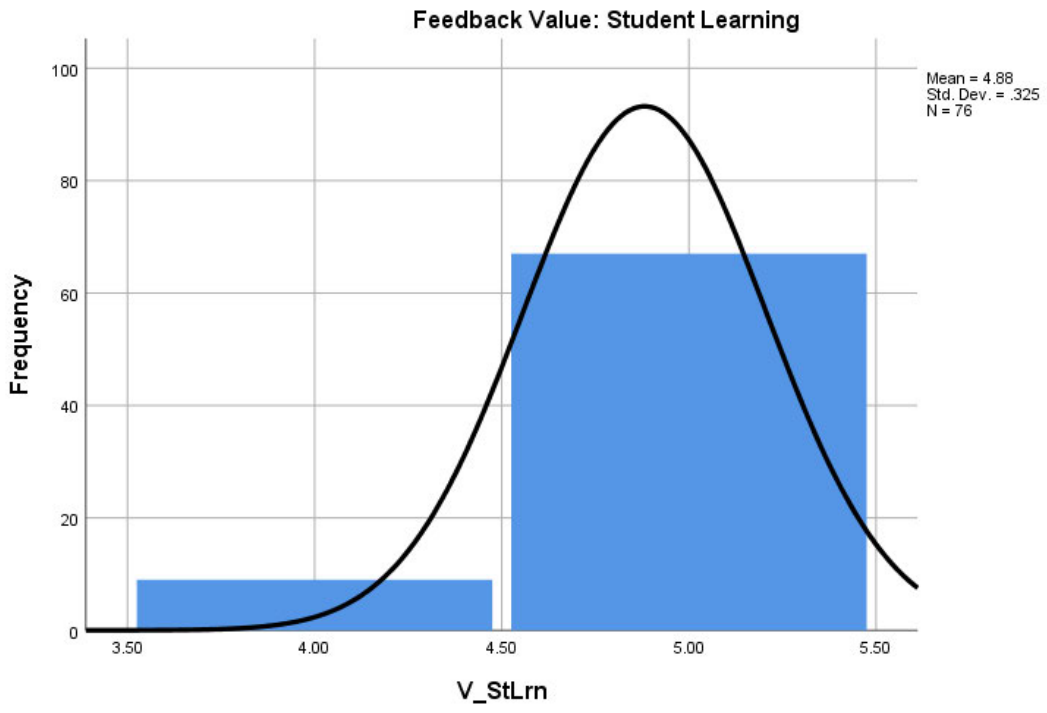
Online Course Designed by *(N=76)*



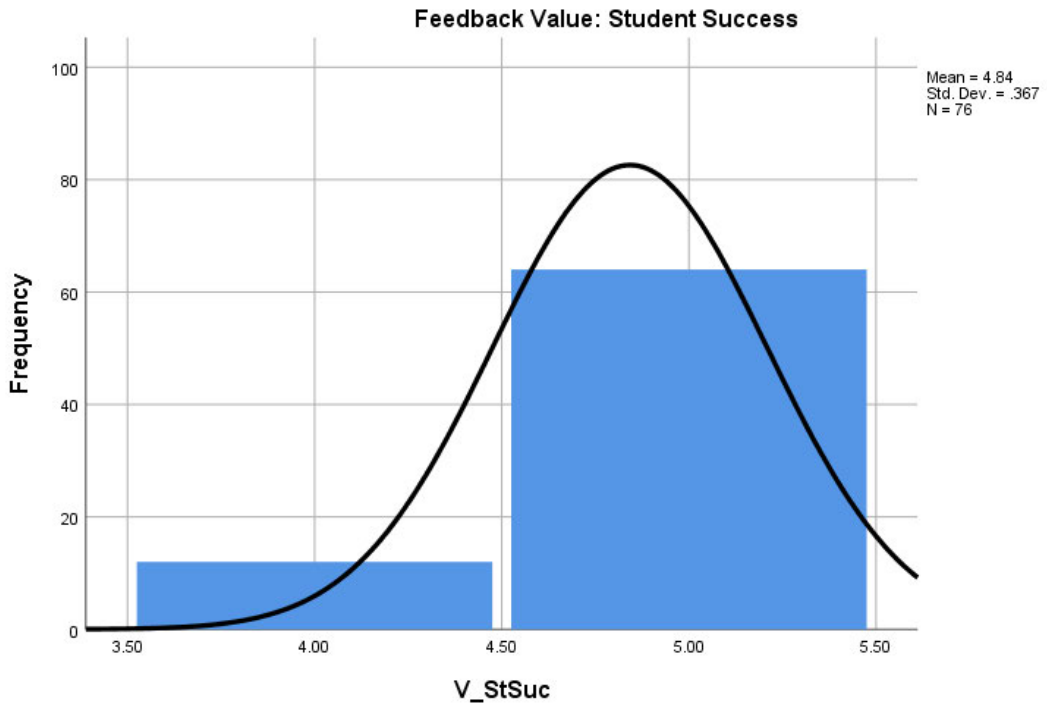
Strategies to Learn How to Give Feedback Online (N=76)



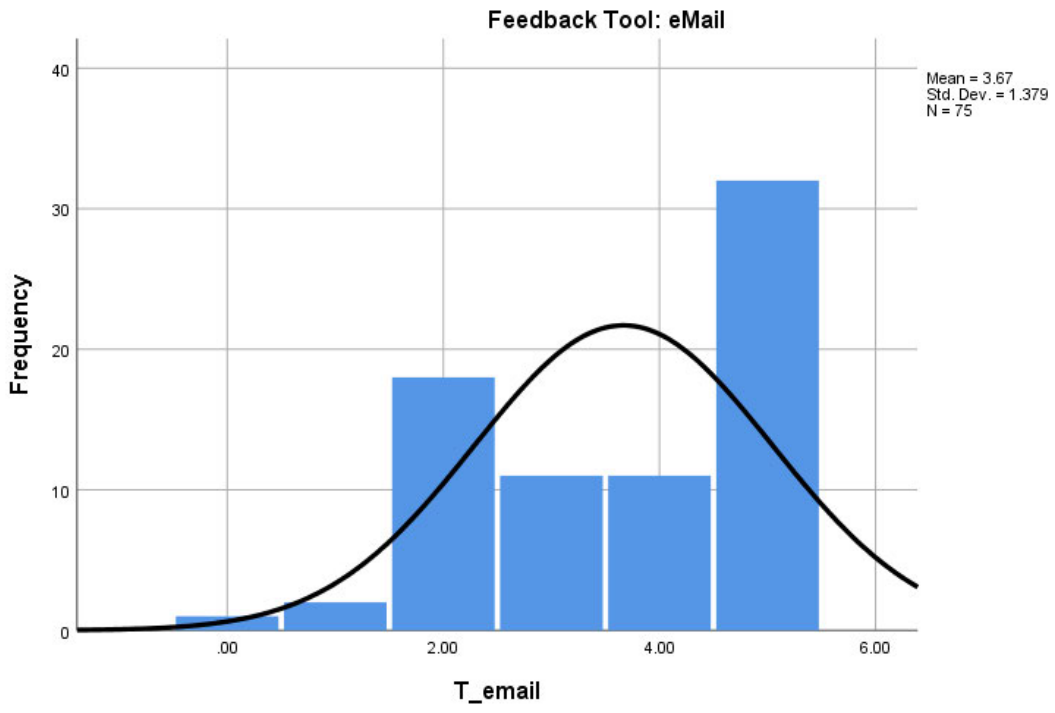
Feedback Value: Student Learning *(N=76)*



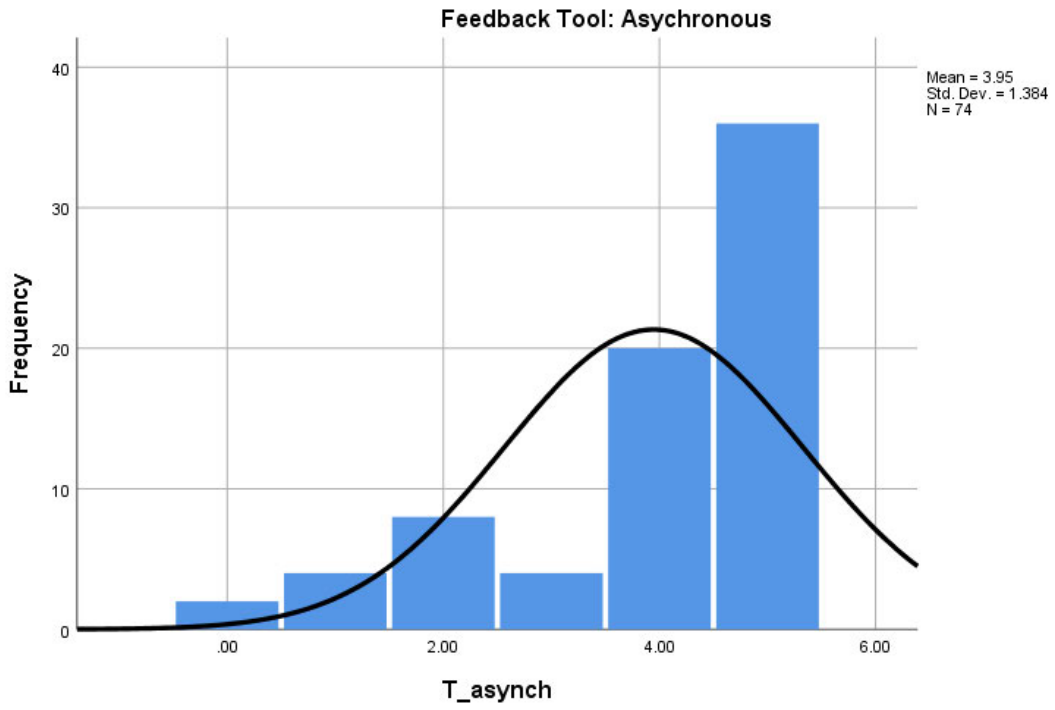
Feedback Value: Student Success *(N=76)*



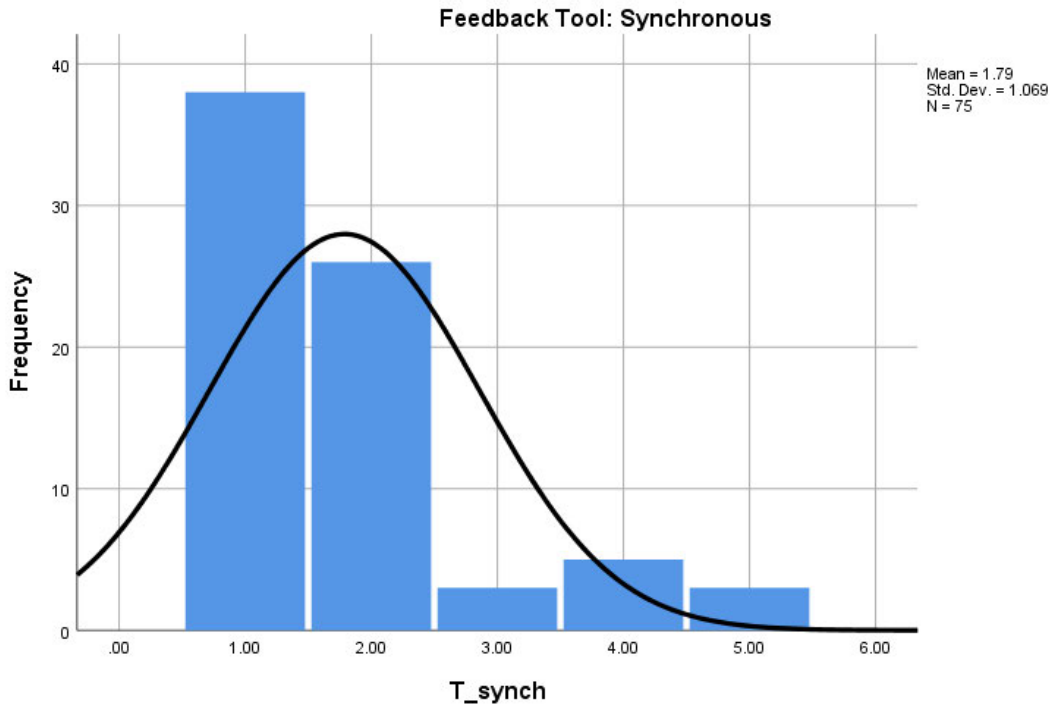
'Feedback Tool: eMail *(N=76)*



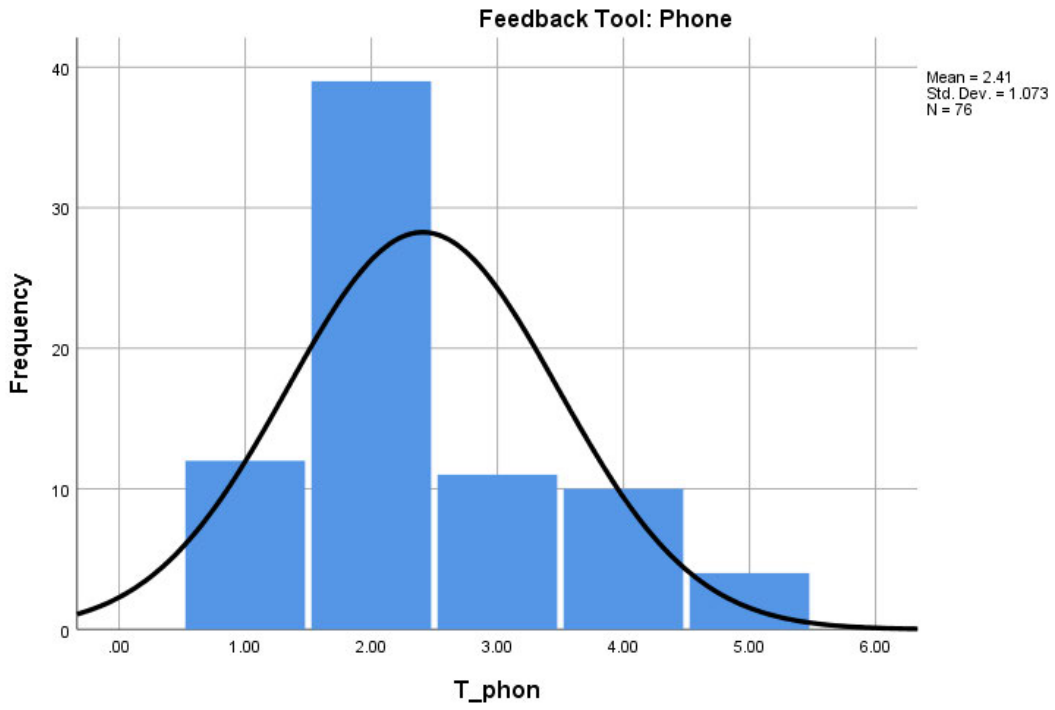
Feedback Tool: Asynchronous (N=76)



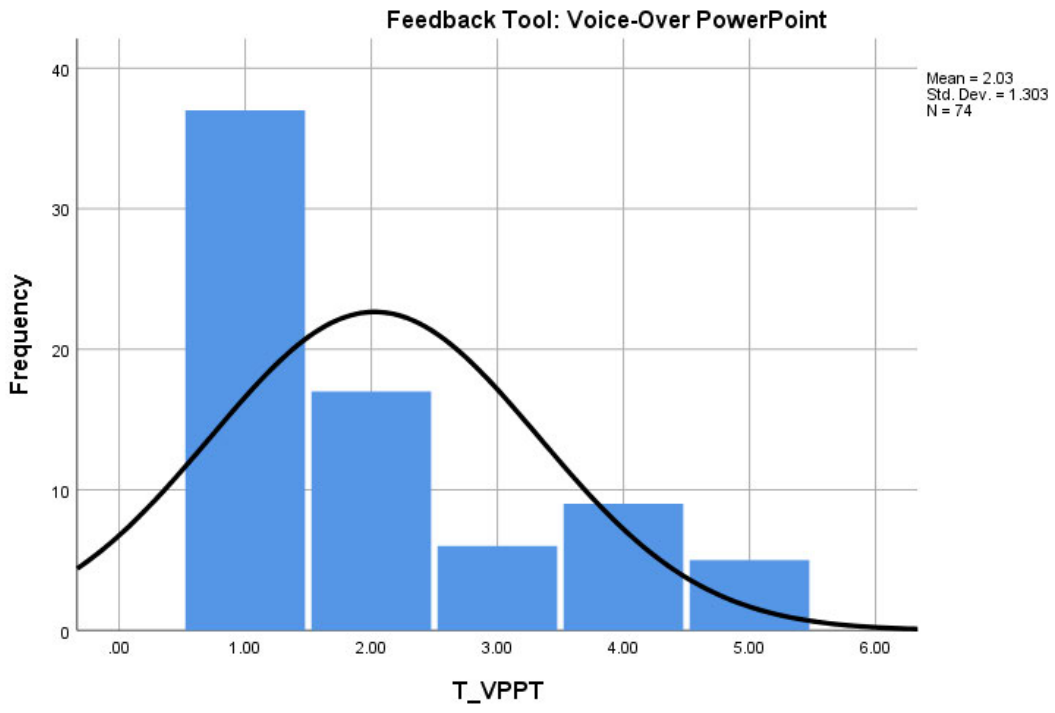
Feedback Tool: Synchronous *(N=76)*



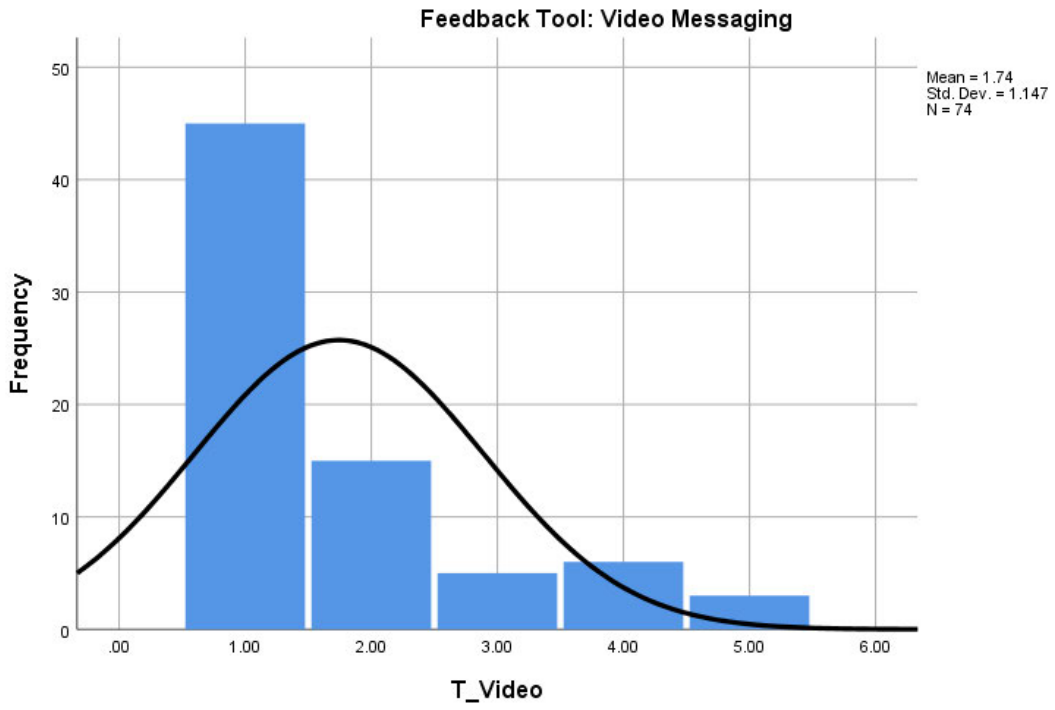
Feedback Tool: Phone *(N=76)*



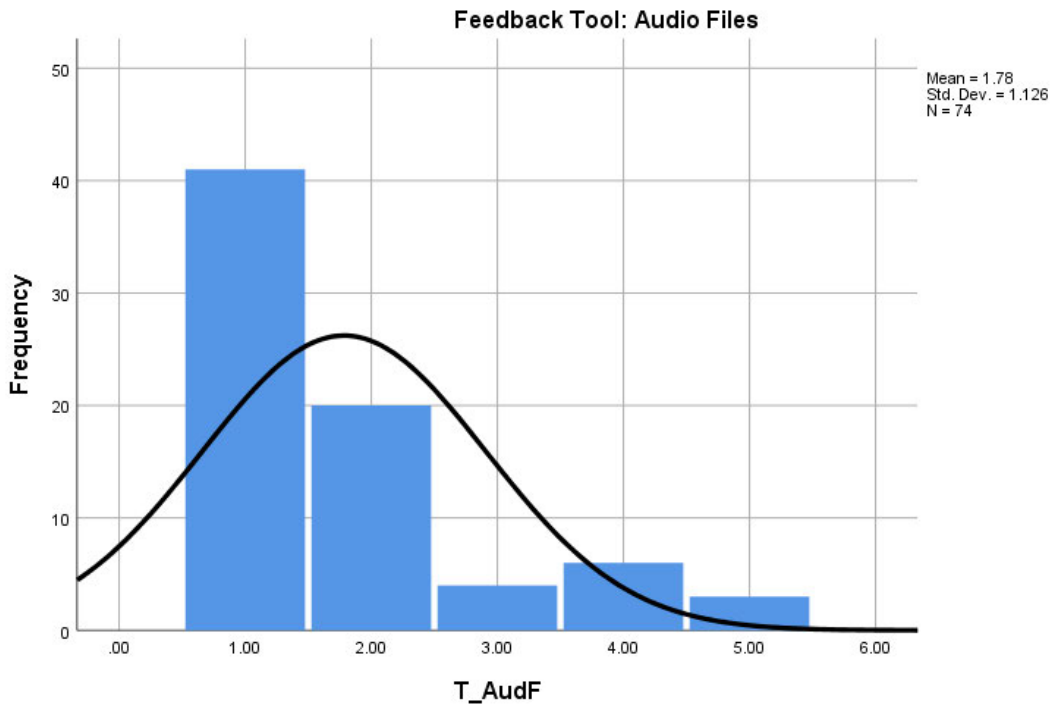
Feedback Tool: Voice-Over PowerPoint *(N=76)*



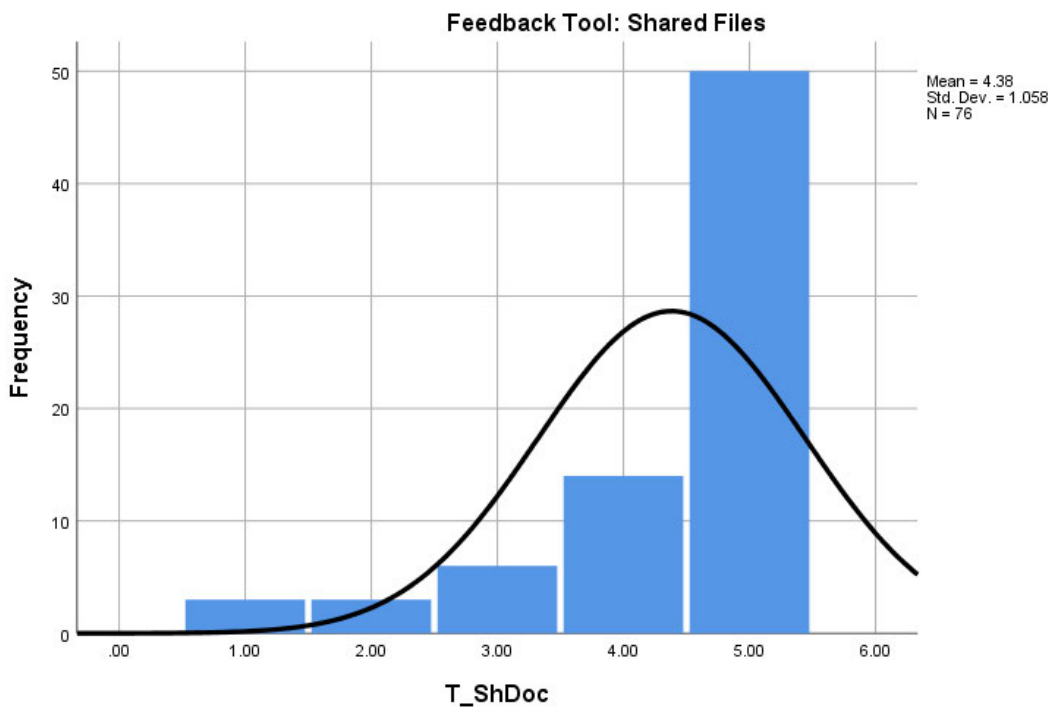
Feedback Tool: Video Messaging *(N=76)*



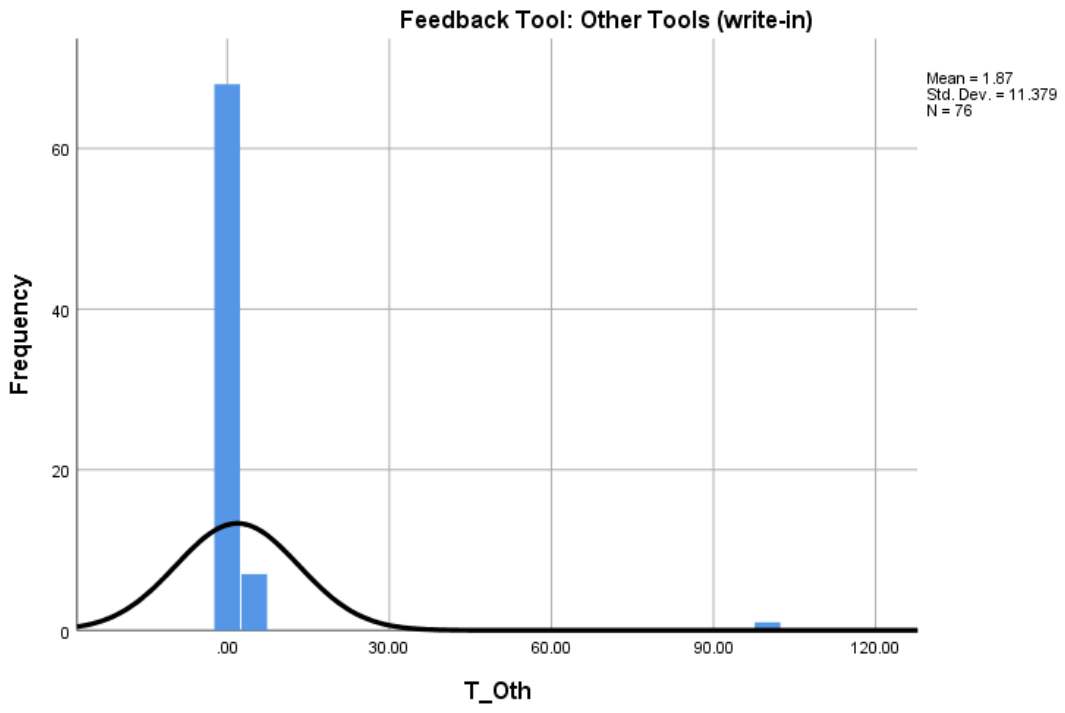
Feedback Tool: Audio Files *(N=76)*



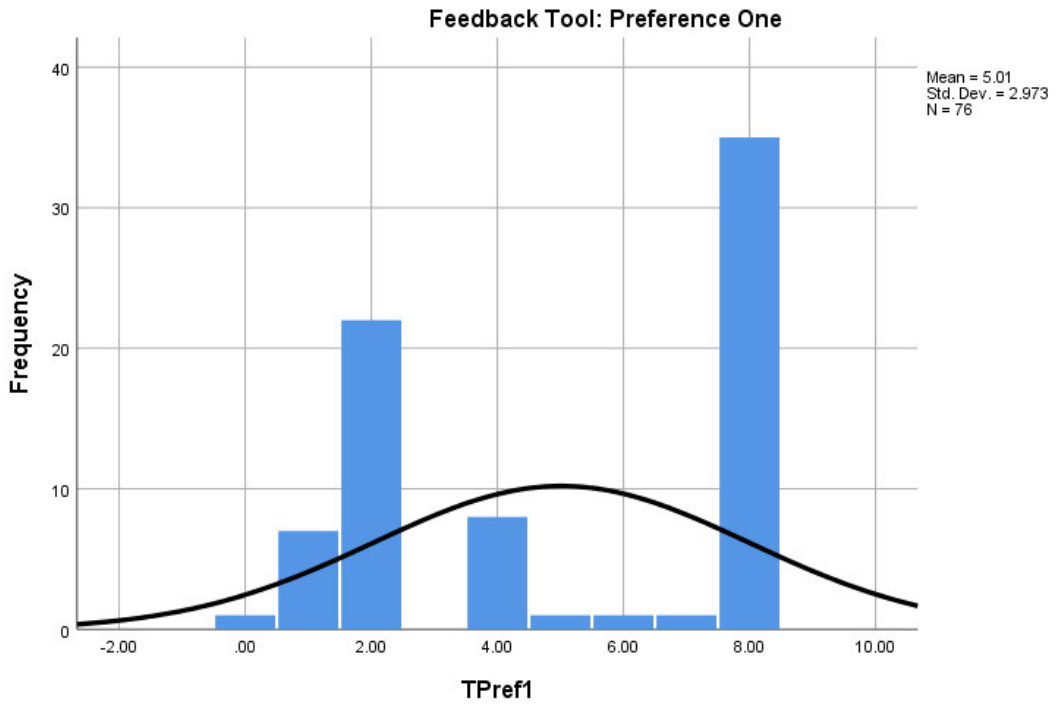
Feedback Tool: Shared Files *(N=76)*



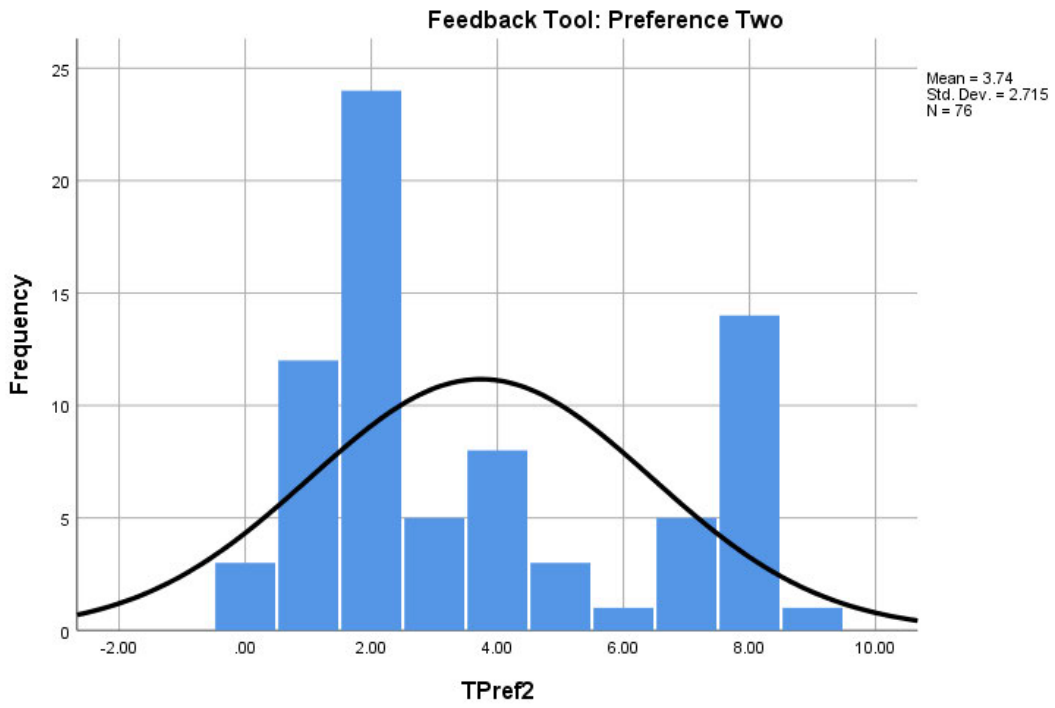
'Feedback Tool: Other Tools (write-in)



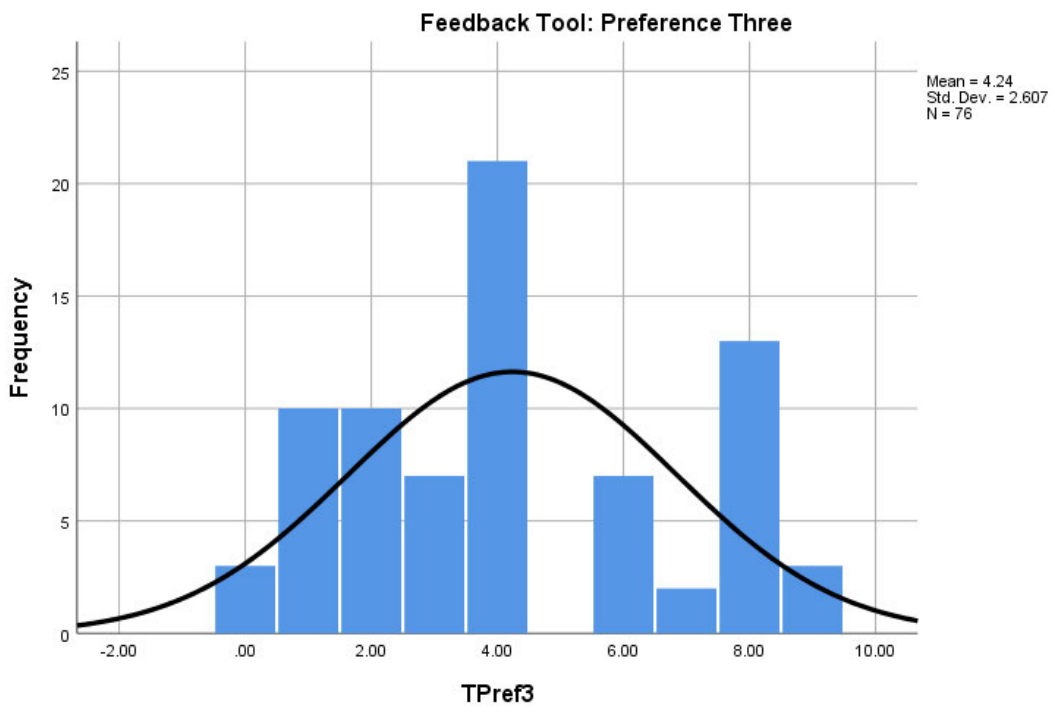
Feedback Tool: Preference One *(N=76)*



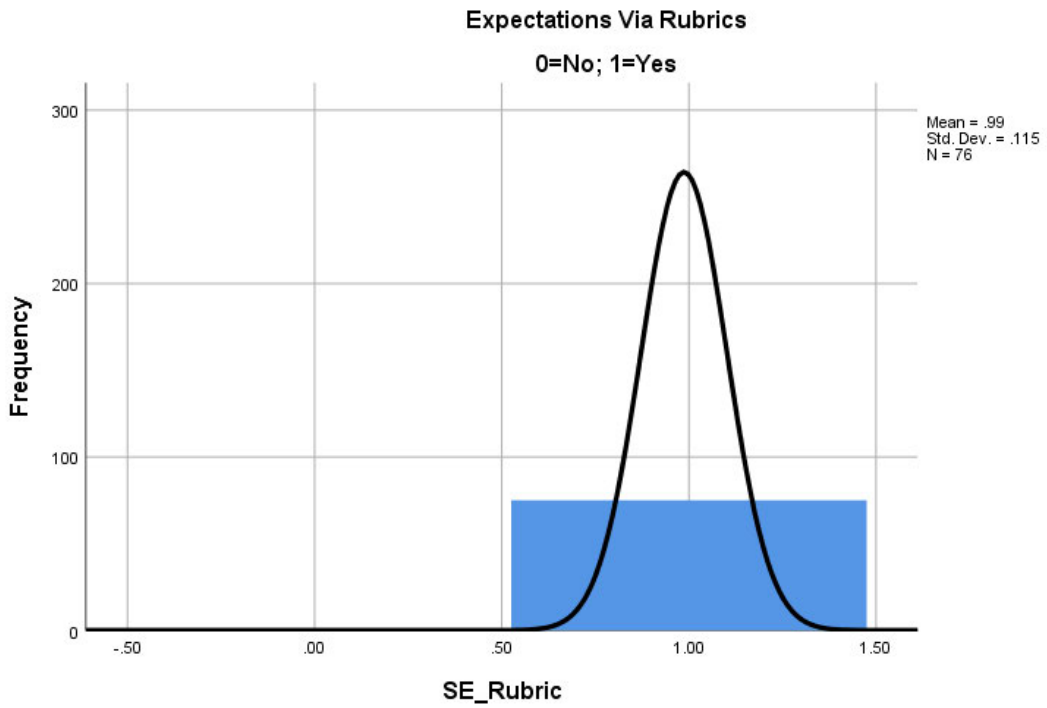
Feedback Tool: Preference Two *(N=76)*



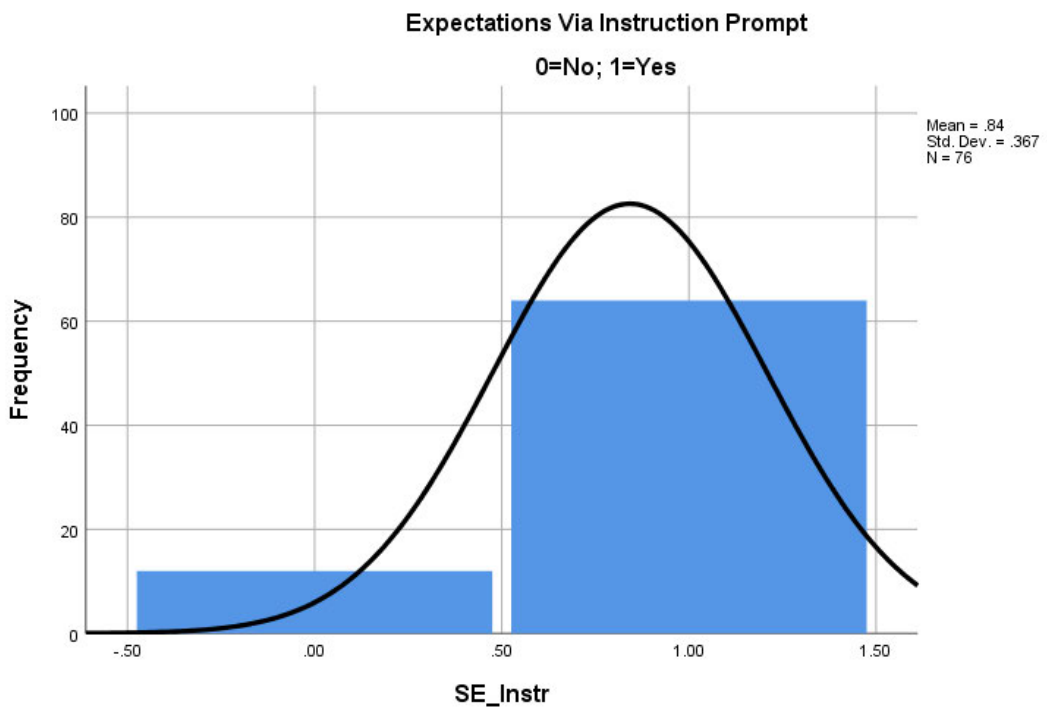
Feedback Tool: Preference Three *(N=76)*



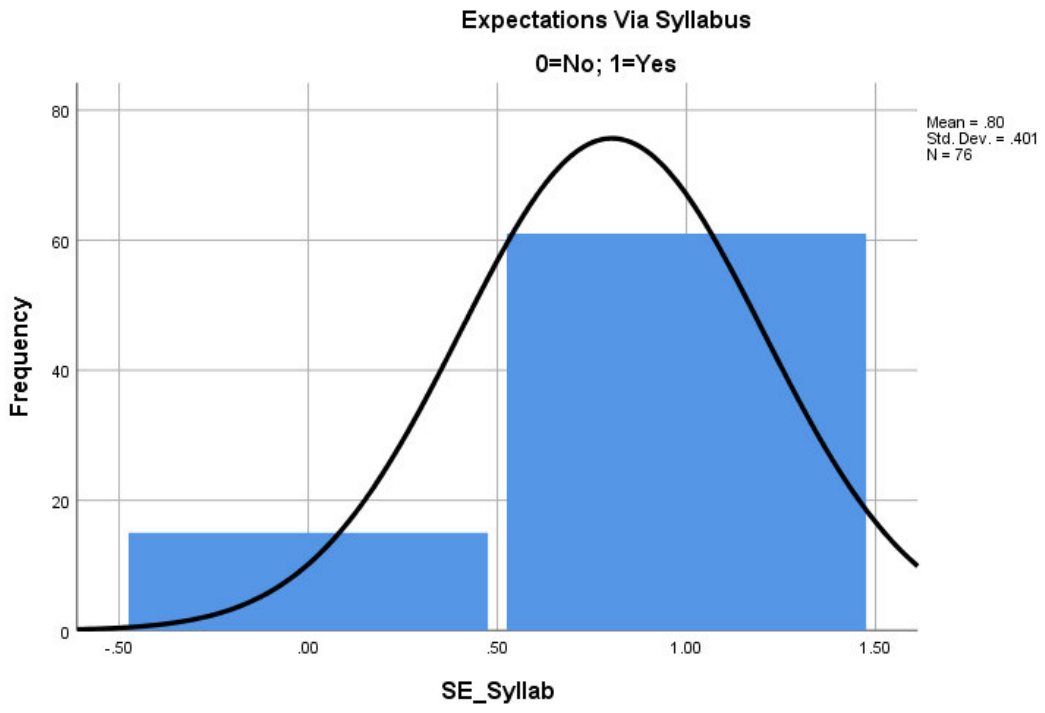
Expectations Via Rubrics *(N=76)*



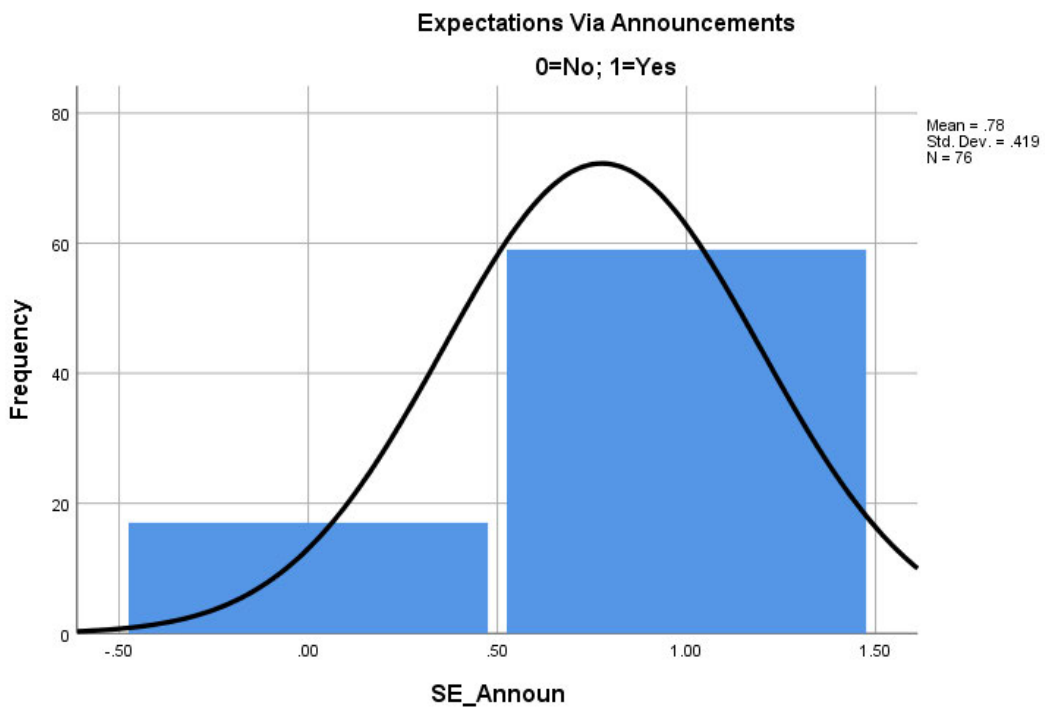
Expectations Via Instruction Prompt *(N=76)*



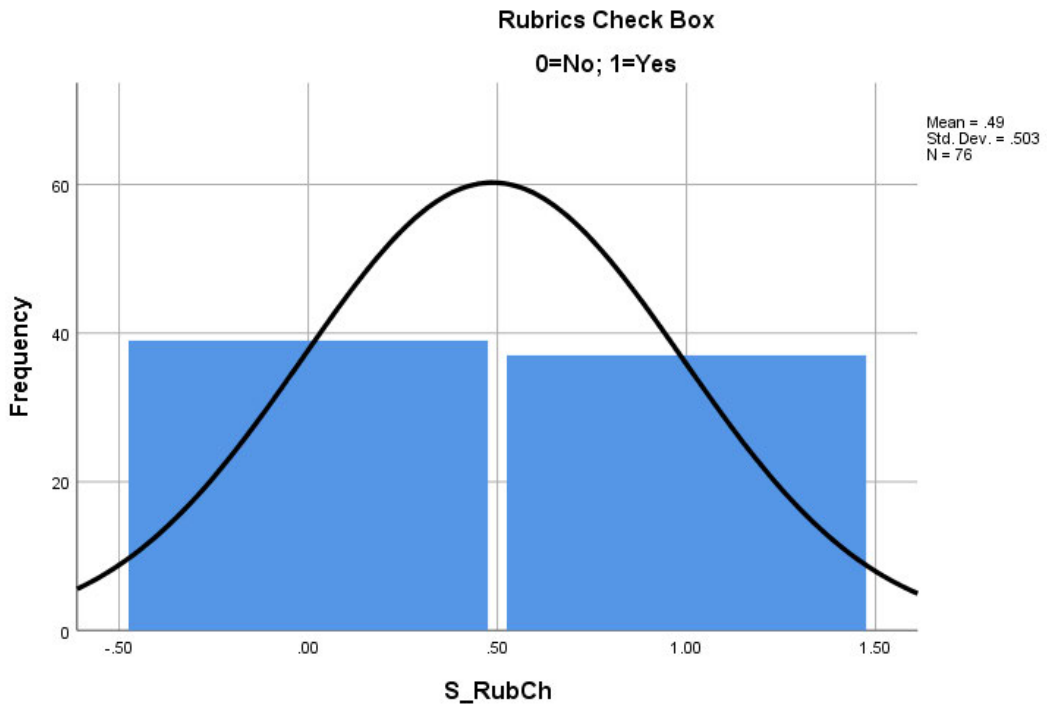
Expectations Via Syllabus *(N=76)*



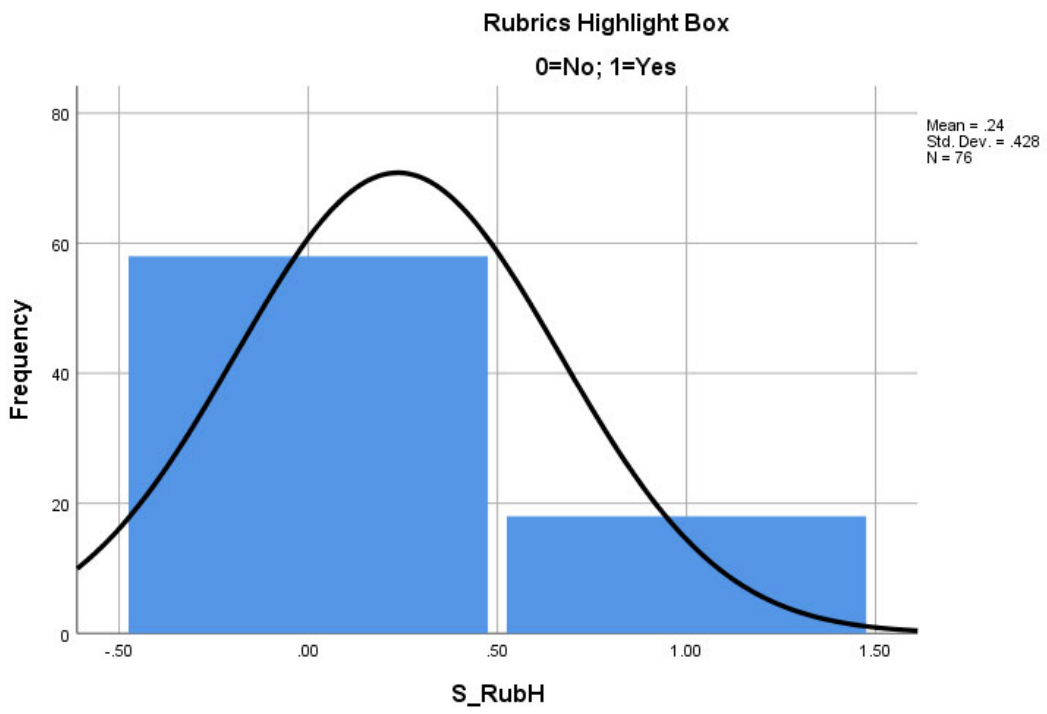
Expectations Via Announcements *(N=76)*



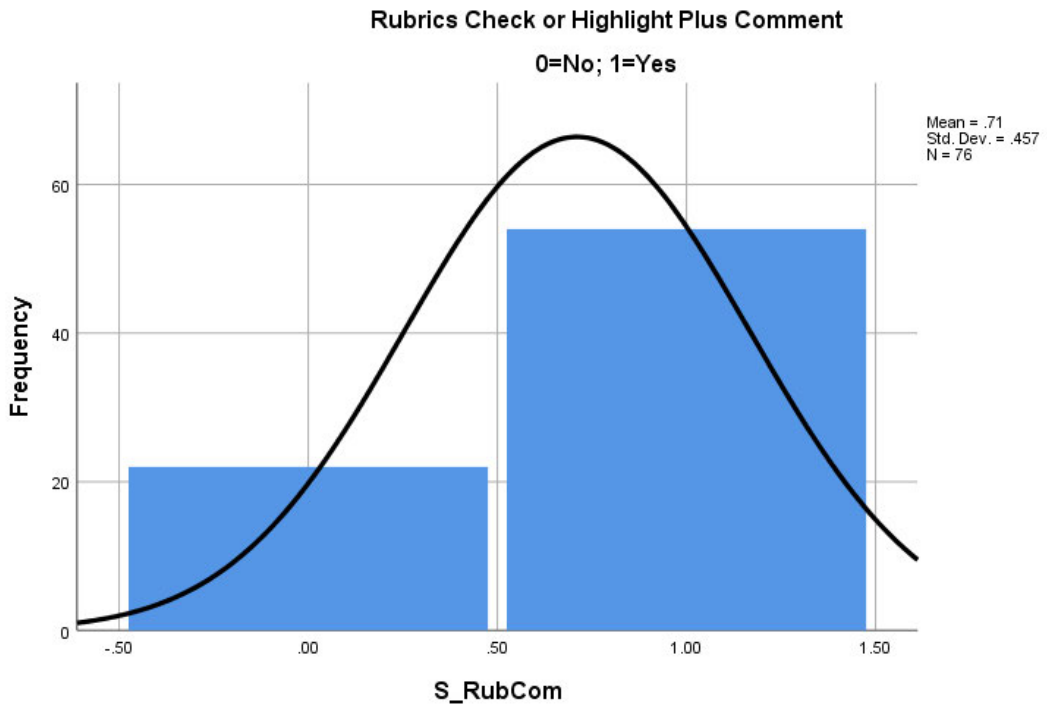
Rubrics Check Box *(N=76)*



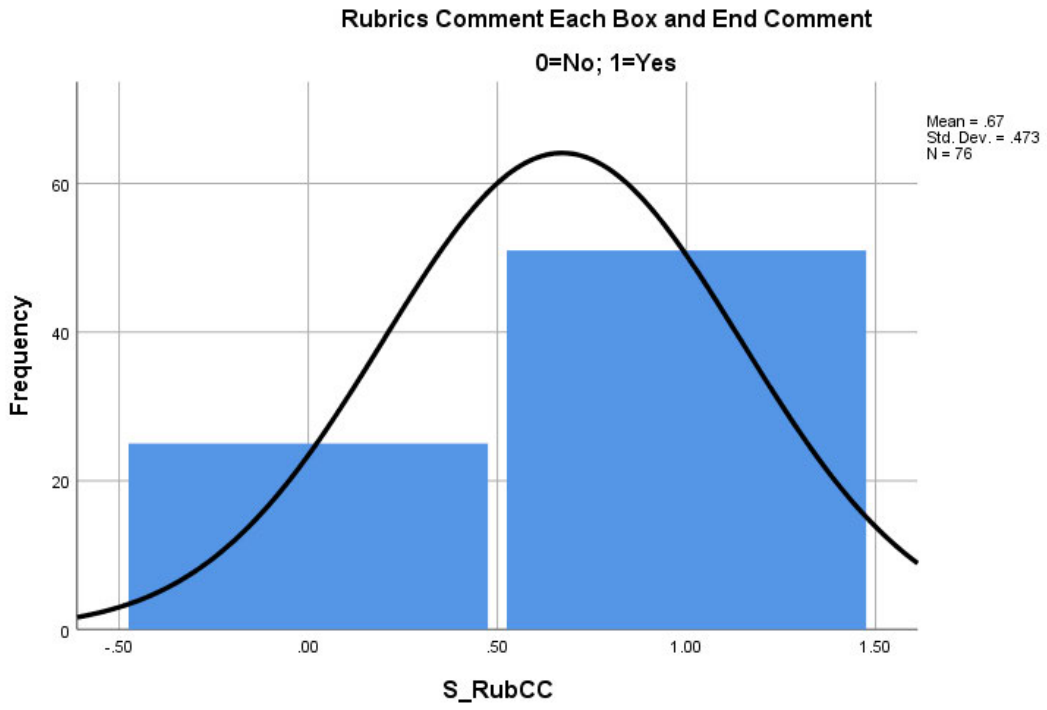
Rubrics Highlight Box *(N=76)*



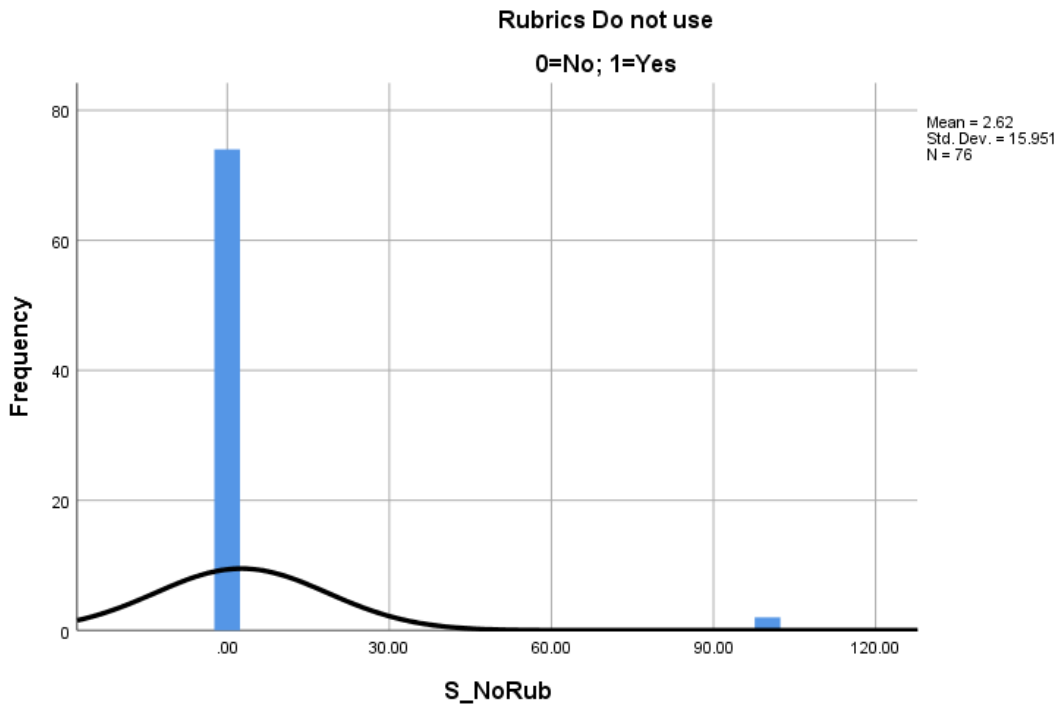
Rubrics Check or Highlight Plus Comment *(N=76)*



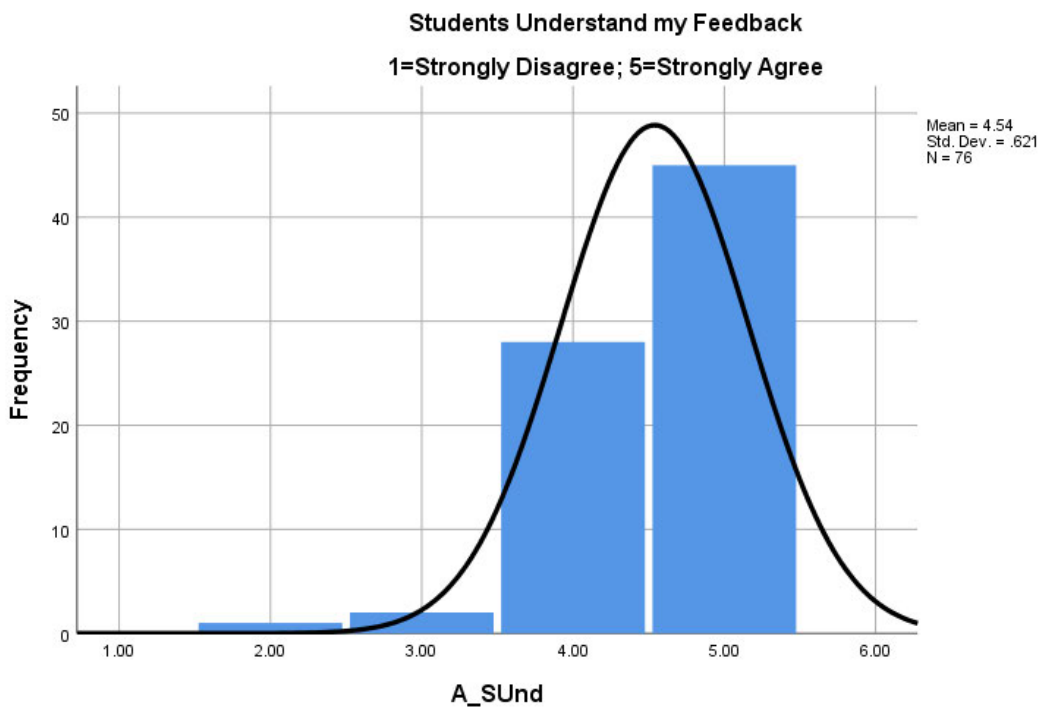
Rubrics Comment Each Box and End Comment *(N=76)*



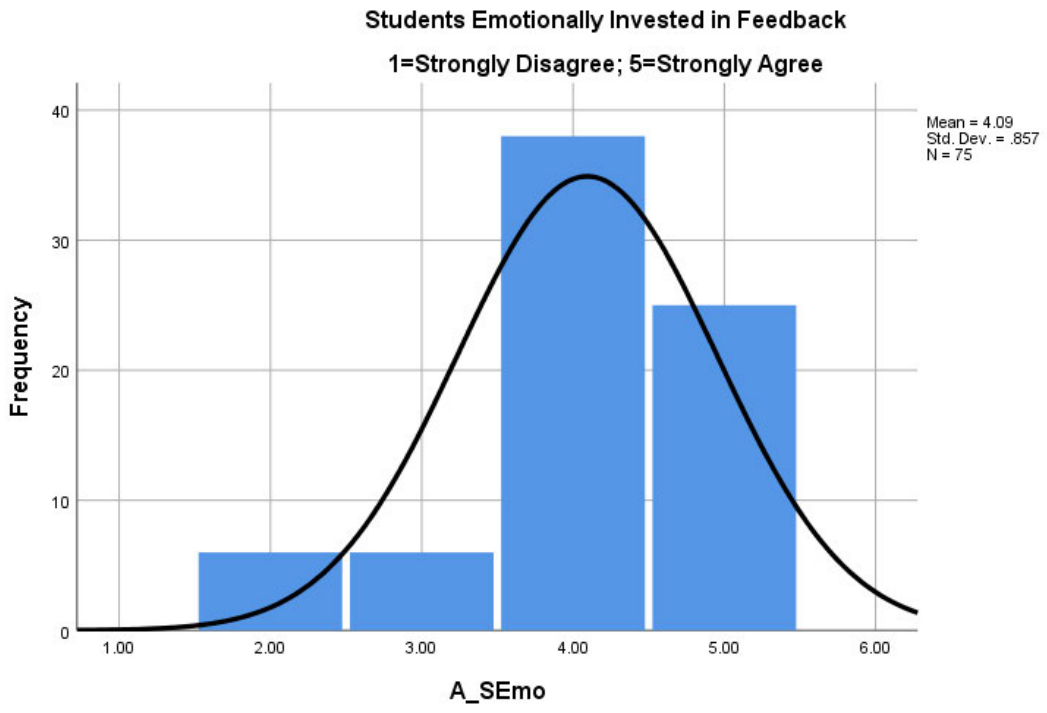
Rubrics Do not use *(N=76)*



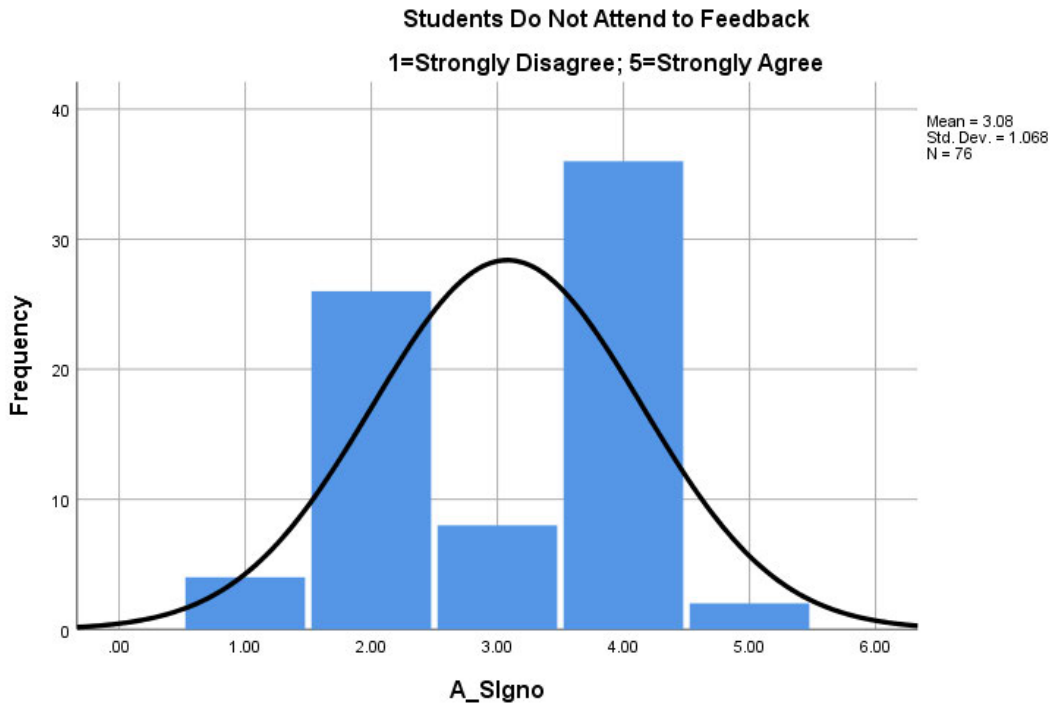
Students Understand my Feedback *(N=76)*



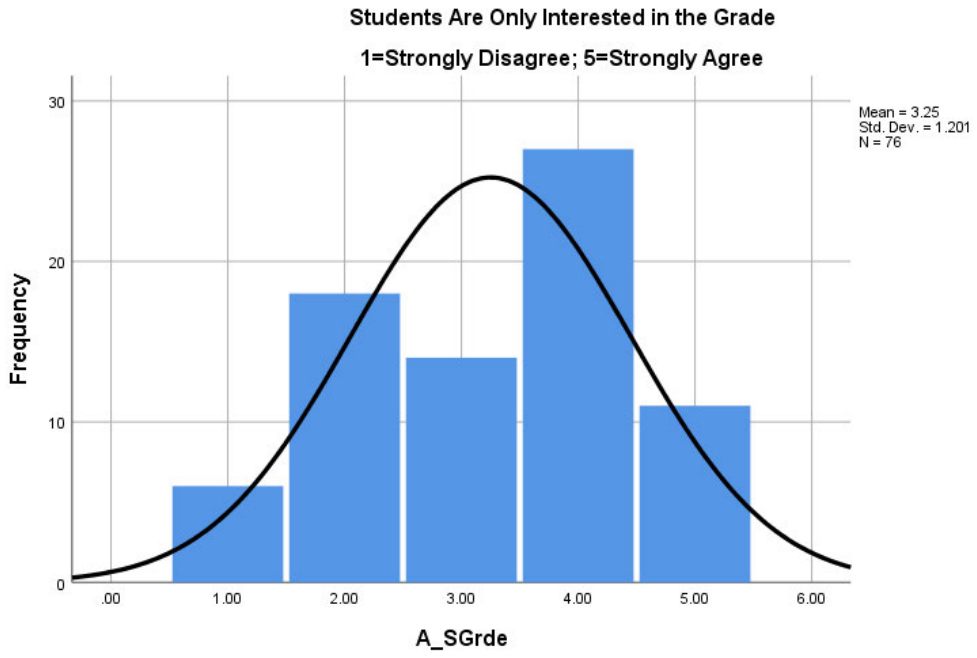
Students Emotionally Invested in Feedback *(N=76)*



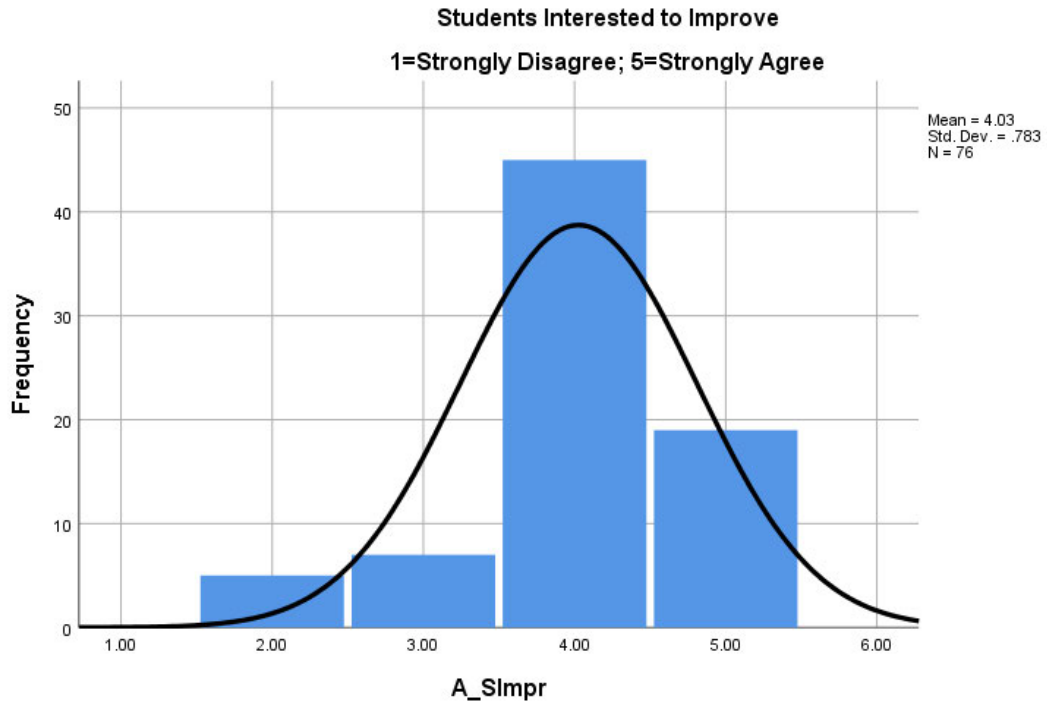
Students Do Not Attend to Feedback *(N=76)*



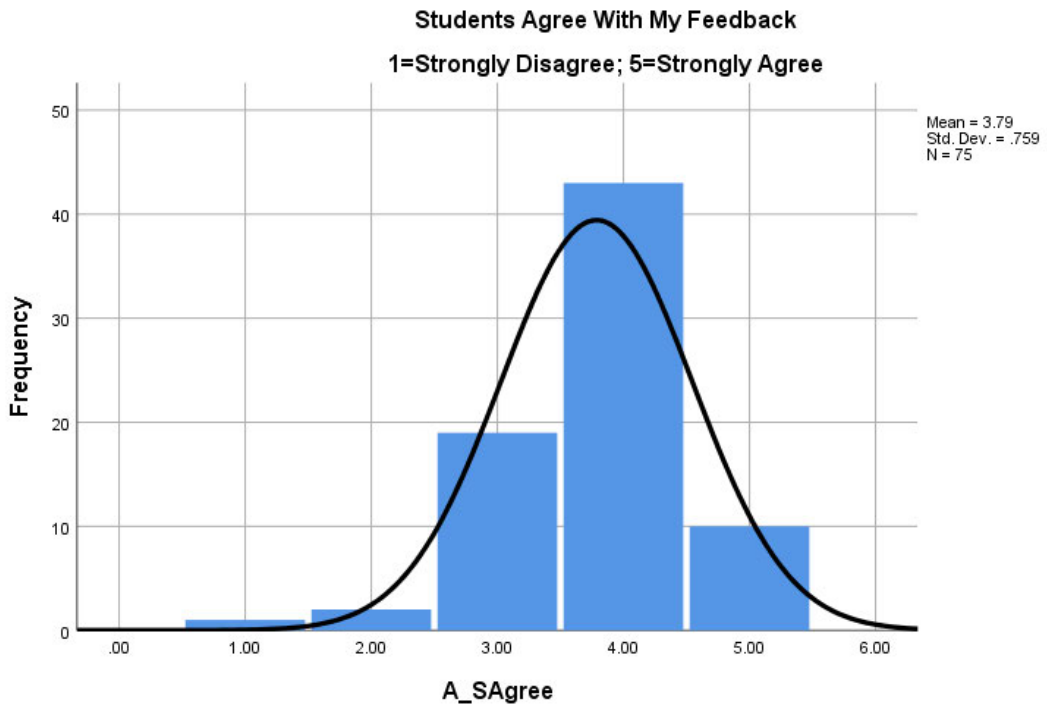
Students Are Only Interested in the Grade *(N=76)*



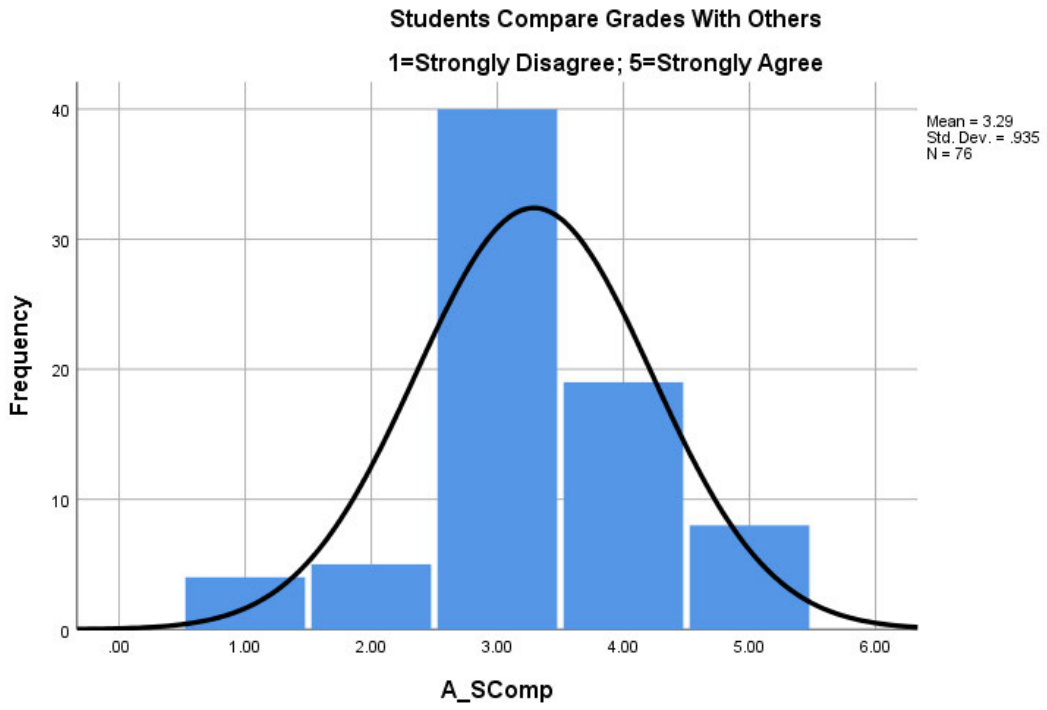
Students Interested to Improve *(N=76)*



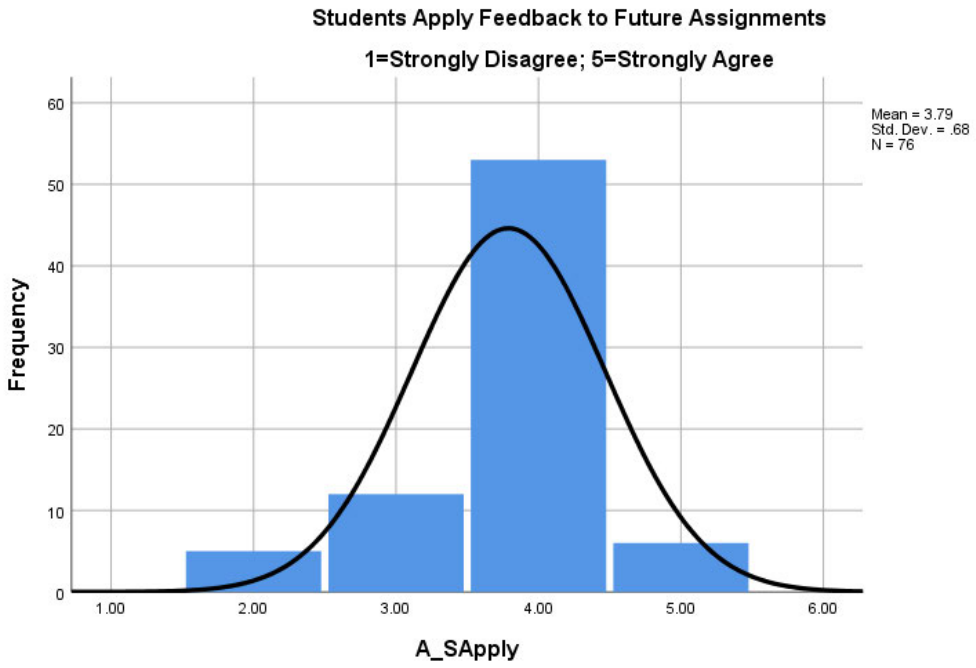
Students Agree With My Feedback *(N=76)*



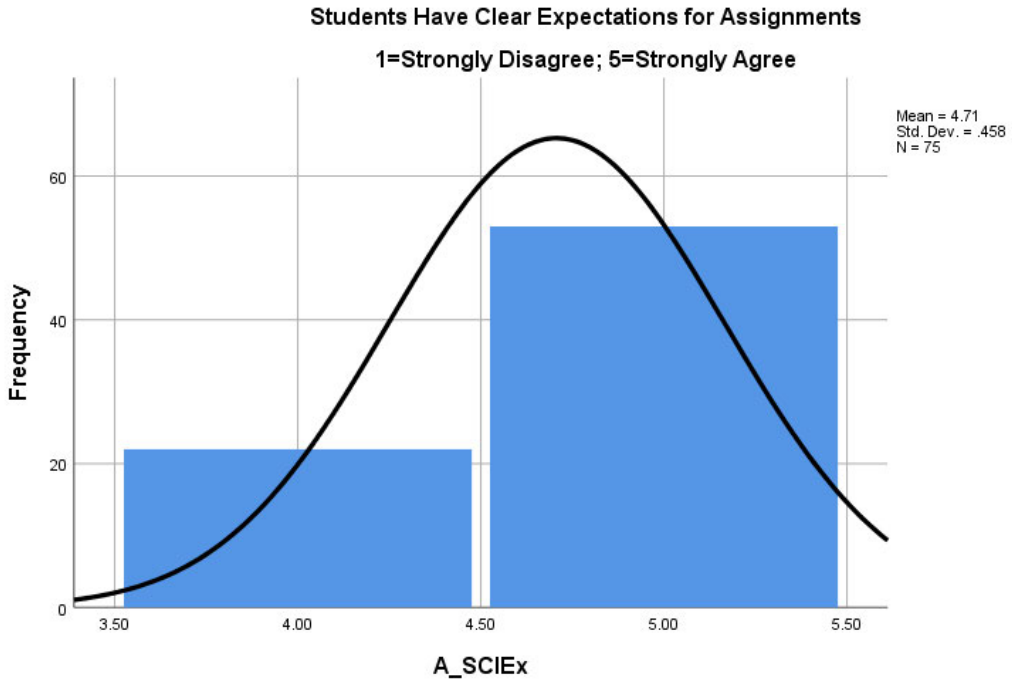
Students Compare Grades With Others *(N=76)*.



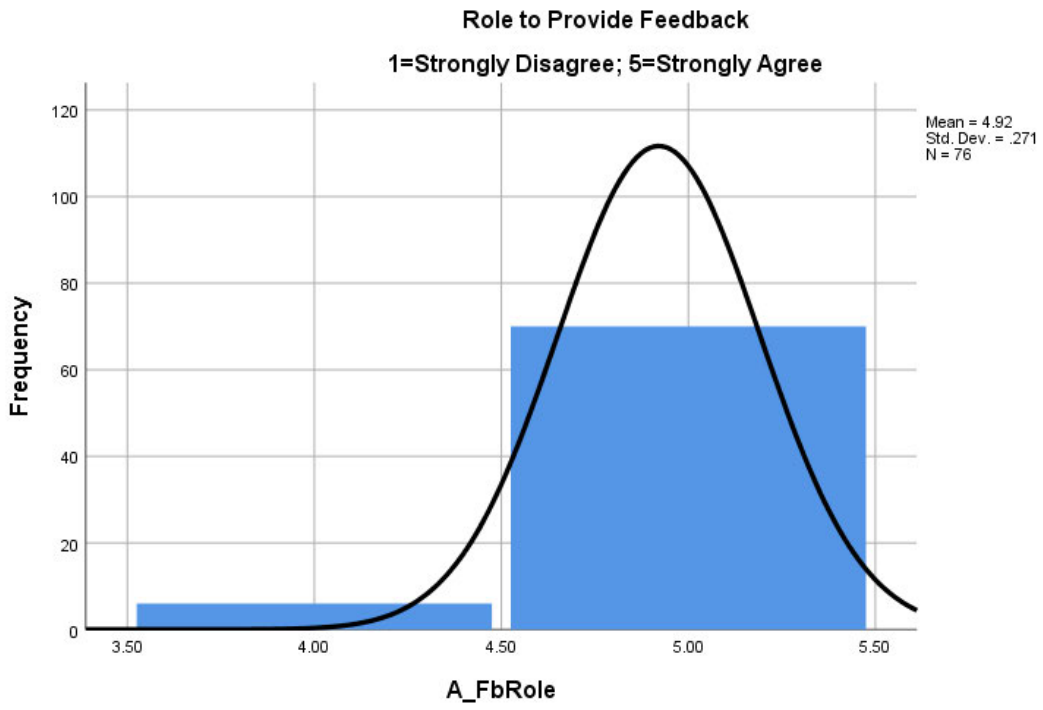
Students Apply Feedback to Future Assignments *(N=76)*



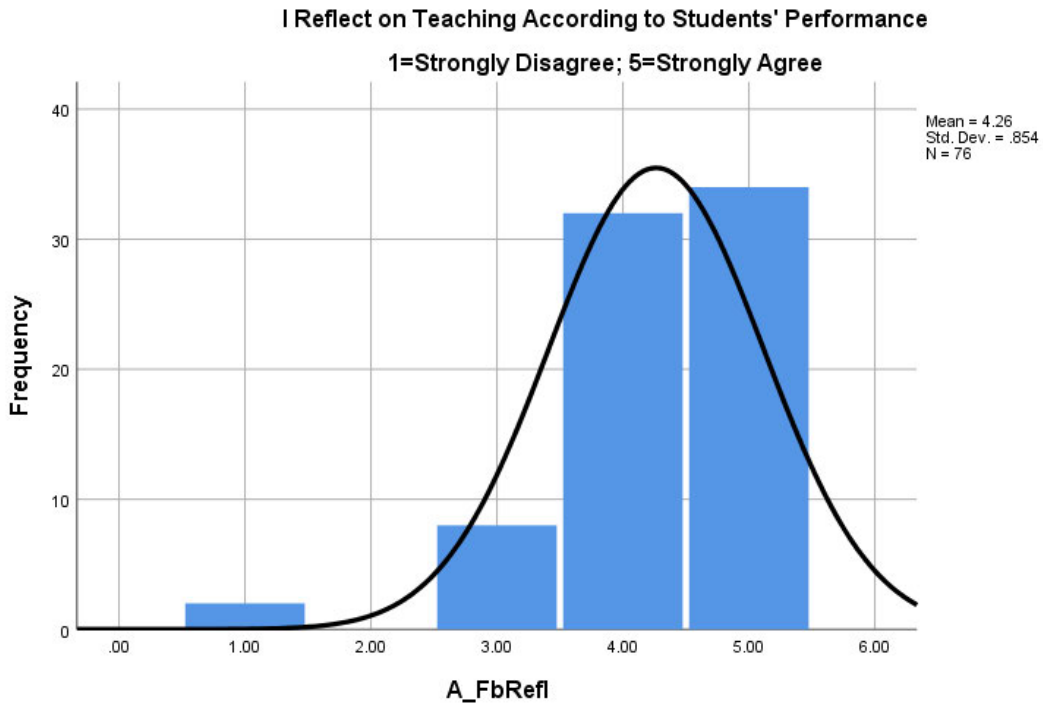
Students Have Clear Expectations for Assignments *(N=76)*



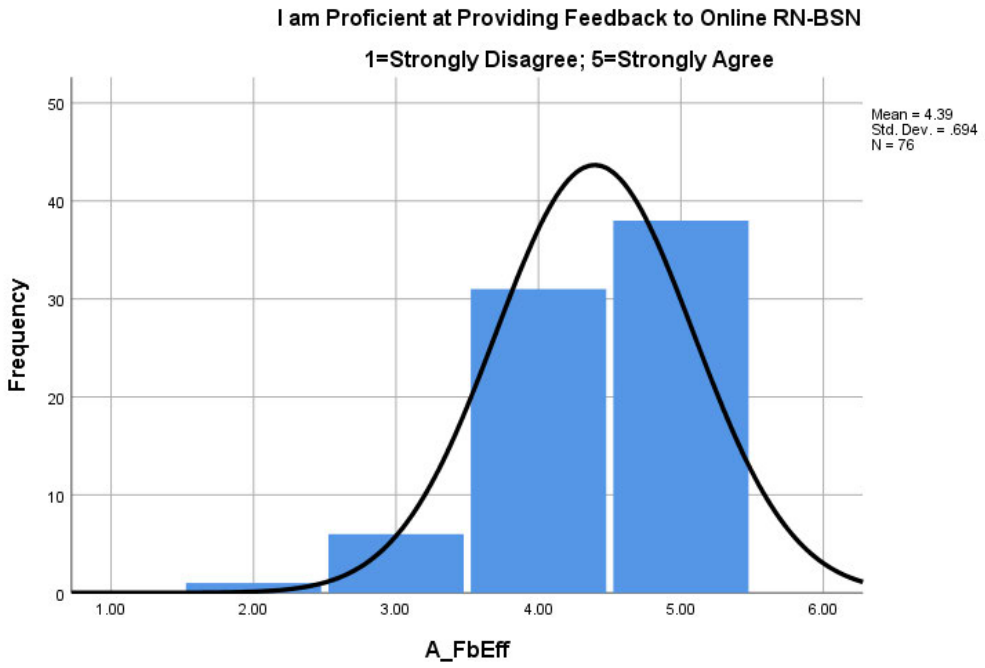
Role to Provide Feedback *(N=76)*



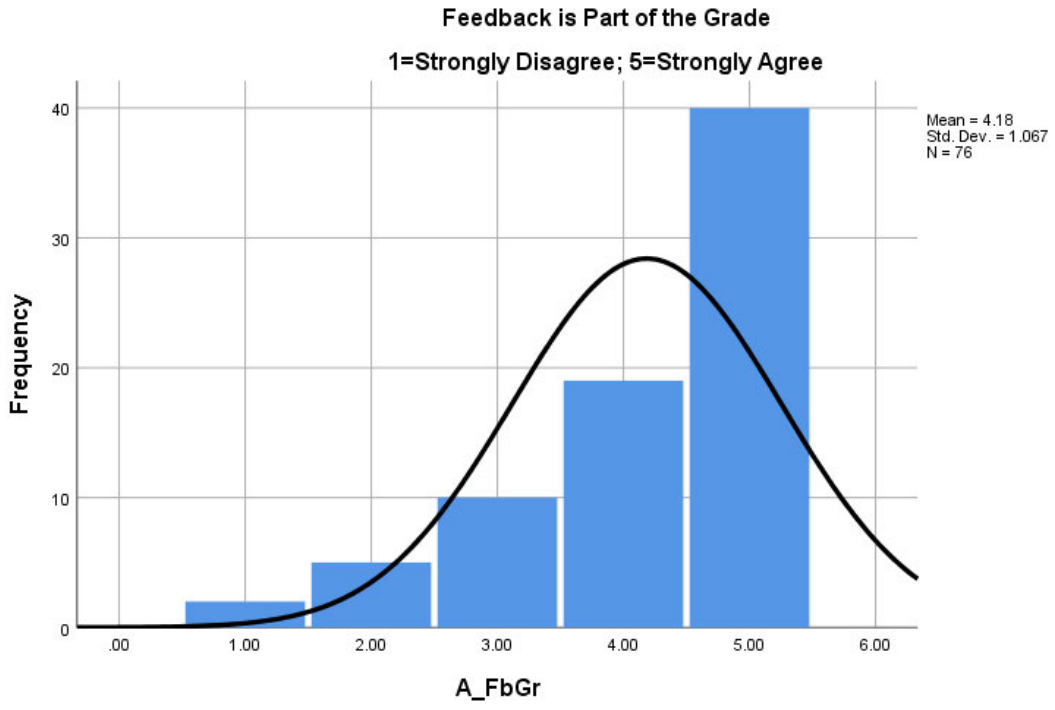
I Reflect on Teaching According to Students' Performance *(N=76)*



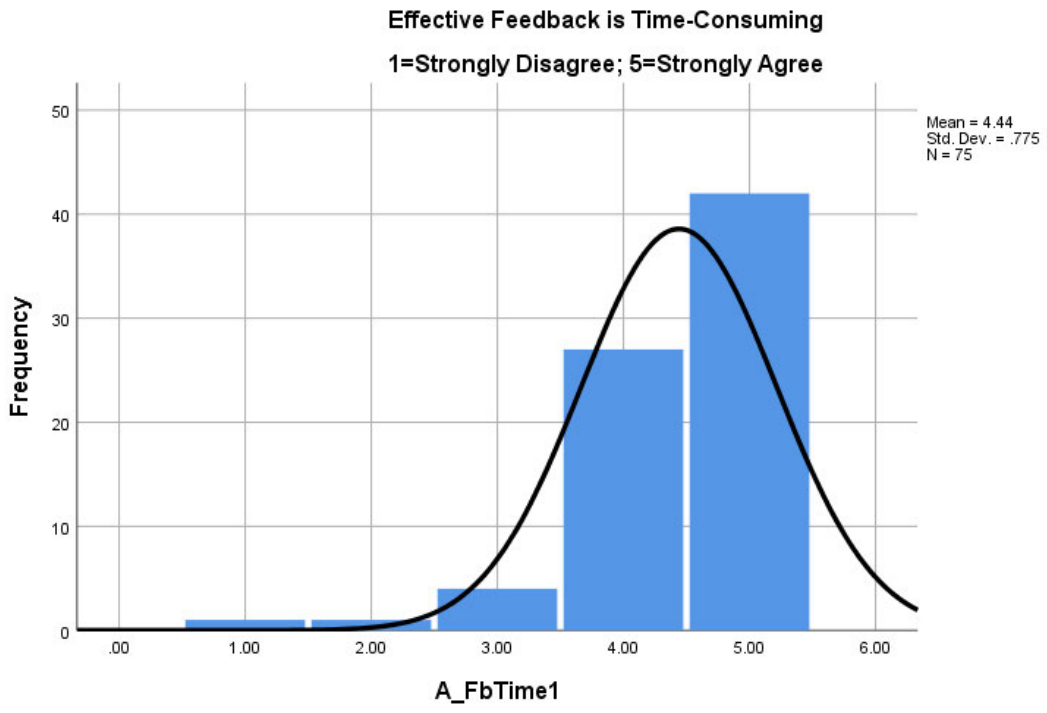
I am Proficient at Providing Feedback to Online RN-BSN *(N=76)*



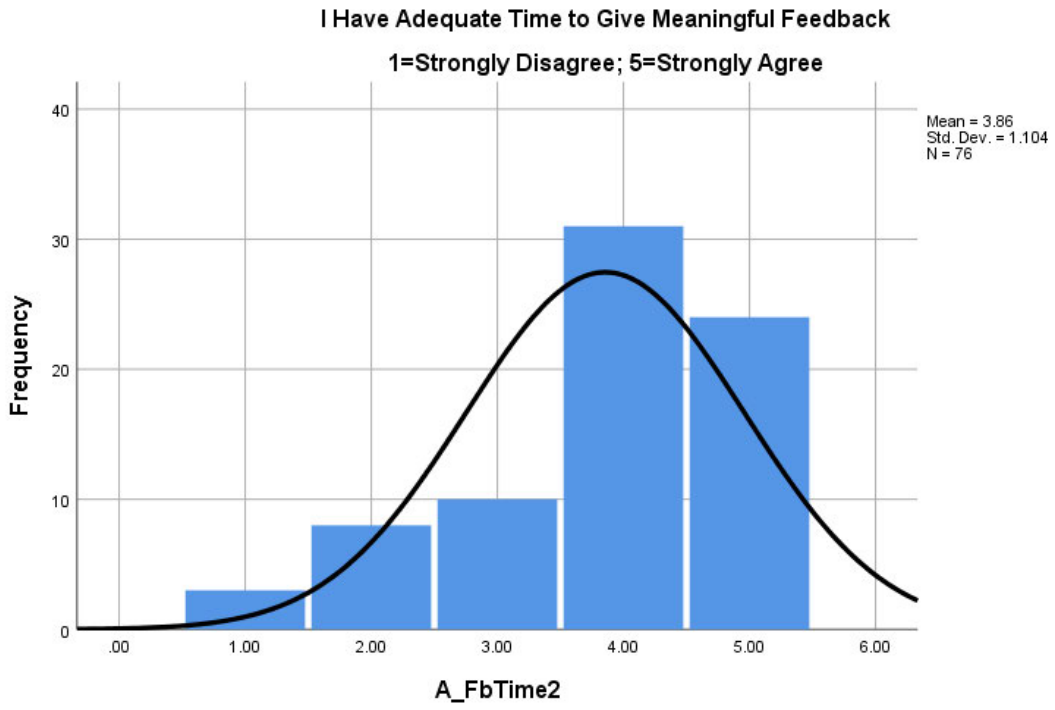
Feedback is Part of the Grade *(N=76)*



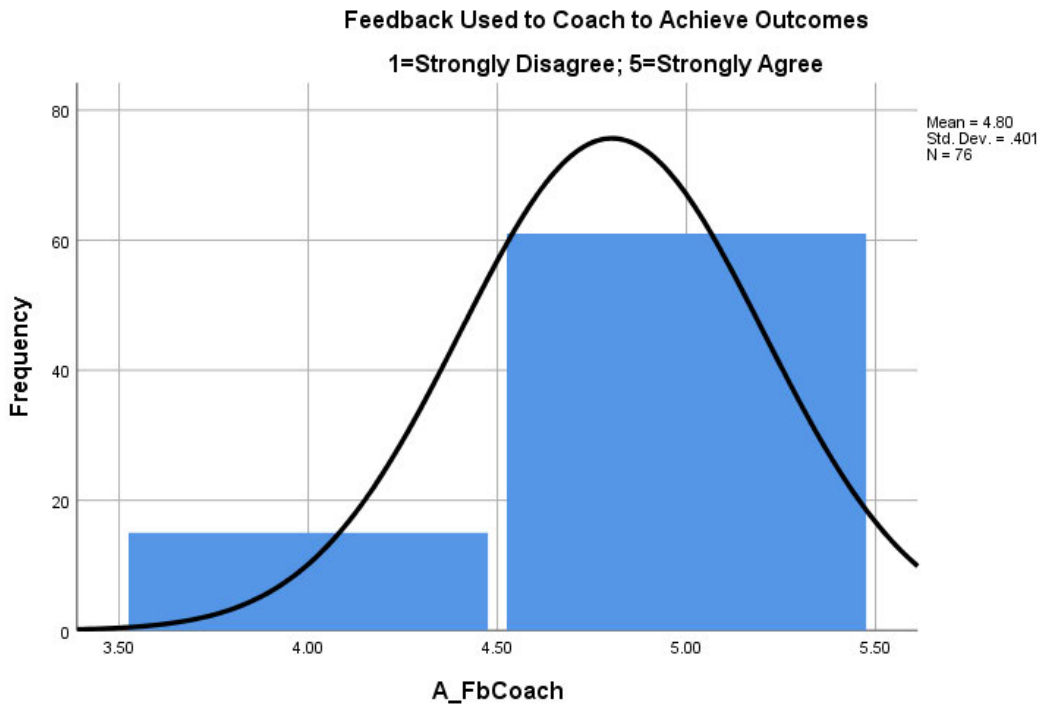
Effective Feedback is Time-Consuming *(N=76)*



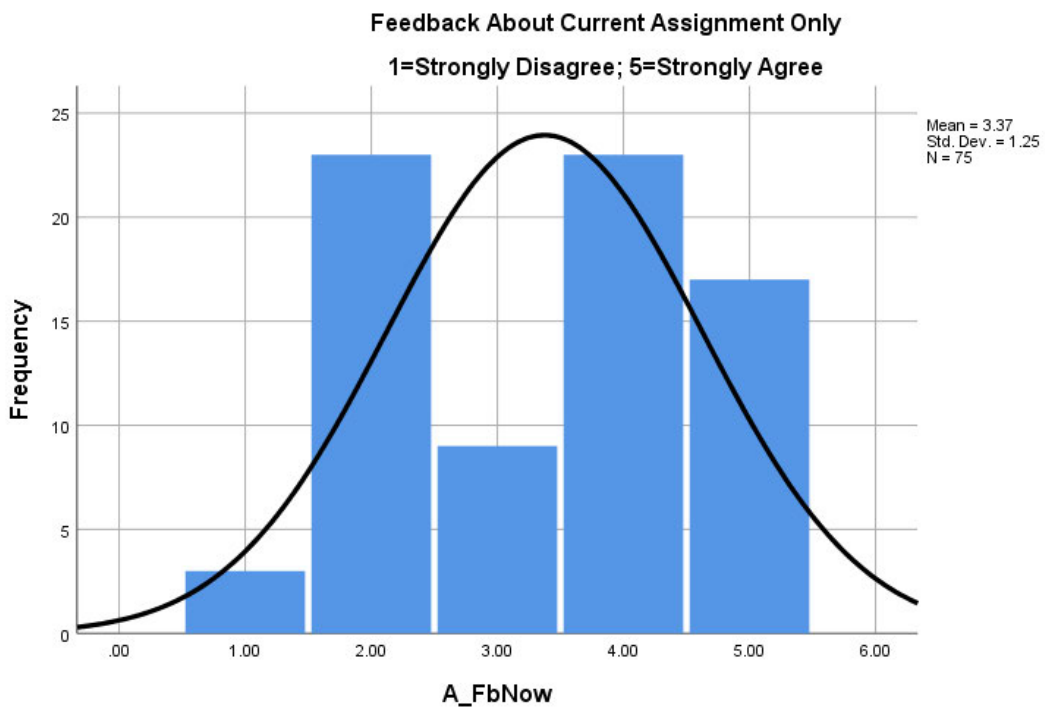
I Have Adequate Time to Give Meaningful Feedback *(N=76)*



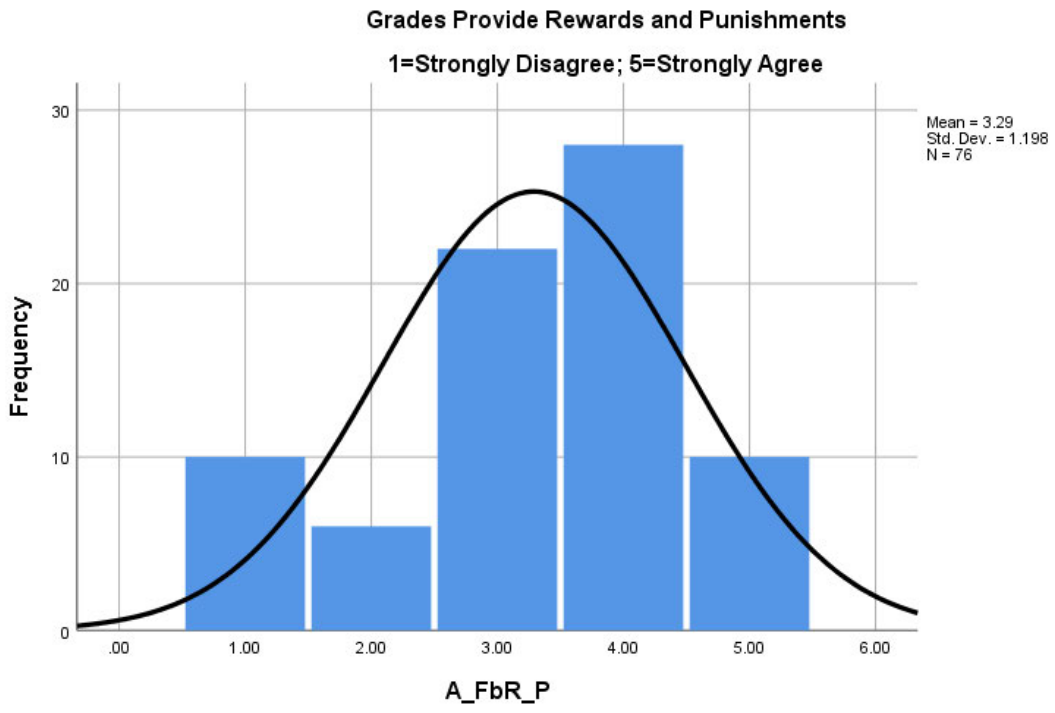
Feedback Used to Coach to Achieve Outcomes *(N=76)*



Feedback About Current Assignment Only *(N=76)*

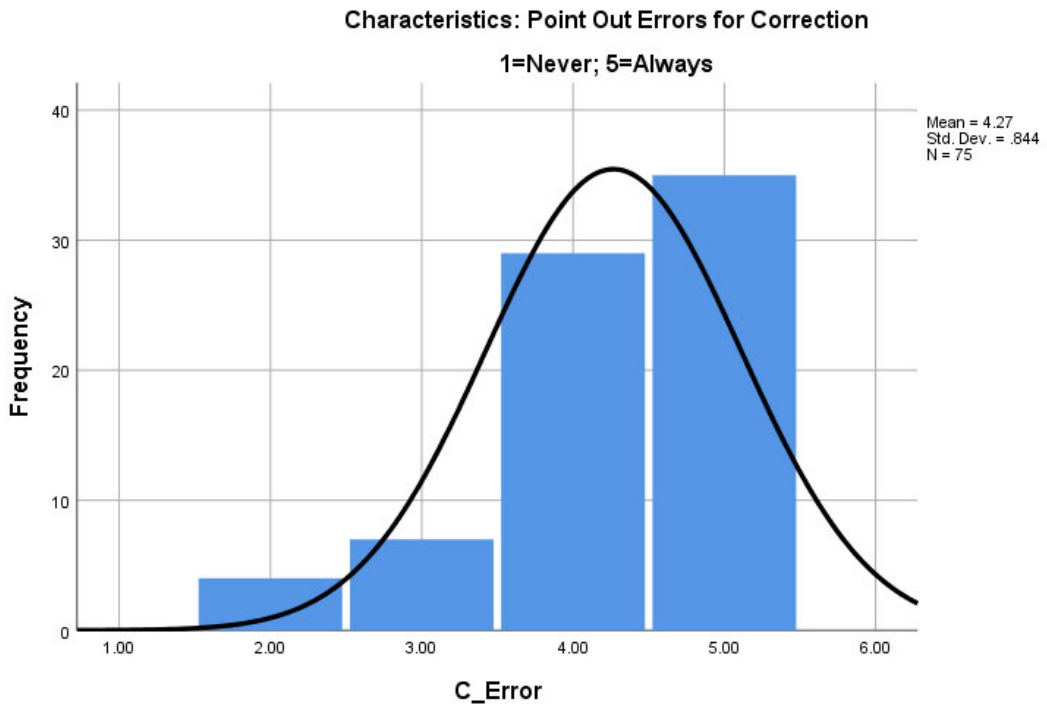


Grades Provide Rewards and Punishments *(N=76)*

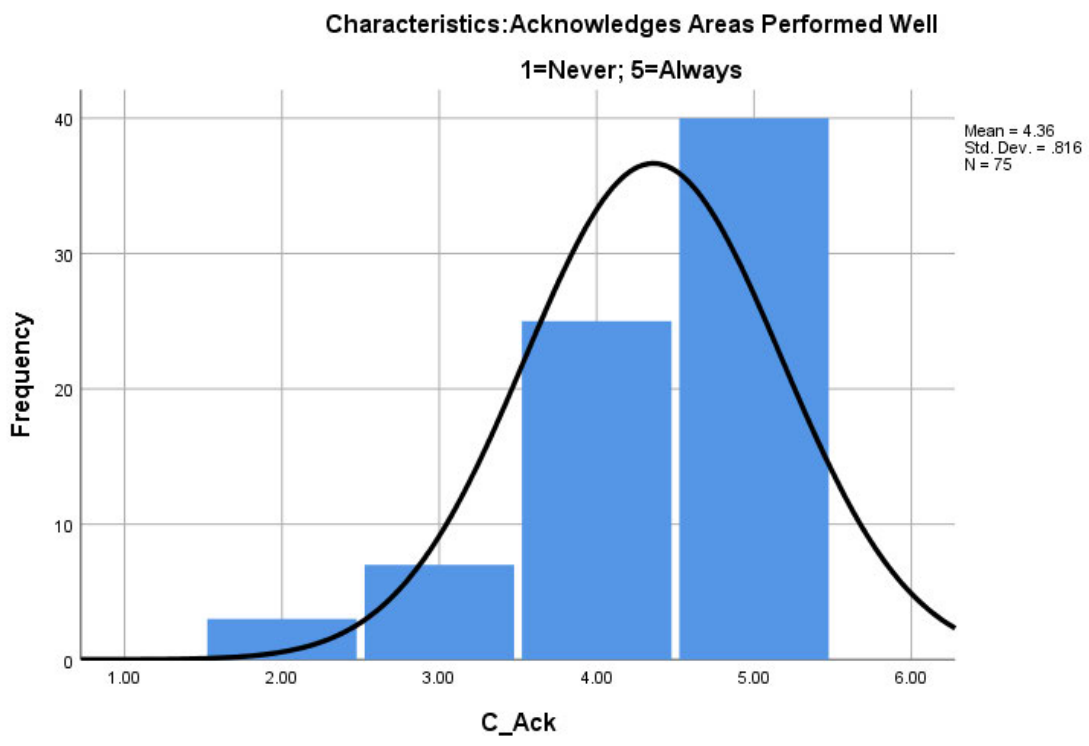


Feedback is Part of the Grade (N=76)

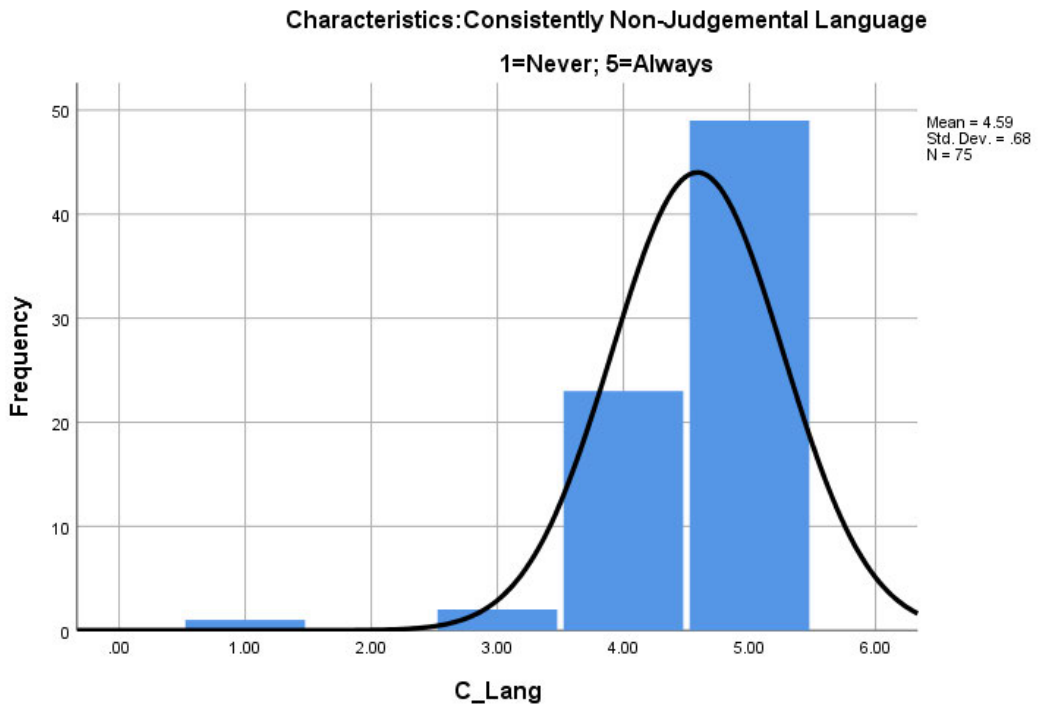
Characteristics: Point Out Errors for Correction *(N=76)*



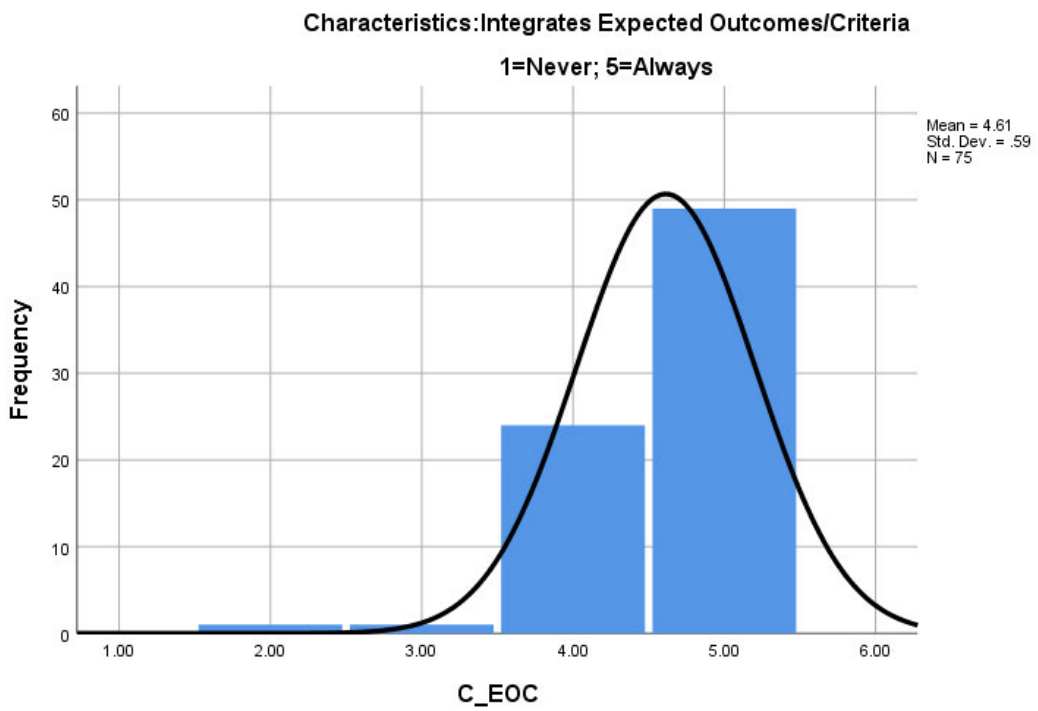
Characteristics: Acknowledges Areas Performed Well *(N=76)*



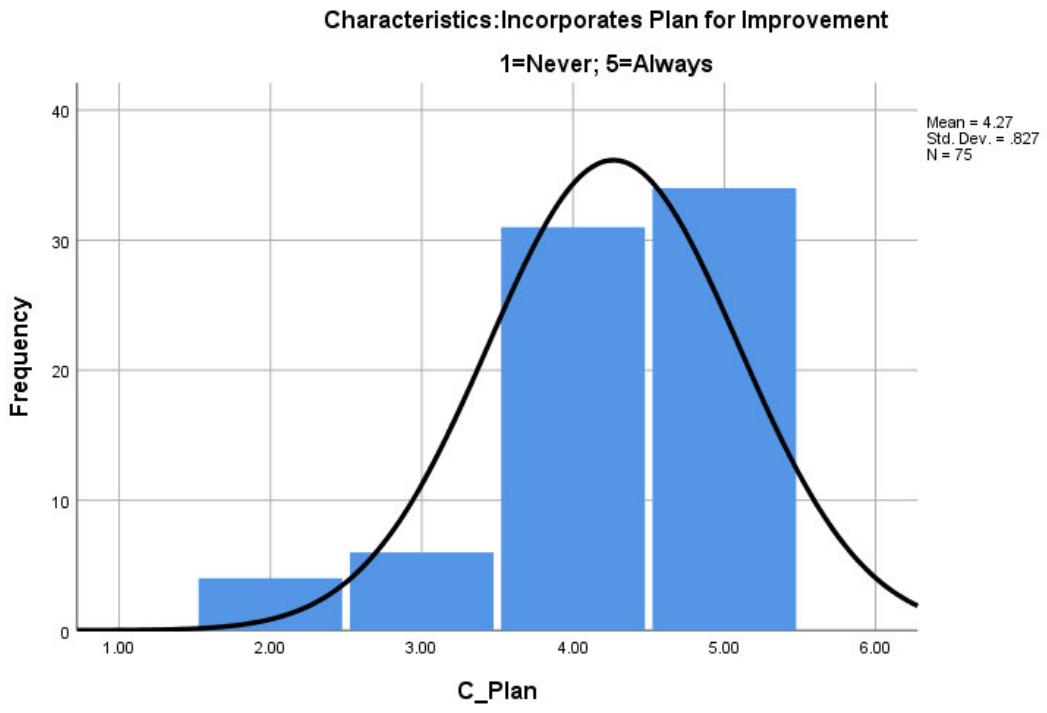
Characteristics: Consistently Non-Judgmental Language *(N=76)*



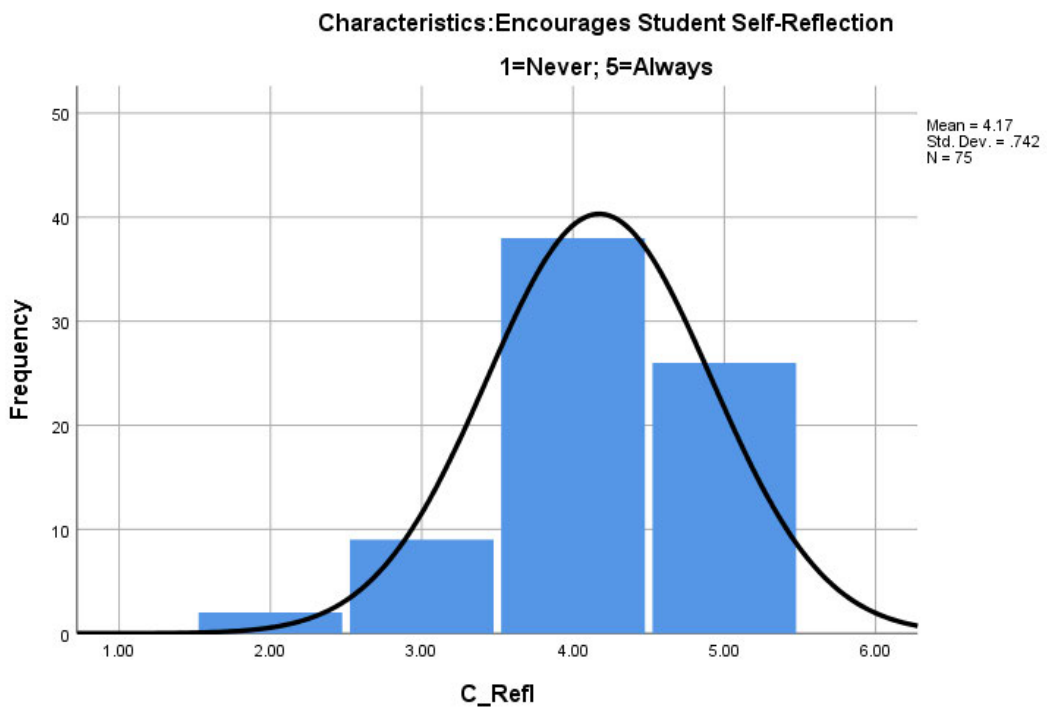
Characteristics: Integrates Expected Outcomes/Criteria *(N=76)*



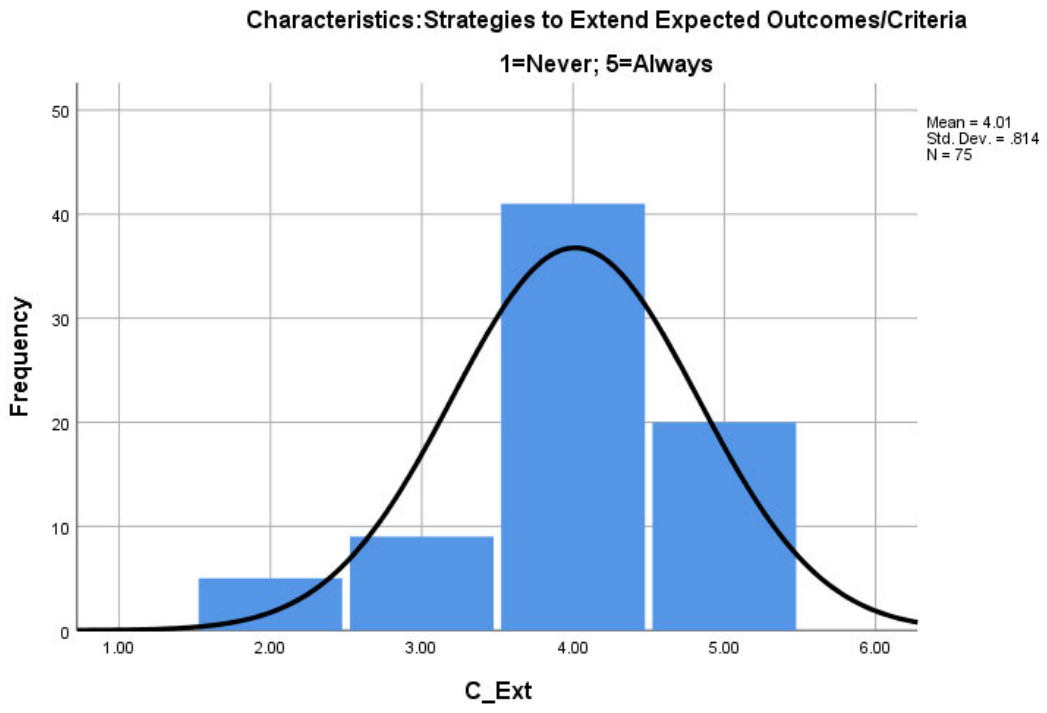
Characteristics: Incorporates Plan for Improvement *(N=76)*



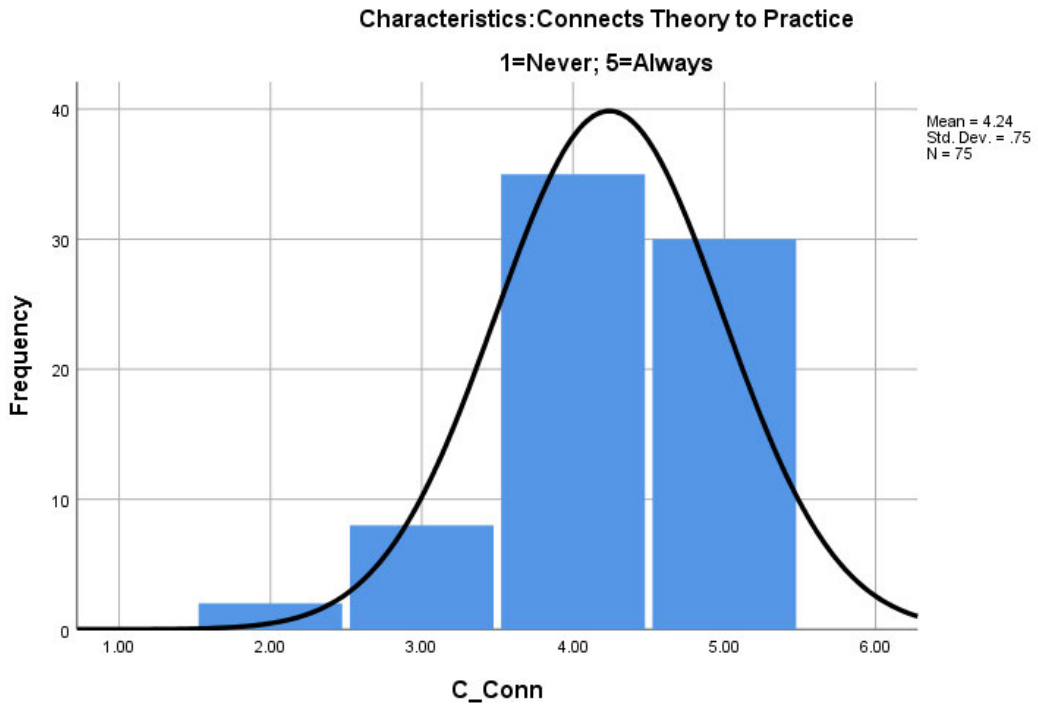
Characteristics: Encourages Student Self-Reflection *(N=76)*



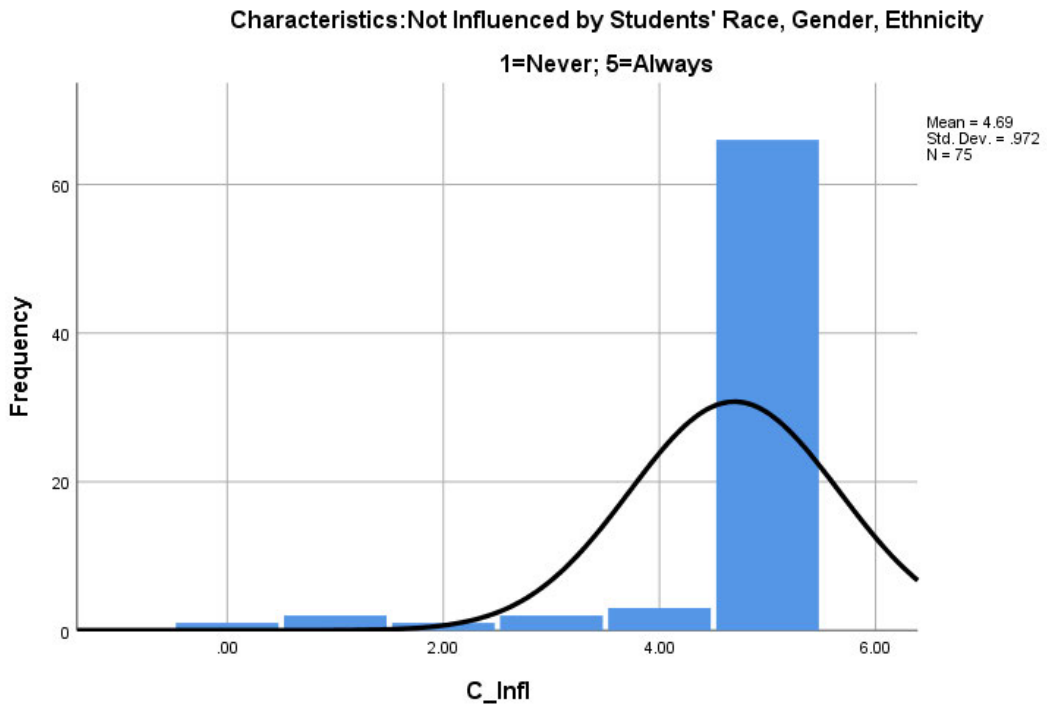
Characteristics: Strategies to Extend Expected Outcomes/Criteria *(N=76)*



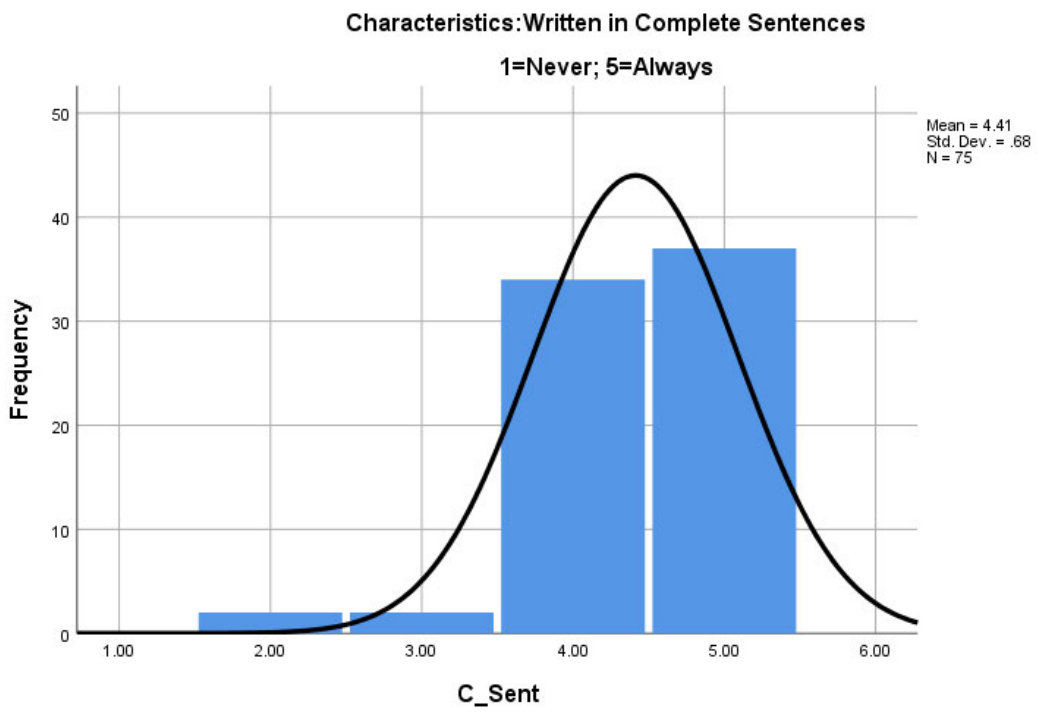
Characteristics: Connects Theory to Practice *(N=76)*



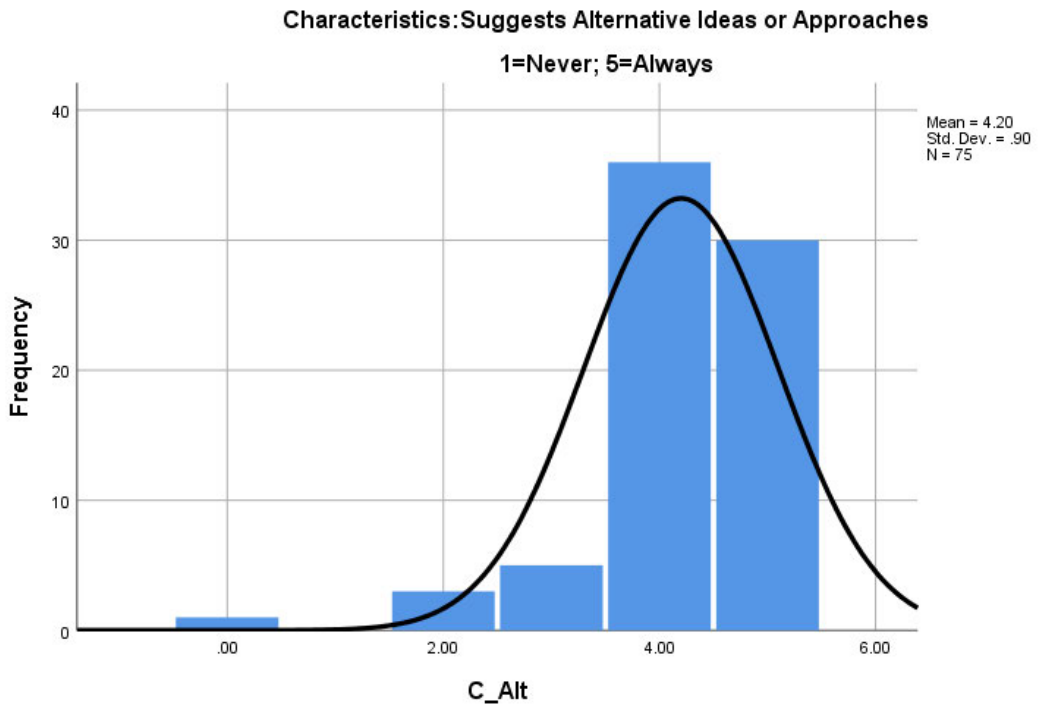
Characteristics: Not Influenced by Students' Race, Gender, Ethnicity *(N=76)*



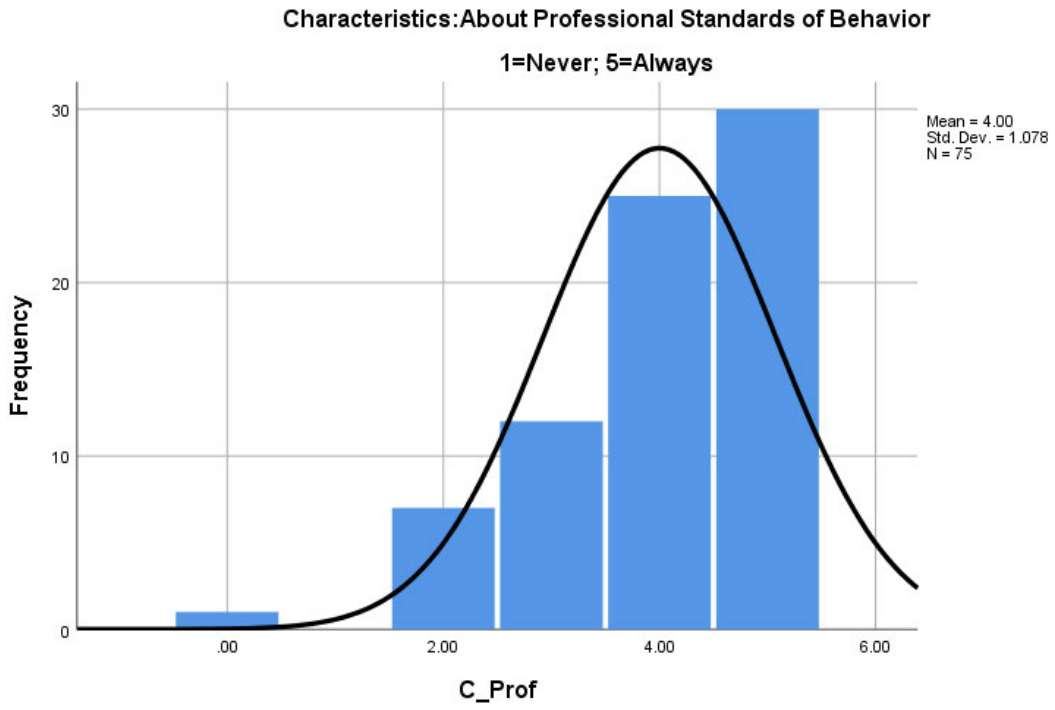
Characteristics: Written in Complete Sentences *(N=76)*



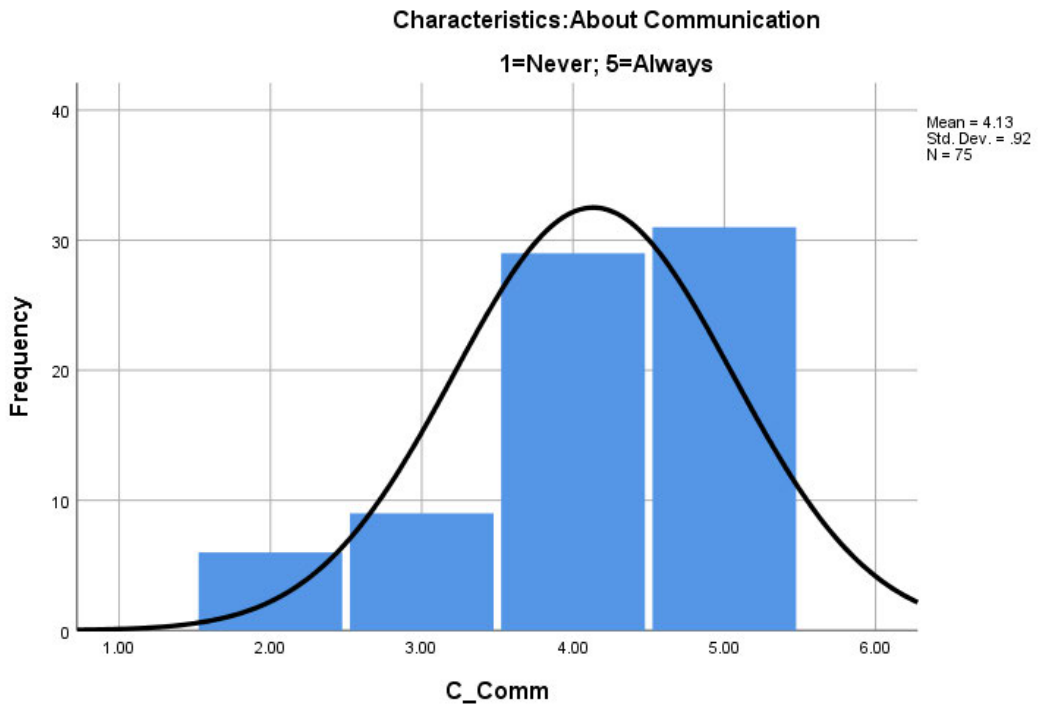
Characteristics: Suggests Alternative Ideas or Approaches' *(N=76)*



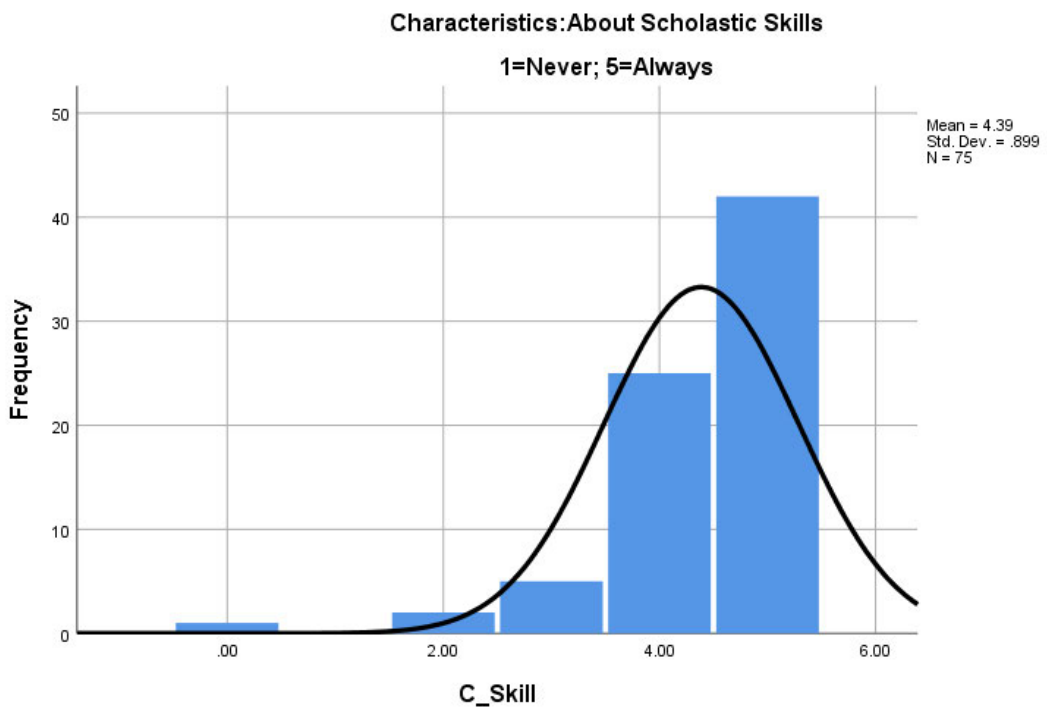
Characteristics: About Professional Standards of Behavior *(N=76)*



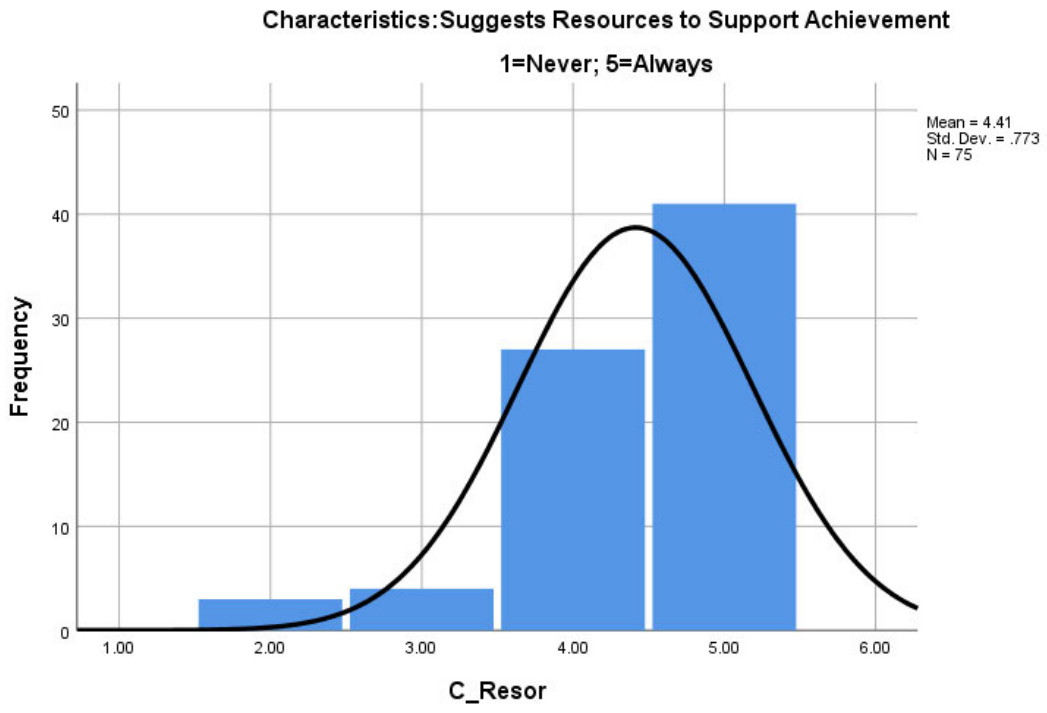
Characteristics: About Communication *(N=76)*



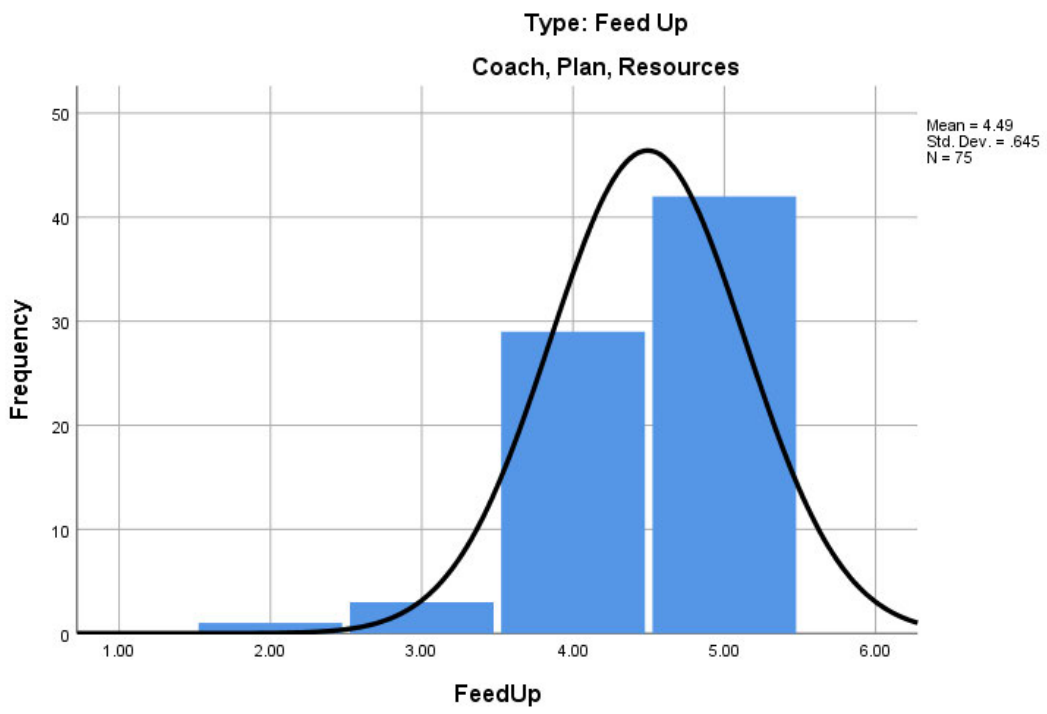
Characteristics: About Scholastic Skills *(N=76)*.



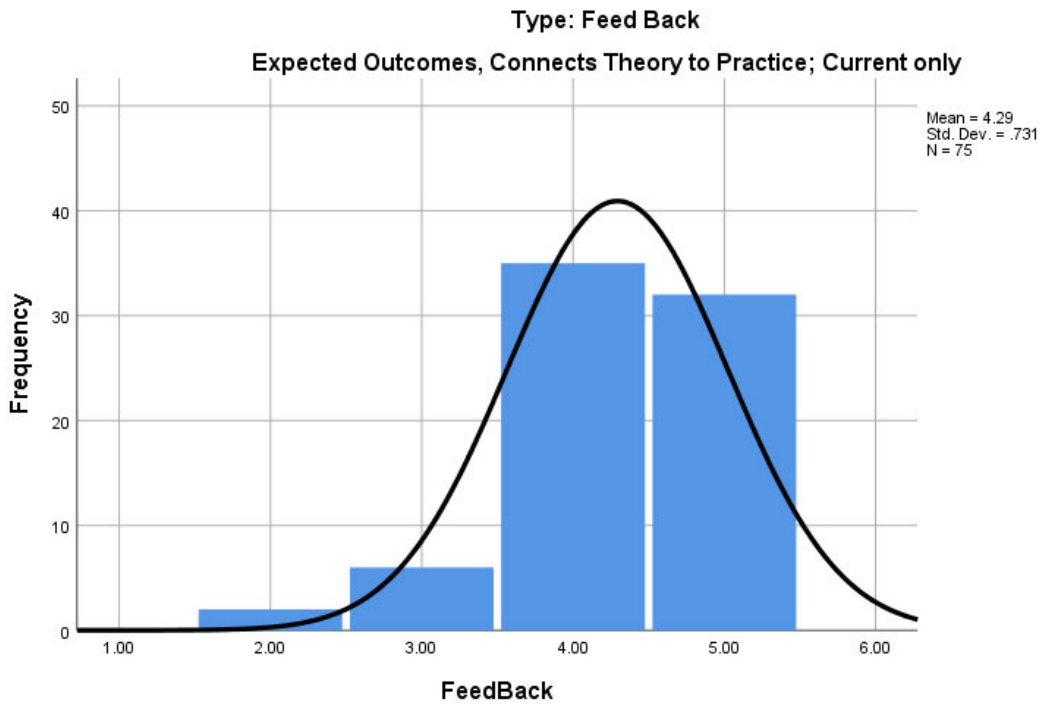
Characteristics: Suggests Resources to Support Achievement *(N=76)*



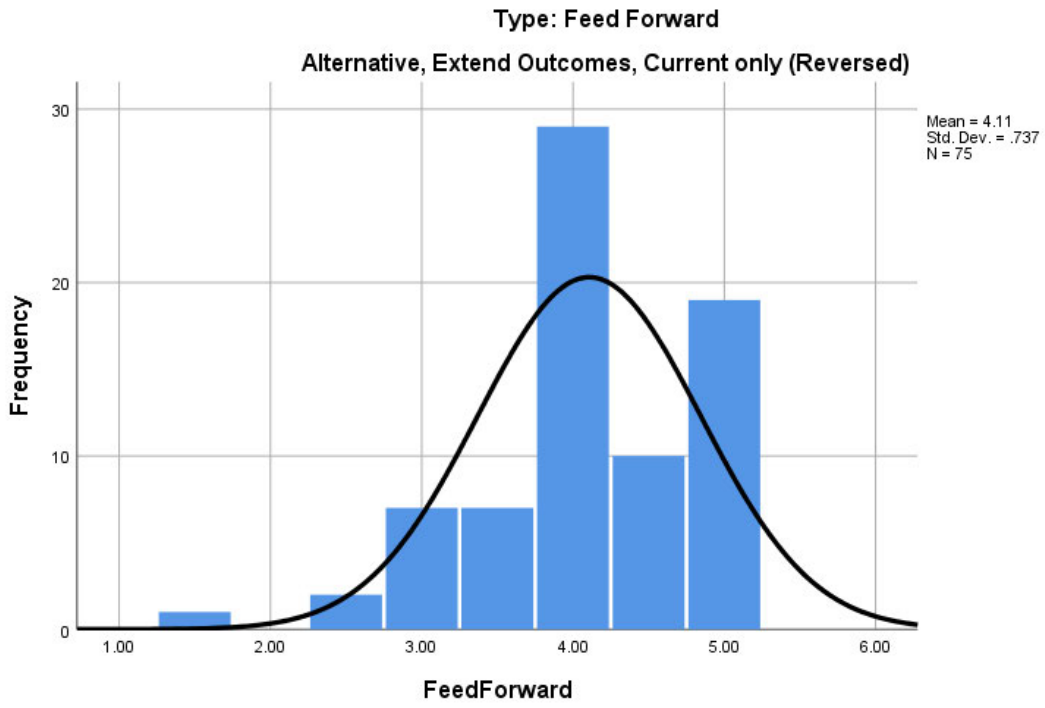
Type: Feed Up (Coach, Plan, Resources)



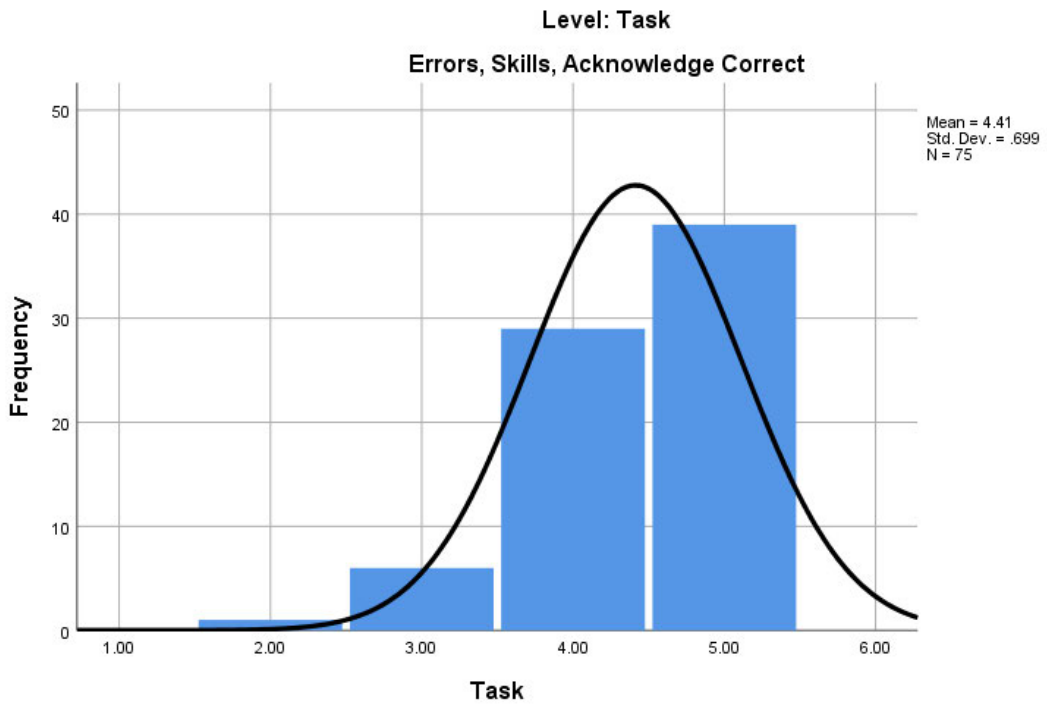
Type: Feed Back (Expected Outcomes, Connects Theory to Practice; Current only)



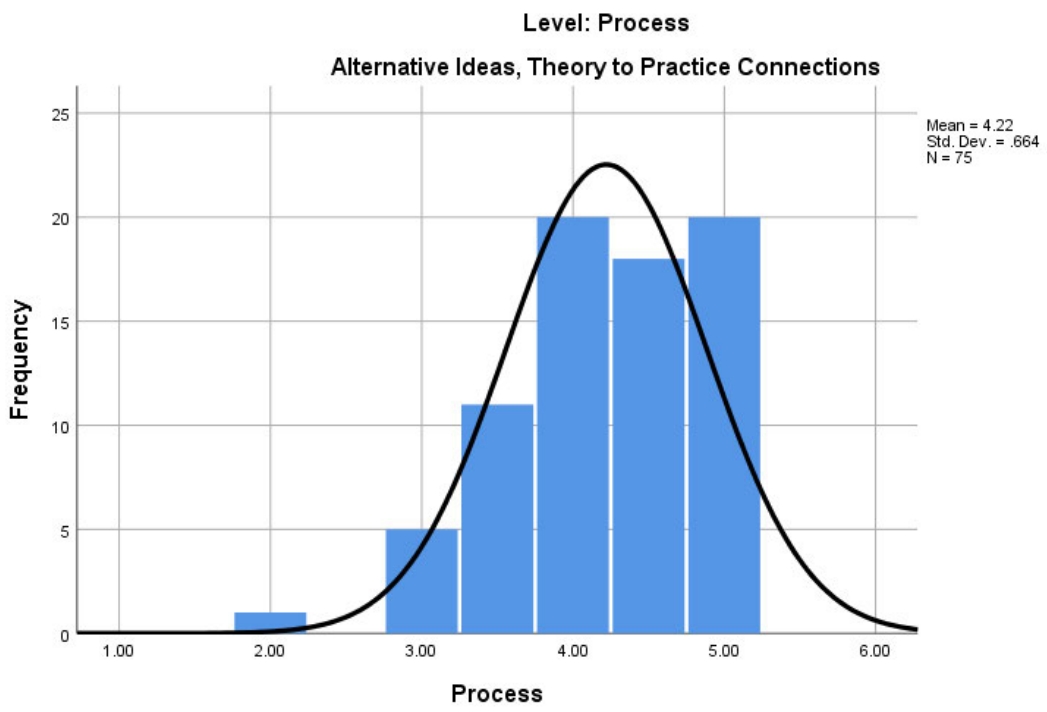
Type: Feed Forward (Alternative, Extend Outcomes, Current only[Reversed)



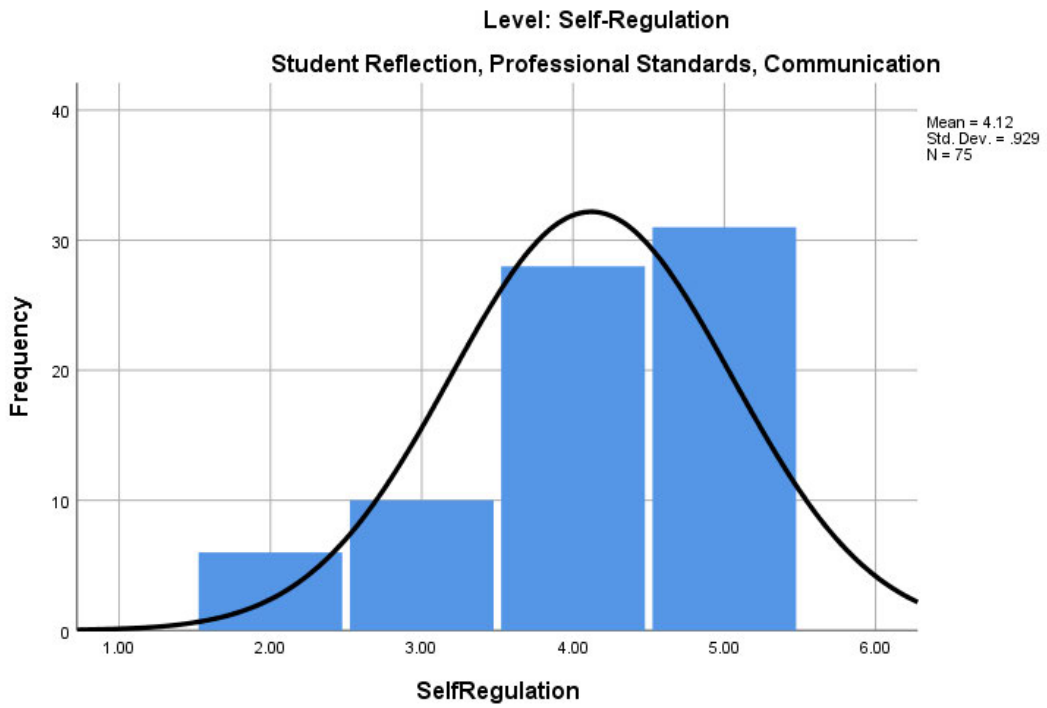
Level: Task (Errors, Skills, Acknowledge Correct)



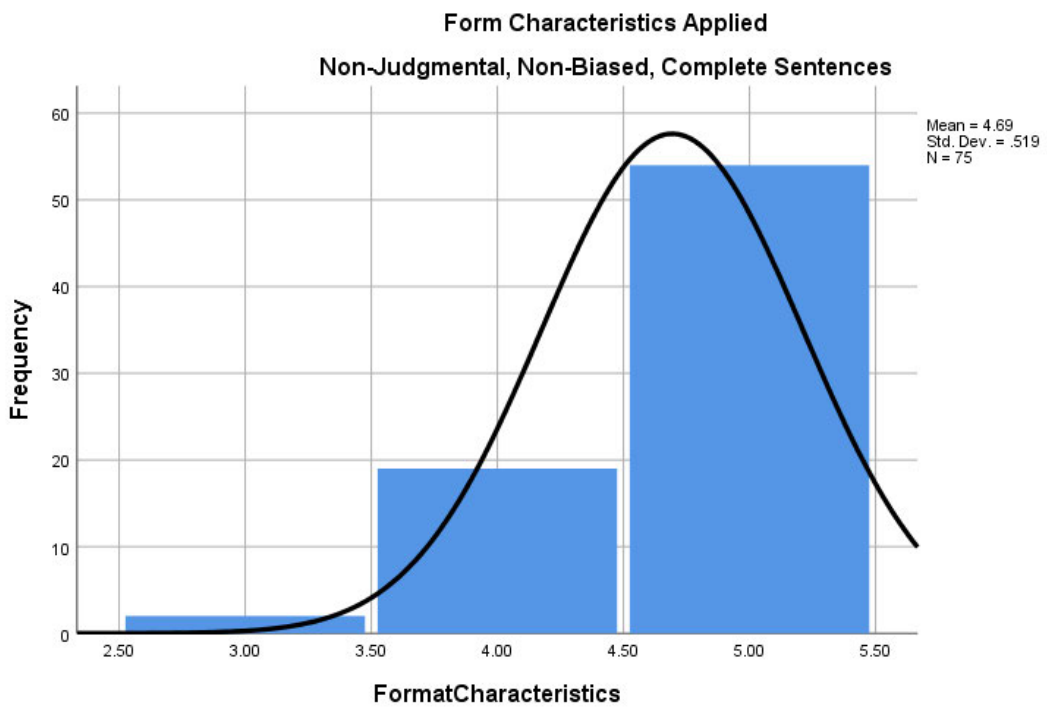
Level: Process (Alternative Ideas, Theory to Practice Connections)



Level: Self-Regulation (Student Reflection, Professional Standards, Communication)



Form Characteristics Applied (Non-Judgmental, Non-Biased, Complete Sentences)



Appendix G.3 Kruskal-Wallis Tests with Attitudes

Kruskal-Wallis Test: Attitudes and Years Teaching Nursing

Ranking for Attitudes according to Teaching Nursing

	YearsTeachNUR	N	Mean Rank
A_SUnd	0-1	4	35.75
	1-3	11	39.36
	3-6	15	36.97
	6-10	16	40.31
	10+	30	38.35
	Total	76	
A_SEmo	0-1	4	25.38
	1-3	11	43.82
	3-6	14	37.61
	6-10	16	36.84
	10+	30	38.35
	Total	75	
A_SIgno	0-1	4	17.50
	1-3	11	30.05
	3-6	15	39.90
	6-10	16	39.06
	10+	30	43.40
	Total	76	
A_SClEx	0-1	4	20.88
	1-3	11	38.77
	3-6	14	38.29
	6-10	16	34.94
	10+	30	41.50
	Total	75	
A_SGrde	0-1	4	47.63
	1-3	11	26.86
	3-6	15	41.97
	6-10	16	36.00
	10+	30	41.15
	Total	76	
A_SAgree	0-1	4	36.25
	1-3	11	37.00
	3-6	14	37.54
	6-10	16	35.22
	10+	30	40.30
	Total	75	
A_SComp	0-1	4	22.75
	1-3	11	37.95

	3-6	15	45.97
	6-10	16	30.13
	10+	30	41.53
	Total	76	
A_SImpr	0-1	4	27.00
	1-3	11	44.27
	3-6	15	37.93
	6-10	16	39.38
	10+	30	37.73
	Total	76	
A_SApply	0-1	4	51.38
	1-3	11	31.14
	3-6	15	38.90
	6-10	16	41.25
	10+	30	37.82
	Total	76	
A_FbGr	0-1	4	41.75
	1-3	11	40.14
	3-6	15	36.40
	6-10	16	35.81
	10+	30	39.95
	Total	76	
A_FbRole	0-1	4	22.50
	1-3	11	41.50
	3-6	15	41.50
	6-10	16	39.13
	10+	30	37.70
	Total	76	
A_FbTime1	0-1	4	37.25
	1-3	11	23.23
	3-6	15	38.40
	6-10	15	39.67
	10+	30	42.48
	Total	75	
A_FbCoach	0-1	4	27.00
	1-3	11	46.00
	3-6	15	30.80
	6-10	16	38.88
	10+	30	40.93
	Total	76	
A_FbNow	0-1	4	44.00
	1-3	10	31.80
	3-6	15	38.93

	6-10	16	26.38
	10+	30	45.00
	Total	75	
A_FbR_P	0-1	4	46.25
	1-3	11	40.05
	3-6	15	45.17
	6-10	16	34.13
	10+	30	35.90
	Total	76	
A_FbTime2	0-1	4	43.88
	1-3	11	35.41
	3-6	15	47.10
	6-10	16	36.09
	10+	30	35.90
	Total	76	
A_FbEff	0-1	4	23.00
	1-3	11	32.18
	3-6	15	38.93
	6-10	16	41.25
	10+	30	41.20
	Total	76	
A_FbRefl	0-1	4	43.00
	1-3	11	35.50
	3-6	15	37.57
	6-10	16	36.06
	10+	30	40.77
	Total	76	

Years Teaching in Nursing: Attitudes about Students(1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.351	2.624	7.950	5.749	5.089
df	4	4	4	4	4
Asymp. Sig.	.986	.623	.093	.219	.278

Years Teaching in Nursing: Attitudes about Students(2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.820	7.912	2.459	4.365	.776
df	4	4	4	4	4
Asymp. Sig.	.936	.095	.652	.359	.942

Years Teaching in Nursing: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	12.063	8.256	9.564	9.458	3.212
df	4	4	4	4	4
Asymp. Sig.	.017	.083	.048	.051	.523

Years Teaching in Nursing: Practice Perceptions (3)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	3.715	4.429	1.086
df	4	4	4
Asymp. Sig.	.446	.351	.896

Cross Tabulations: Years in Teaching Nursing and Significant Kruskal-Wallis Tests

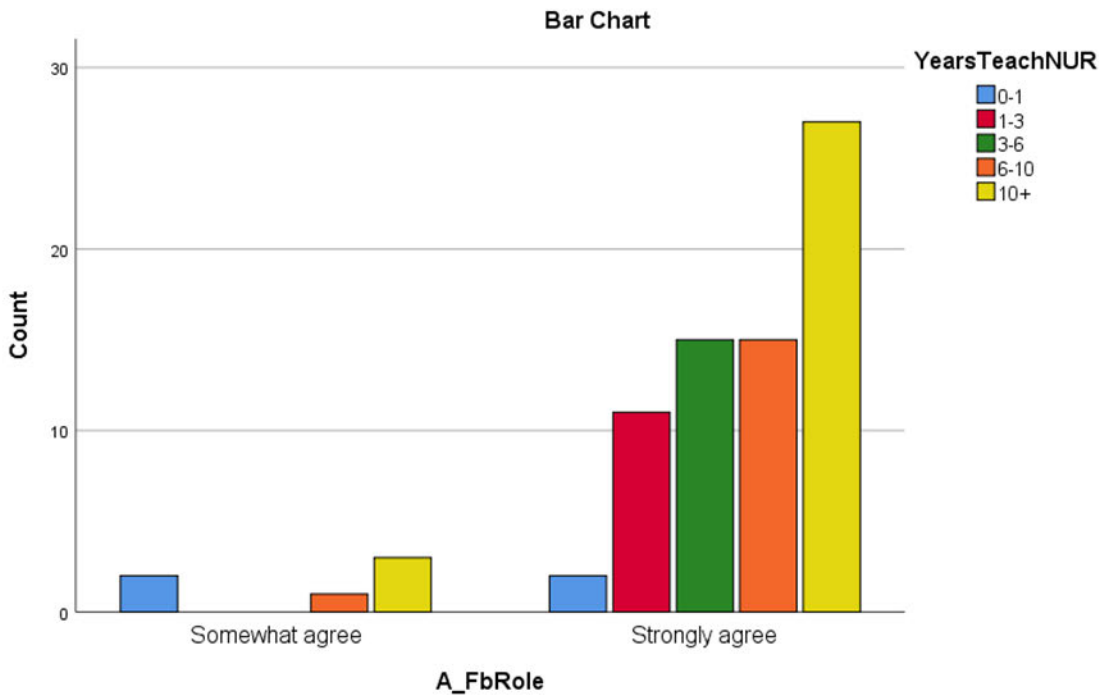
Years Teaching in Nursing: Role; Coaching
*A_FbRole * YearsTeachNUR Crosstabulation*
Count

		YearsTeachNUR				
		0-1	1-3	3-6	6-10	10+
A_FbRole	Somewhat agree	2	0	0	1	3
	Strongly agree	2	11	15	15	27
Total		4	11	15	16	30

*A_FbRole * YearsTeachNUR Crosstabulation*

Count

A_FbRole	Somewhat agree	6
	Strongly agree	70
Total		76



*A_FbCoach * YearsTeachNUR Crosstabulation*

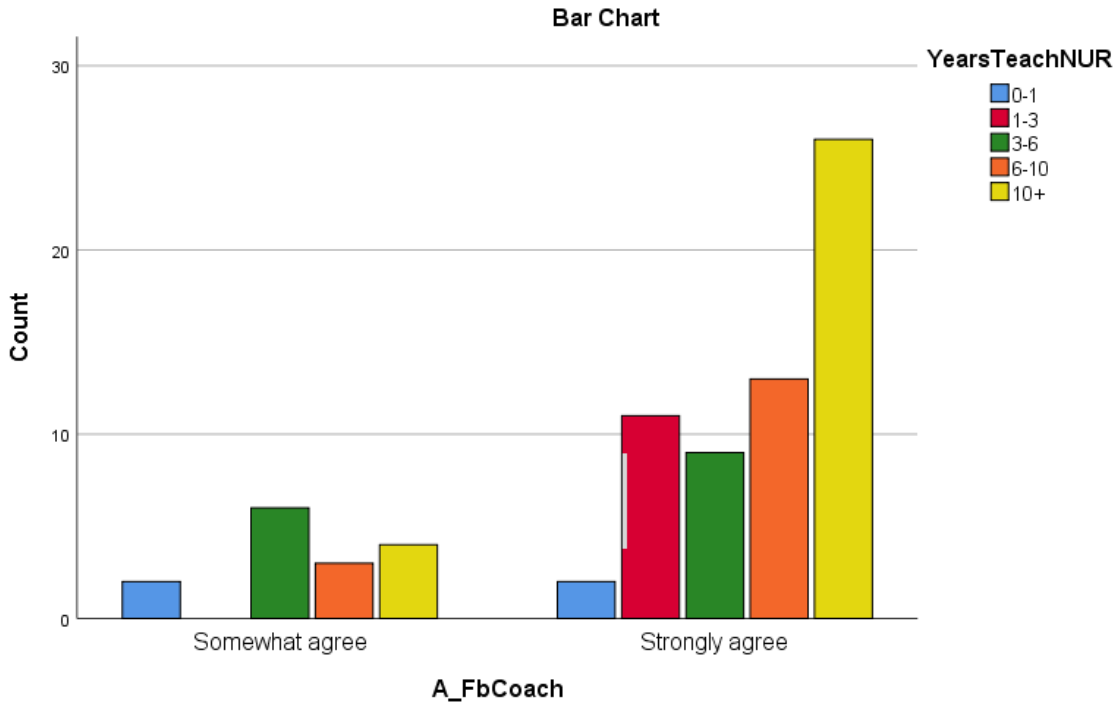
Count

		YearsTeachNUR				
		0-1	1-3	3-6	6-10	10+
A_FbCoach	Somewhat agree	2	0	6	3	4
	Strongly agree	2	11	9	13	26
Total		4	11	15	16	30

*A_FbCoach * YearsTeachNUR Crosstabulation*

Count

A_FbCoach	Somewhat agree	15
	Strongly agree	61
Total		76


Bar Chart
YearsTeachNUR
0-1
1-3
3-6
6-10
10+
Count
30
20
10
0
Somewhat agree
Strongly agree
A_FbCoach

Kruskal-Wallis Test: Attitudes and Years Teaching Online

Ranks of Attitudes according to Years Teaching Online

	YrsTchOL	N	Mean Rank
A_SUnd	0-1	7	36.21
	1-3	18	37.78
	3-6	19	41.61
	6-10	17	34.68
	10+	15	40.83
	Total	76	
A_SEmo	0-1	7	28.86
	1-3	18	39.42
	3-6	18	38.53
	6-10	17	34.32
	10+	15	44.10
	Total	75	
A_SIgno	0-1	7	39.79
	1-3	18	32.06
	3-6	19	38.76
	6-10	17	48.15
	10+	15	34.37
	Total	76	
A_SClEx	0-1	7	27.57
	1-3	18	36.50
	3-6	18	40.67
	6-10	17	33.56
	10+	15	46.50
	Total	75	
A_SGrde	0-1	7	51.79
	1-3	18	33.56
	3-6	19	38.92
	6-10	17	43.12
	10+	15	32.47
	Total	76	
A_SAgree	0-1	7	29.21
	1-3	18	40.69
	3-6	18	34.89
	6-10	17	36.71
	10+	15	44.07
	Total	75	
A_SComp	0-1	7	40.86
	1-3	18	35.31
	3-6	19	36.79

	6-10	17	43.00
	10+	15	38.30
	Total	76	
A_SImpr	0-1	7	26.71
	1-3	18	42.44
	3-6	19	39.63
	6-10	17	31.59
	10+	15	45.67
	Total	76	
A_SApply	0-1	7	28.86
	1-3	18	42.86
	3-6	19	37.16
	6-10	17	35.35
	10+	15	43.03
	Total	76	
A_FbGr	0-1	7	36.50
	1-3	18	40.56
	3-6	19	39.47
	6-10	17	33.35
	10+	15	41.57
	Total	76	
A_FbRole	0-1	7	36.07
	1-3	18	39.39
	3-6	19	39.50
	6-10	17	34.79
	10+	15	41.50
	Total	76	
A_FbTime1	0-1	7	39.71
	1-3	18	30.69
	3-6	19	39.16
	6-10	16	41.56
	10+	15	40.70
	Total	75	
A_FbCoach	0-1	7	29.71
	1-3	18	41.78
	3-6	19	36.00
	6-10	17	34.82
	10+	15	46.00
	Total	76	
A_FbNow	0-1	7	41.86
	1-3	17	37.35
	3-6	19	35.53
	6-10	17	34.47

	10+	15	44.07
	Total	75	
A_FbR_P	0-1	7	44.93
	1-3	18	42.83
	3-6	19	35.50
	6-10	17	35.85
	10+	15	37.10
	Total	76	
A_FbTime2	0-1	7	35.07
	1-3	18	49.11
	3-6	19	35.45
	6-10	17	37.35
	10+	15	32.53
	Total	76	
A_FbEff	0-1	7	22.64
	1-3	18	39.22
	3-6	19	39.87
	6-10	17	41.26
	10+	15	40.17
	Total	76	
A_FbRefl	0-1	7	40.64
	1-3	18	41.89
	3-6	19	32.87
	6-10	17	34.62
	10+	15	44.97
	Total	76	

Years Teaching Online: Attitudes towards Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	1.545	3.578	6.251	7.950	5.691
df	4	4	4	4	4
Asymp. Sig.	.819	.466	.181	.093	.223

Years Teaching Online: Attitudes towards Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	3.785	1.526	7.557	4.700	1.750
df	4	4	4	4	4
Asymp. Sig.	.436	.822	.109	.320	.782

Years Teaching Online: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	4.163	3.571	8.309	2.246	2.108
df	4	4	4	4	4
Asymp. Sig.	.384	.467	.081	.691	.716

Years Teaching Online: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	6.496	5.024	4.237
df	4	4	4
Asymp. Sig.	.165	.285	.375

Kruskal-Wallis Test: Attitudes and Highest Degree

Ranking of Attitudes According to the Highest Degree

	HDeg	N	Mean Rank
A_SUnd	MSN	31	38.21
	PhD	19	37.76
	DNP	16	40.31
	EdD	4	32.00
	Other	6	41.83
	Total	76	
A_SEmo	MSN	30	33.23
	PhD	19	39.97
	DNP	16	46.09
	EdD	4	31.50
	Other	6	38.33
	Total	75	
A_SIgno	MSN	31	33.89
	PhD	19	39.92
	DNP	16	38.31
	EdD	4	51.00
	Other	6	50.00
	Total	76	
A_SClEx	MSN	30	35.25
	PhD	19	35.18
	DNP	16	39.63
	EdD	4	49.00
	Other	6	49.00
	Total	75	
A_SGrde	MSN	31	35.71
	PhD	19	39.21
	DNP	16	38.19
	EdD	4	42.50
	Other	6	48.83
	Total	76	
A_SAgree	MSN	30	39.80
	PhD	19	38.63
	DNP	16	34.28
	EdD	4	42.88
	Other	6	33.67
	Total	75	
A_SComp	MSN	31	34.50
	PhD	19	46.45
	DNP	16	41.28

	EdD	4	22.75
	Other	6	37.08
	Total	76	
A_SImpr	MSN	31	41.39
	PhD	19	37.00
	DNP	16	34.13
	EdD	4	43.00
	Other	6	37.00
	Total	76	
A_SApply	MSN	31	43.06
	PhD	19	32.84
	DNP	16	35.69
	EdD	4	33.75
	Other	6	43.50
	Total	76	
A_FbGr	MSN	31	34.79
	PhD	19	41.39
	DNP	16	38.34
	EdD	4	49.13
	Other	6	41.83
	Total	76	
A_FbRole	MSN	31	35.37
	PhD	19	39.50
	DNP	16	41.50
	EdD	4	41.50
	Other	6	41.50
	Total	76	
A_FbTime1	MSN	30	34.35
	PhD	19	45.42
	DNP	16	35.31
	EdD	4	45.88
	Other	6	34.67
	Total	75	
A_FbCoach	MSN	31	33.74
	PhD	19	42.00
	DNP	16	38.88
	EdD	4	46.00
	Other	6	46.00
	Total	76	
A_FbNow	MSN	31	35.35
	PhD	19	37.26
	DNP	15	43.00
	EdD	4	49.00

	Other	6	34.17
	Total	75	
A_FbR_P	MSN	31	40.79
	PhD	19	34.66
	DNP	16	42.56
	EdD	4	29.50
	Other	6	34.00
	Total	76	
A_FbTime2	MSN	31	43.10
	PhD	19	32.08
	DNP	16	38.75
	EdD	4	28.25
	Other	6	41.25
	Total	76	
A_FbEff	MSN	31	31.74
	PhD	19	41.82
	DNP	16	47.72
	EdD	4	31.63
	Other	6	42.92
	Total	76	
A_FbRefl	MSN	31	32.85
	PhD	19	38.71
	DNP	16	45.06
	EdD	4	51.25
	Other	6	41.00
	Total	76	

Highest Degree: Attitudes toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.832	4.993	5.092	5.516	2.105
df	4	4	4	4	4
Asymp. Sig.	.934	.288	.278	.238	.716

Highest Degree: Attitudes toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	1.417	6.918	1.855	5.065	2.709
df	4	4	4	4	4
Asymp. Sig.	.841	.140	.762	.281	.608

Highest Degree: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	5.230	5.079	6.468	2.661	2.567
df	4	4	4	4	4
Asymp. Sig.	.264	.279	.167	.616	.633

Highest Degree: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	4.354	8.364	5.811
df	4	4	4
Asymp. Sig.	.360	.079	.214

Kruskal-Wallis Test: Attitudes and Formal Education with Teaching Strategies

Ranks of Attitudes According to Formal Education with Teaching Strategies

	EdTch	N	Mean Rank
A_SUnd	no	20	43.05
	yes	56	36.88
	Total	76	
A_SEmo	no	19	45.45
	yes	56	35.47
	Total	75	
A_SIgno	no	20	35.50
	yes	56	39.57
	Total	76	
A_SClEx	no	19	37.16
	yes	56	38.29
	Total	75	
A_SGrde	no	20	33.75
	yes	56	40.20
	Total	76	
A_SAgree	no	19	38.00
	yes	56	38.00
	Total	75	
A_SComp	no	20	36.90
	yes	56	39.07
	Total	76	
A_SImpr	no	20	41.70
	yes	56	37.36
	Total	76	
A_SApply	no	20	45.18
	yes	56	36.12
	Total	76	
A_FbGr	no	20	35.15
	yes	56	39.70
	Total	76	
A_FbRole	no	20	35.80
	yes	56	39.46
	Total	76	
A_FbTime1	no	19	28.32
	yes	56	41.29
	Total	75	
A_FbCoach	no	20	34.60
	yes	56	39.89
	Total	76	

A_FbNow	no	19	31.37
	yes	56	40.25
	Total	75	
A_FbR_P	no	20	41.90
	yes	56	37.29
	Total	76	
A_FbTime2	no	20	39.13
	yes	56	38.28
	Total	76	
A_FbEff	no	20	37.60
	yes	56	38.82
	Total	76	
A_FbRefl	no	20	39.35
	yes	56	38.20
	Total	76	

Formal Education with Teaching Strategies: Attitudes toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	1.552	3.571	.588	.061	1.347
df	1	1	1	1	1
Asymp. Sig.	.213	.059	.443	.805	.246

Formal Education with Teaching Strategies: Attitudes toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.000	.170	.735	3.779	.747
df	1	1	1	1	1
Asymp. Sig.	1.000	.680	.391	.052	.387

Formal Education with Teaching Strategies: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	1.860	6.460	1.781	2.536	.699
df	1	1	1	1	1
Asymp. Sig.	.173	.011	.182	.111	.403

Formal Education with Teaching Strategies: Practice Perceptions (2)

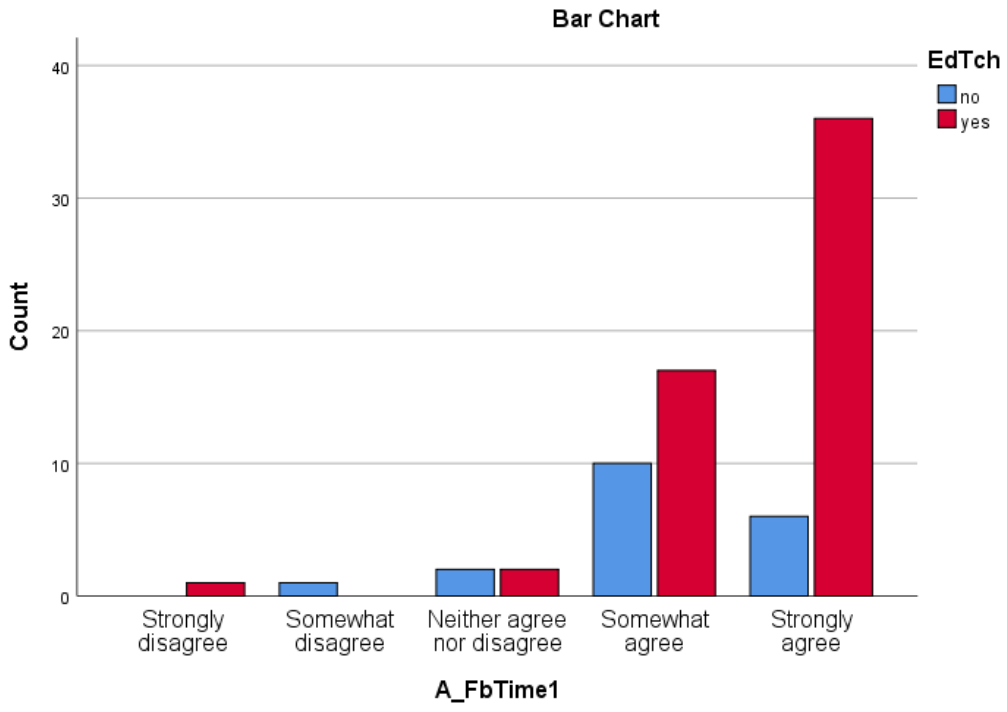
	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	.024	.056	.048
df	1	1	1
Asymp. Sig.	.876	.813	.826

Cross Tabulations: Formal Education with Teaching Strategies and Significant Kruskal-Wallis

Providing Feedback is Time-Consuming: Formal Education with Teaching Strategies
*A_FbTime1 * EdTch Crosstabulation*
Count

		EdTch		
		no	yes	Total
A_FbTime1	Strongly disagree	0	1	1
	Somewhat disagree	1	0	1
	Neither agree nor disagree	2	2	4
	Somewhat agree	10	17	27
	Strongly agree	6	36	42
Total		19	56	75

Providing Feedback is Time-Consuming: Formal Education with Teaching Strategies



Kruskal-Wallis Test: Attitudes and Certified Nurse Educator

Ranking of Attitudes According to Certification as Nurse Educator

	CNE	N	Mean Rank
A_SUnd	no	58	37.75
	yes	18	40.92
	Total	76	
A_SEmo	no	57	37.06
	yes	18	40.97
	Total	75	
A_SIgno	no	58	36.07
	yes	18	46.33
	Total	76	
A_SClEx	no	57	35.84
	yes	18	44.83
	Total	75	
A_SGrde	no	58	37.19
	yes	18	42.72
	Total	76	
A_SAgree	no	57	38.57
	yes	18	36.19
	Total	75	
A_SComp	no	58	39.64
	yes	18	34.83
	Total	76	
A_SImpr	no	58	39.38
	yes	18	35.67
	Total	76	
A_SApply	no	58	40.30
	yes	18	32.69
	Total	76	
A_FbGr	no	58	37.09
	yes	18	43.03
	Total	76	
A_FbRole	no	58	37.57
	yes	18	41.50
	Total	76	
A_FbTime1	no	57	36.42
	yes	18	43.00
	Total	75	
A_FbCoach	no	58	36.83
	yes	18	43.89
	Total	76	

A_FbNow	no	58	37.02
	yes	17	41.35
	Total	75	
A_FbR_P	no	58	39.72
	yes	18	34.56
	Total	76	
A_FbTime2	no	58	39.62
	yes	18	34.89
	Total	76	
A_FbEff	no	58	36.55
	yes	18	44.78
	Total	76	
A_FbRefl	no	58	36.66
	yes	18	44.44
	Total	76	

Certified Nurse Educator: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.380	.529	3.481	3.743	.925
df	1	1	1	1	1
Asymp. Sig.	.537	.467	.062	.053	.336

Certified Nurse Educator: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.205	.777	.500	2.484	1.186
df	1	1	1	1	1
Asymp. Sig.	.651	.378	.479	.115	.276

Certified Nurse Educator: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	1.995	1.603	2.955	.560	.817
df	1	1	1	1	1
Asymp. Sig.	.158	.206	.086	.454	.366

Certified Nurse Educator: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	.703	2.363	2.047
df	1	1	1
Asymp. Sig.	.402	.124	.152

Kruskal-Wallis Test: Attitudes and Employment Status

Ranking of Attitudes According to Employment Status

	Employ	N	Mean Rank
A_SUnd	Not employed at a nursing program at this time	4	35.00
	Part-time	25	44.36
	Full-time	46	34.80
	Total	75	
A_SEmo	Not employed at a nursing program at this time	4	39.63
	Part-time	24	42.02
	Full-time	46	34.96
	Total	74	
A_SIgno	Not employed at a nursing program at this time	4	26.63
	Part-time	25	36.28
	Full-time	46	39.92
	Total	75	
A_SClEx	Not employed at a nursing program at this time	4	29.50
	Part-time	24	40.29
	Full-time	46	36.74
	Total	74	
A_SGrde	Not employed at a nursing program at this time	4	36.88
	Part-time	25	33.02
	Full-time	46	40.80
	Total	75	
A_SAgree	Not employed at a nursing program at this time	4	35.88
	Part-time	24	40.02
	Full-time	46	36.33
	Total	74	
A_SComp	Not employed at a nursing program at this time	4	21.88
	Part-time	25	34.16

	Full-time	46	41.49
	Total	75	
A_SImpr	Not employed at a nursing program at this time	4	35.00
	Part-time	25	45.26
	Full-time	46	34.32
	Total	75	
A_SApply	Not employed at a nursing program at this time	4	50.75
	Part-time	25	39.56
	Full-time	46	36.04
	Total	75	
A_FbGr	Not employed at a nursing program at this time	4	48.13
	Part-time	25	35.82
	Full-time	46	38.30
	Total	75	
A_FbRole	Not employed at a nursing program at this time	4	31.63
	Part-time	25	36.50
	Full-time	46	39.37
	Total	75	
A_FbTime1	Not employed at a nursing program at this time	4	45.88
	Part-time	25	31.08
	Full-time	46	41.08
	Total	75	
A_FbCoach	Not employed at a nursing program at this time	4	36.13
	Part-time	25	36.50
	Full-time	46	38.98
	Total	75	
A_FbNow	Not employed at a nursing program at this time	4	35.00
	Part-time	24	38.48
	Full-time	46	37.21
	Total	74	

A_FbR_P	Not employed at a nursing program at this time	4	45.88
	Part-time	25	40.44
	Full-time	46	35.99
	Total	75	
A_FbTime2	Not employed at a nursing program at this time	4	50.50
	Part-time	25	45.60
	Full-time	46	32.78
	Total	75	
A_FbEff	Not employed at a nursing program at this time	4	22.50
	Part-time	25	42.18
	Full-time	46	37.08
	Total	75	
A_FbRefl	Not employed at a nursing program at this time	4	50.38
	Part-time	25	34.90
	Full-time	46	38.61
	Total	75	

Employment Status: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	4.331	2.086	1.884	1.665	2.230
df	2	2	2	2	2
Asymp. Sig.	.115	.352	.390	.435	.328

Employment Status: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.614	4.990	5.414	2.822	1.352
df	2	2	2	2	2
Asymp. Sig.	.736	.083	.067	.244	.509

Employment Status: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	2.908	5.090	.501	.121	1.330
df	2	2	2	2	2
Asymp. Sig.	.234	.078	.778	.941	.514

Employment Status: Practice Perceptions (2)

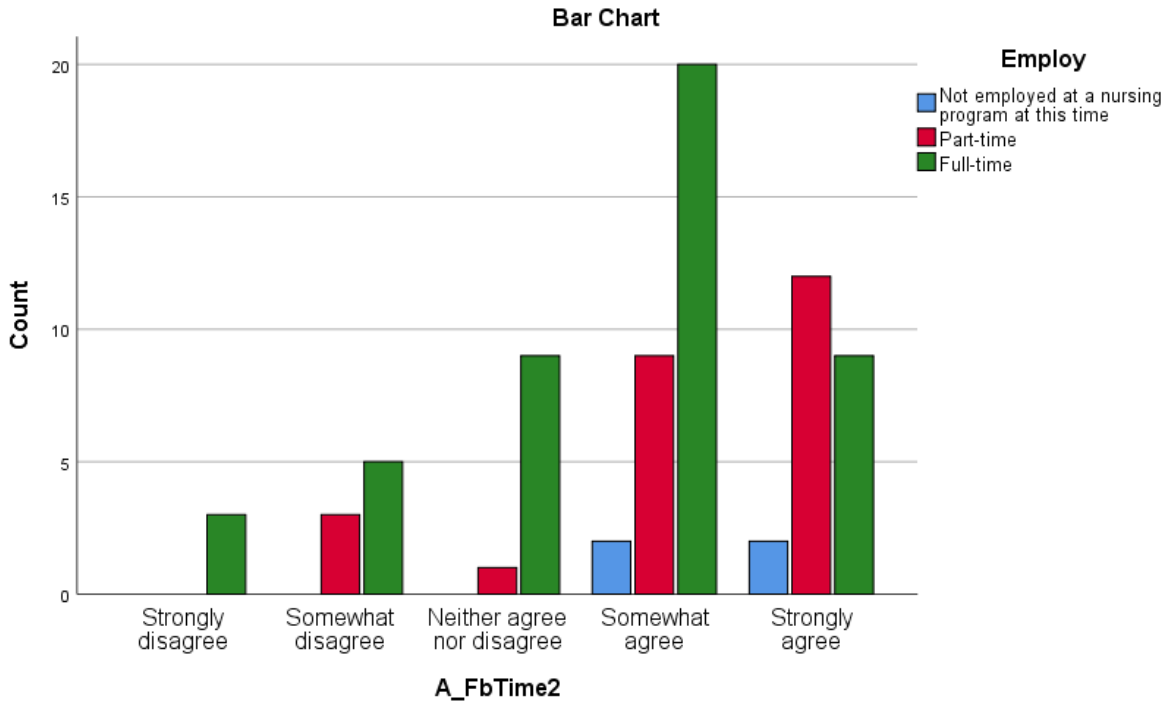
	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	7.794	3.756	2.193
df	2	2	2
Asymp. Sig.	.020	.153	.334

Cross Tabulation: Employment Status and Have Enough Time to Provide Meaningful Feedback

*A_FbTime2 * Employ Crosstabulation*
Count

		Employ			
		Not employed at a nursing program at this time	Part-time	Full-time	Total
A_FbTime2	Strongly disagree	0	0	3	3
	Somewhat disagree	0	3	5	8
	Neither agree nor disagree	0	1	9	10
	Somewhat agree	2	9	20	31
	Strongly agree	2	12	9	23
Total		4	25	46	75

Employment Status and Have Enough Time to Provide Meaningful Feedback



Kruskal-Wallis Test: Attitudes and Teaching at More than One School of Nursing

Ranking of Attitudes and Teaching at More Than One School of Nursing

	Plus	N	Mean Rank
A_SUnd	Not employed at a nursing program	1	54.00
	no	57	38.08
	yes	18	38.97
	Total	76	
A_SEmo	Not employed at a nursing program	1	63.00
	no	56	37.16
	yes	18	39.22
	Total	75	
A_SIgno	Not employed at a nursing program	1	17.50
	no	57	35.73
	yes	18	48.44
	Total	76	
A_SClEx	Not employed at a nursing program	1	49.00
	no	56	37.62
	yes	18	38.58
	Total	75	
A_SGrde	Not employed at a nursing program	1	52.00
	no	57	35.69
	yes	18	46.64
	Total	76	
A_SAgree	Not employed at a nursing program	1	44.00
	no	56	39.29
	yes	18	33.67
	Total	75	
A_SComp	Not employed at a nursing program	1	29.50
	no	57	37.28
	yes	18	42.86
	Total	76	
A_SImpr	Not employed at a nursing program	1	35.00
	no	57	40.02
	yes	18	33.89
	Total	76	

A_SApply	Not employed at a nursing program	1	44.00
	no	57	37.64
	yes	18	40.92
	Total	76	
A_FbGr	Not employed at a nursing program	1	27.00
	no	57	38.11
	yes	18	40.36
	Total	76	
A_FbRole	Not employed at a nursing program	1	3.50
	no	57	40.17
	yes	18	35.17
	Total	76	
A_FbTime1	Not employed at a nursing program	1	20.00
	no	56	37.88
	yes	18	39.36
	Total	75	
A_FbCoach	Not employed at a nursing program	1	8.00
	no	57	40.00
	yes	18	35.44
	Total	76	
A_FbNow	Not employed at a nursing program	1	15.00
	no	57	37.96
	yes	17	39.47
	Total	75	
A_FbR_P	Not employed at a nursing program	1	52.50
	no	57	37.75
	yes	18	40.11
	Total	76	
A_FbTime2	Not employed at a nursing program	1	37.00
	no	57	38.14
	yes	18	39.72
	Total	76	
A_FbEff	Not employed at a nursing program	1	23.00
	no	57	38.82
	yes	18	38.33

	Total	76	
A_FbRefl	Not employed at a nursing program	1	59.50
	no	57	39.15
	yes	18	35.28
	Total	76	

Teaching at More Than One School of Nursing: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.702	1.749	6.396	.458	4.011
df	2	2	2	2	2
Asymp. Sig.	.704	.417	.041	.795	.135

Teaching at More Than One School of Nursing: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	1.239	1.245	1.391	.555	.498
df	2	2	2	2	2
Asymp. Sig.	.538	.537	.499	.758	.780

Teaching at More Than One School of Nursing: Practice Perceptions (1)

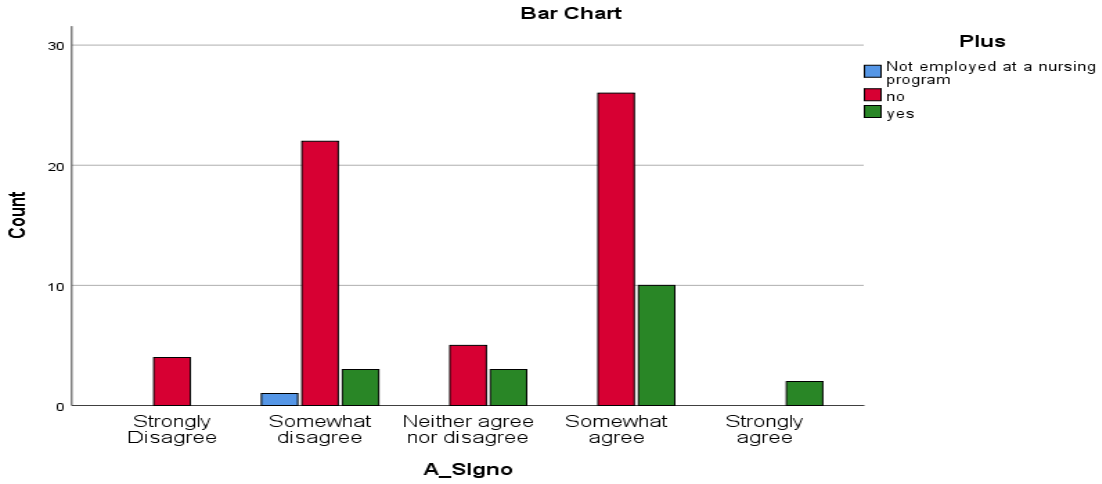
	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	14.881	.969	5.291	1.282	.613
df	2	2	2	2	2
Asymp. Sig.	.001	.616	.071	.527	.736

Teaching at More Than One School of Nursing: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	.083	.627	1.601
df	2	2	2
Asymp. Sig.	.959	.731	.449

Cross Tabulation: More than One School Of Nursing and Significant Kruskal-Wallis

Teaching at more than one School of Nursing: Students do not Attend to my Feedback

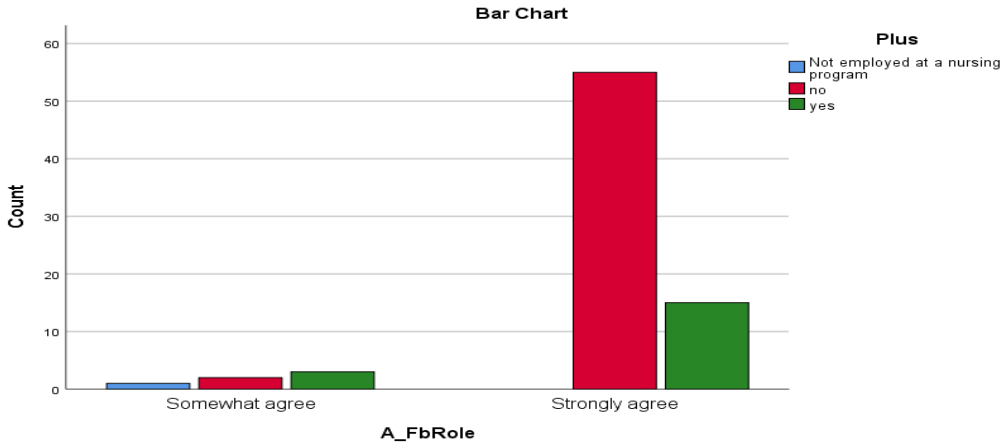


Teaching at More than One College of Nursing: Feedback is Part of Nurse Educator's Role

*A_FbRole * Plus Crosstabulation*
Count

		Plus			
		Not employed at a nursing program	no	yes	Total
A_FbRole	Somewhat agree	1	2	3	6
	Strongly agree	0	55	15	70
Total		1	57	18	76

Teaching at more than one School of Nursing: Feedback is Part of the Nurse Educator Role



Kruskal-Wallis Test: Attitudes and Another Non-Teaching Job

Ranking of Attitudes According to Another Non-Teaching Job

	Oth_Job	N	Mean Rank
A_SUnd	no	32	38.19
	Yes, non-nursing	4	35.75
	Yes, another nursing pro	40	39.03
	Total	76	
A_SEmo	no	32	39.89
	Yes, non-nursing	4	25.38
	Yes, another nursing pro	39	37.74
	Total	75	
A_SIgno	no	32	40.63
	Yes, non-nursing	4	31.50
	Yes, another nursing pro	40	37.50
	Total	76	
A_SClEx	no	32	40.80
	Yes, non-nursing	4	39.63
	Yes, another nursing pro	39	35.54
	Total	75	
A_SGrde	no	32	35.02
	Yes, non-nursing	4	61.50
	Yes, another nursing pro	40	38.99
	Total	76	
A_SAgree	no	32	39.19
	Yes, non-nursing	4	32.50
	Yes, another nursing pro	39	37.59
	Total	75	
A_SComp	no	32	40.00
	Yes, non-nursing	4	22.75
	Yes, another nursing pro	40	38.88
	Total	76	
A_SImpr	no	32	38.38
	Yes, non-nursing	4	27.00
	Yes, another nursing pro	40	39.75
	Total	76	
A_SApply	no	32	37.94
	Yes, non-nursing	4	44.00
	Yes, another nursing pro	40	38.40
	Total	76	
A_FbGr	no	32	37.78
	Yes, non-nursing	4	22.50
	Yes, another nursing pro	40	40.68

	Total	76	
A_FbRole	no	32	41.50
	Yes, non-nursing	4	22.50
	Yes, another nursing pro	40	37.70
	Total	76	
A_FbTime1	no	31	40.06
	Yes, non-nursing	4	45.88
	Yes, another nursing pro	40	35.61
	Total	75	
A_FbCoach	no	32	42.44
	Yes, non-nursing	4	17.50
	Yes, another nursing pro	40	37.45
	Total	76	
A_FbNow	no	32	39.59
	Yes, non-nursing	4	54.00
	Yes, another nursing pro	39	35.05
	Total	75	
A_FbR_P	no	32	41.50
	Yes, non-nursing	4	45.50
	Yes, another nursing pro	40	35.40
	Total	76	
A_FbTime2	no	32	36.02
	Yes, non-nursing	4	35.13
	Yes, another nursing pro	40	40.83
	Total	76	
A_FbEff	no	32	41.14
	Yes, non-nursing	4	27.00
	Yes, another nursing pro	40	37.54
	Total	76	
A_FbRefl	no	32	38.84
	Yes, non-nursing	4	38.00
	Yes, another nursing pro	40	38.28
	Total	76	

Another Non-Teaching Job: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.123	1.909	.915	1.683	5.530
df	2	2	2	2	2
Asymp. Sig.	.941	.385	.633	.431	.063

Another Non-Teaching Job: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.458	2.621	1.565	.411	3.016
df	2	2	2	2	2
Asymp. Sig.	.795	.270	.457	.814	.221

Another Non-Teaching Job: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	12.571	1.646	9.941	3.273	1.934
df	2	2	2	2	2
Asymp. Sig.	.002	.439	.007	.195	.380

Another Non-Teaching Job: Practice Perceptions (2)

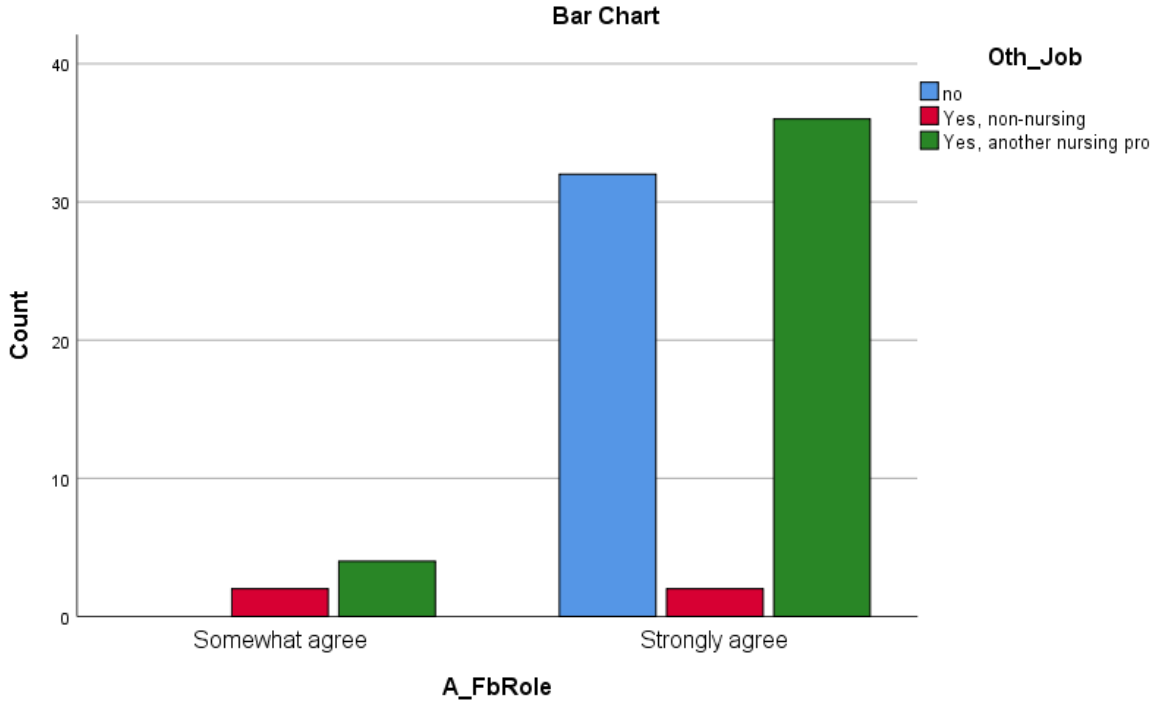
	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	1.050	2.006	.017
df	2	2	2
Asymp. Sig.	.592	.367	.992

Cross Tabulations: Another Non-Teaching Job and Significant Kruskal-Wallis

Another Non-Teaching Job: Feedback is Nurse Educator's Role
*A_FbRole * Oth_Job Crosstabulation*
Count

		Oth_Job			
		no	Yes, non-nursing	Yes, another nursing pro	Total
A_FbRole	Somewhat agree	0	2	4	6
	Strongly agree	32	2	36	70
Total		32	4	40	76

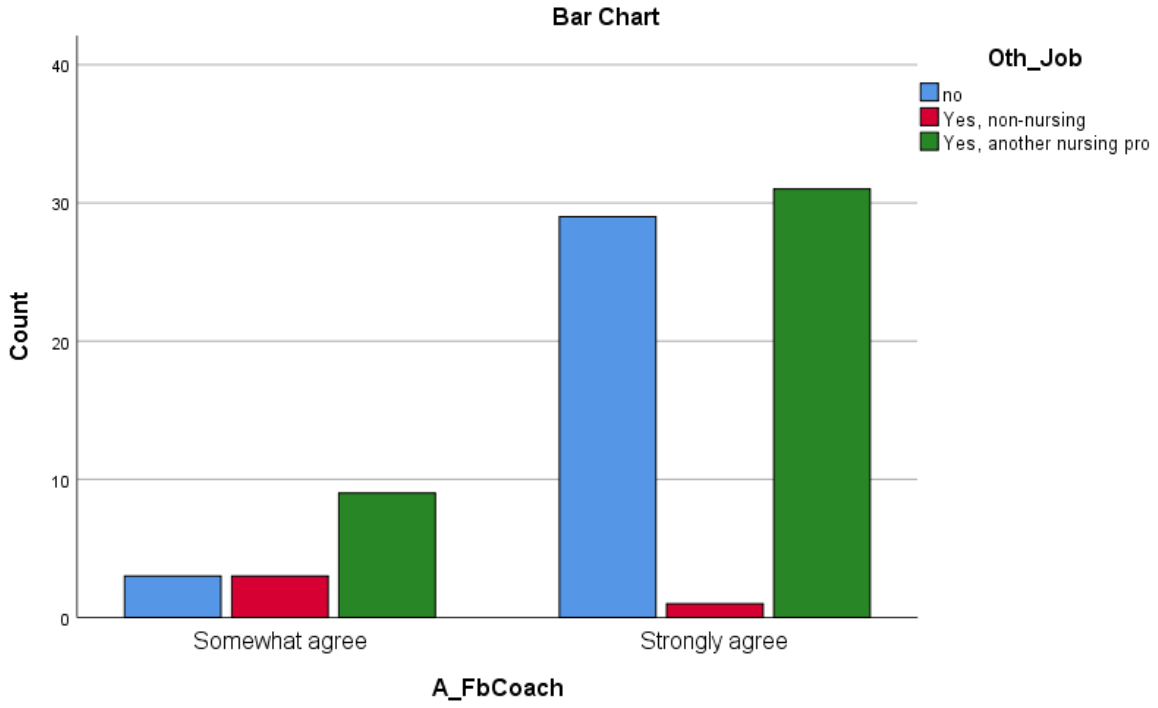
Another Non-Teaching Job: Feedback is Nurse Educator's Role



Another Non-Teaching Job: Feedback is for Coaching
*A_FbCoach * Oth_Job Crosstabulation*
Count

		Oth_Job			
		no	Yes, non-nursing	Yes, another nursing pro	Total
A_FbCoach	Somewhat agree	3	3	9	15
	Strongly agree	29	1	31	61
Total		32	4	40	76

Another Non-Teaching Job: Feedback is for Coaching



Kruskal-Wallis Test: Attitudes and Designer of Online Course

Ranking of Attitudes According to Designer of Online Course

	Design	N	Mean Rank
A_SUnd	Designed by University	46	38.27
	Designed by Fac	29	37.57
	Total	75	
A_SEmo	Designed by University	45	37.26
	Designed by Fac	29	37.88
	Total	74	
A_SIgno	Designed by University	46	37.91
	Designed by Fac	29	38.14
	Total	75	
A_SClEx	Designed by University	45	34.52
	Designed by Fac	29	42.12
	Total	74	
A_SGrde	Designed by University	46	37.67
	Designed by Fac	29	38.52
	Total	75	
A_SAgree	Designed by University	45	37.92
	Designed by Fac	29	36.84
	Total	74	
A_SComp	Designed by University	46	37.51
	Designed by Fac	29	38.78
	Total	75	
A_SImpr	Designed by University	46	37.89
	Designed by Fac	29	38.17
	Total	75	
A_SApply	Designed by University	46	38.51
	Designed by Fac	29	37.19
	Total	75	
A_FbGr	Designed by University	46	36.08
	Designed by Fac	29	41.05
	Total	75	
A_FbRole	Designed by University	46	36.11
	Designed by Fac	29	41.00
	Total	75	
A_FbTime1	Designed by University	45	36.92
	Designed by Fac	29	38.40
	Total	74	
A_FbCoach	Designed by University	46	34.09
	Designed by Fac	29	44.21
	Total	75	

A_FbNow	Designed by University	45	38.39
	Designed by Fac	29	36.12
	Total	74	
A_FbR_P	Designed by University	46	40.58
	Designed by Fac	29	33.91
	Total	75	
A_FbTime2	Designed by University	46	40.84
	Designed by Fac	29	33.50
	Total	75	
A_FbEff	Designed by University	46	36.84
	Designed by Fac	29	39.84
	Total	75	
A_FbRefl	Designed by University	46	34.92
	Designed by Fac	29	42.88
	Total	75	

Designer of Online Course: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	.025	.018	.002	3.512	.028
df	1	1	1	1	1
Asymp. Sig.	.875	.894	.962	.061	.866

Designer of Online Course: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	.055	.072	.004	.099	1.117
df	1	1	1	1	1
Asymp. Sig.	.814	.788	.951	.753	.291

Designer of Online Course: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	4.057	.107	7.988	.211	1.805
df	1	1	1	1	1
Asymp. Sig.	.044	.743	.005	.646	.179

Designer of Online Course: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	2.247	.419	2.835
df	1	1	1
Asymp. Sig.	.134	.518	.092

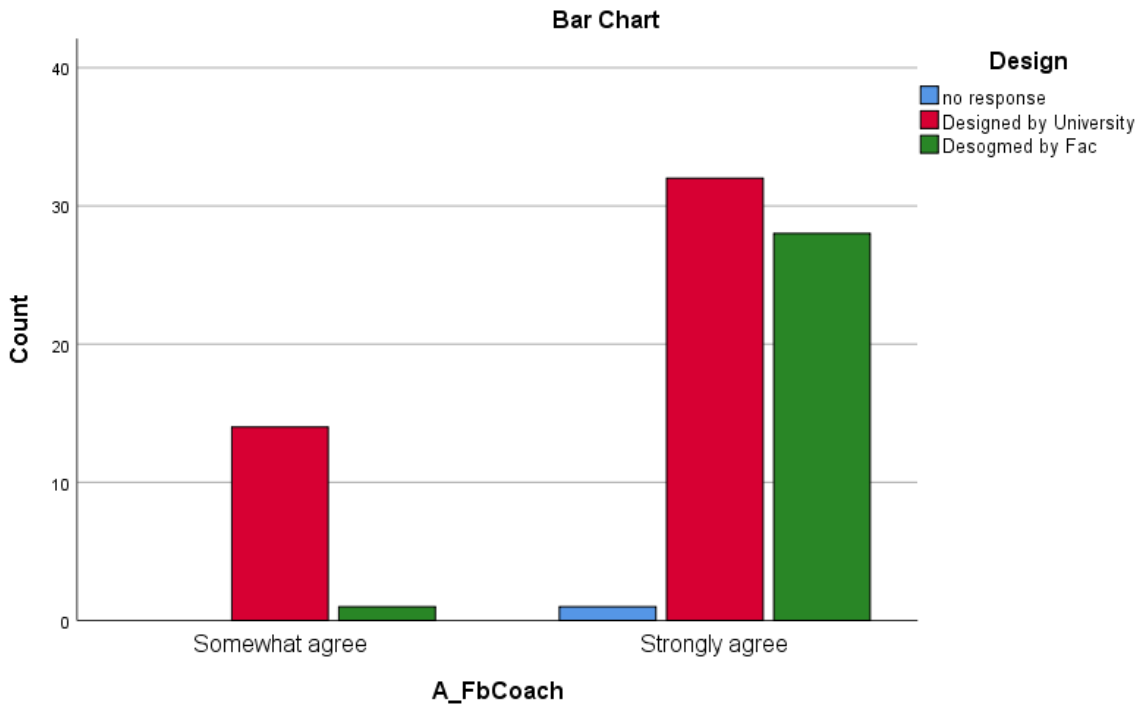
Cross Tabulations: *Designer of Online Course and Significant Kruskal-Wallis Tests*

Designer of Online Course: Feedback is for Coaching
*A_FbCoach * Design Crosstabulation*

Count

		Design			
		no response	Designed by University	Designed by Faculty	Total
A_FbCoach	Somewhat agree	0	14	1	15
	Strongly agree	1	32	28	61
Total		1	46	29	76

Designer of Online Course: Feedback is for Coaching



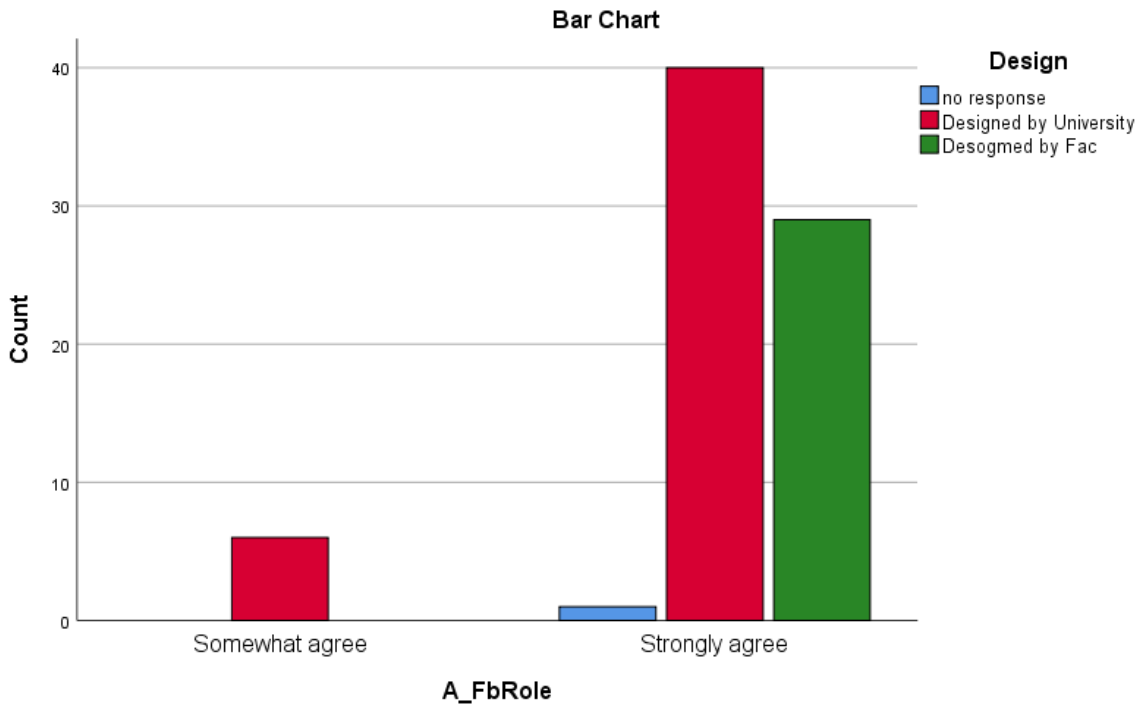
Designer of Online Course: Feedback is Part of Nurse Educator's Role

*A_FbRole * Design Crosstabulation*

Count

		Design			Total
		no response	Designed by University	Designed by Faculty	
A_FbRole	Somewhat agree	0	6	0	6
	Strongly agree	1	40	29	70
Total		1	46	29	76

Designer of Online Course: Feedback is Part of Nurse Educator's Role



Kruskal-Wallis Test: Attitudes and Strategies to Learn How to Provide Feedback

Ranking of Attitudes According to Strategies to Learn How to Provide Feedback

	LearnFB	N	Mean Rank
A_SUnd	Trial_Error	7	43.57
	FormCW	4	41.13
	ProDev	4	26.63
	TechTool	3	36.33
	combo 2+	58	38.64
	Total	76	
A_SEmo	Trial_Error	6	33.67
	FormCW	4	41.75
	ProDev	4	31.50
	TechTool	3	43.17
	combo 2+	58	38.37
	Total	75	
A_SIgno	Trial_Error	7	32.07
	FormCW	4	32.00
	ProDev	4	56.50
	TechTool	3	43.50
	combo 2+	58	38.22
	Total	76	
A_SClEx	Trial_Error	6	30.25
	FormCW	4	30.25
	ProDev	4	30.25
	TechTool	3	36.50
	combo 2+	58	39.95
	Total	75	
A_SGrde	Trial_Error	7	47.36
	FormCW	4	37.75
	ProDev	4	42.88
	TechTool	3	42.17
	combo 2+	58	36.99
	Total	76	
A_SAgree	Trial_Error	6	32.92
	FormCW	4	28.50
	ProDev	4	44.00
	TechTool	3	33.67
	combo 2+	58	38.99
	Total	75	
A_SComp	Trial_Error	7	42.79
	FormCW	4	31.25
	ProDev	4	46.00

	TechTool	3	29.50
	combo 2+	58	38.43
	Total	76	
A_SImpr	Trial_Error	7	31.29
	FormCW	4	28.50
	ProDev	4	35.00
	TechTool	3	37.00
	combo 2+	58	40.38
	Total	76	
A_SApply	Trial_Error	7	38.93
	FormCW	4	35.88
	ProDev	4	44.00
	TechTool	3	33.17
	combo 2+	58	38.53
	Total	76	
A_FbGr	Trial_Error	7	34.43
	FormCW	4	38.13
	ProDev	4	17.88
	TechTool	3	29.50
	combo 2+	58	40.91
	Total	76	
A_FbRole	Trial_Error	7	36.07
	FormCW	4	41.50
	ProDev	4	22.50
	TechTool	3	41.50
	combo 2+	58	39.53
	Total	76	
A_FbTime1	Trial_Error	7	34.79
	FormCW	4	24.75
	ProDev	4	20.00
	TechTool	3	37.00
	combo 2+	57	40.64
	Total	75	
A_FbCoach	Trial_Error	7	35.14
	FormCW	4	46.00
	ProDev	4	27.00
	TechTool	3	33.33
	combo 2+	58	39.45
	Total	76	
A_FbNow	Trial_Error	7	40.71
	FormCW	4	23.00
	ProDev	4	39.00
	TechTool	3	15.00

	combo 2+	57	39.86
	Total	75	
A_FbR_P	Trial_Error	7	38.93
	FormCW	4	18.50
	ProDev	4	46.25
	TechTool	3	42.17
	combo 2+	58	39.10
	Total	76	
A_FbTime2	Trial_Error	7	35.07
	FormCW	4	45.63
	ProDev	4	36.50
	TechTool	3	39.33
	combo 2+	58	38.52
	Total	76	
A_FbEff	Trial_Error	7	30.21
	FormCW	4	35.63
	ProDev	4	40.25
	TechTool	3	27.17
	combo 2+	58	40.16
	Total	76	
A_FbRefl	Trial_Error	7	35.93
	FormCW	4	43.00
	ProDev	4	34.75
	TechTool	3	30.83
	combo 2+	58	39.16
	Total	76	

Strategies to Learn How to Provide Feedback: Attitudes Toward Students (1)

	A_SUnd	A_SEmo	A_SIgno	A_SClEx	A_SGrde
Kruskal-Wallis H	2.173	1.078	4.411	3.614	1.760
df	4	4	4	4	4
Asymp. Sig.	.704	.898	.353	.461	.780

Strategies to Learn How to Provide Feedback: Attitudes Toward Students (2)

	A_SAgree	A_SComp	A_SImpr	A_SApply	A_FbGr
Kruskal-Wallis H	2.053	1.977	2.709	.735	5.878
df	4	4	4	4	4
Asymp. Sig.	.726	.740	.608	.947	.208

Strategies to Learn How to Provide Feedback: Practice Perceptions (1)

	A_FbRole	A_FbTime1	A_FbCoach	A_FbNow	A_FbR_P
Kruskal-Wallis H	11.188	6.689	4.164	6.208	4.238
df	4	4	4	4	4
Asymp. Sig.	.025	.153	.384	.184	.375

Strategies to Learn How to Provide Feedback: Practice Perceptions (2)

	A_FbTime2	A_FbEff	A_FbRefl
Kruskal-Wallis H	.693	2.724	.945
df	4	4	4
Asymp. Sig.	.952	.605	.918

Cross Tabulations: Strategies to Learn How to Provide Feedback and Significant Kruskal-Wallis

Strategies to Learn How to Provide Feedback: Feedback is Part of Nurse Educator's Role

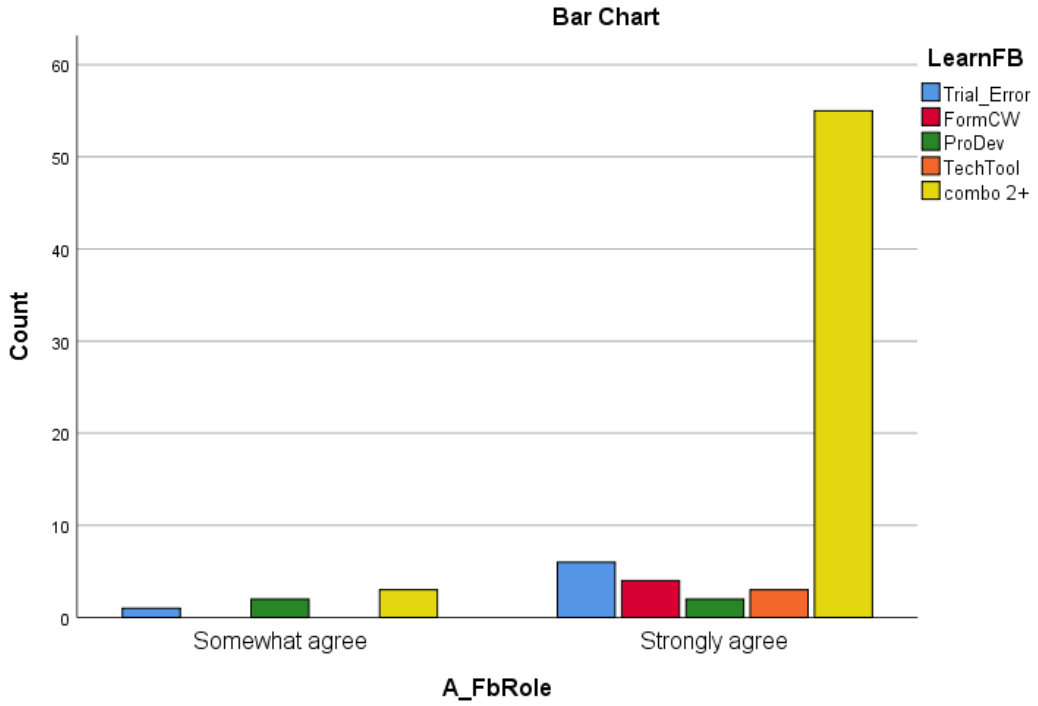
*A_FbRole * LearnFB Crosstabulation*
Count

		LearnFB			
		Trial_Error	FormCW	ProDev	TechTool
A_FbRole	Somewhat agree	1	0	2	0
	Strongly agree	6	4	2	3
Total		7	4	4	3

*A_FbRole * LearnFB Crosstabulation*
Count

		LearnFB	
		combo 2+	Total
A_FbRole	Somewhat agree	3	6
	Strongly agree	55	70
Total		58	76

Strategies to Learn How to Provide Feedback: Feedback is Part of Nurse Educator's Role



G.4 Kruskal-Wallis: Tools

Kruskal-Wallis Tests: Tools and Years Teaching in Nursing

Ranking Tools According to Years Teaching in Nursing

	YearsTeachNUR	N	Mean Rank
T_email	0-1	4	43.38
	1-3	10	40.35
	3-6	15	42.13
	6-10	16	34.50
	10+	30	36.30
	Total	75	
T_asynch	0-1	4	38.00
	1-3	11	41.41
	3-6	15	34.90
	6-10	15	38.23
	10+	29	36.91
	Total	74	
T_synch	0-1	4	27.50
	1-3	11	44.18
	3-6	15	29.53
	6-10	16	40.72
	10+	29	39.98
	Total	75	
T_phon	0-1	4	53.38
	1-3	11	40.68
	3-6	15	30.37
	6-10	16	37.00
	10+	30	40.58
	Total	76	
T_VPPT	0-1	4	32.50
	1-3	11	47.18
	3-6	15	36.63
	6-10	16	31.03
	10+	28	38.57
	Total	74	
T_Video	0-1	4	30.50
	1-3	11	44.91
	3-6	15	38.40
	6-10	16	33.00
	10+	28	37.68
	Total	74	
T_AudF	0-1	4	36.25
	1-3	11	40.41

	3-6	15	38.33
	6-10	16	33.19
	10+	28	38.55
	Total	74	
T_ShDoc	0-1	4	39.13
	1-3	11	38.95
	3-6	15	41.80
	6-10	16	36.88
	10+	30	37.47
	Total	76	
T_Oth	0-1	4	41.38
	1-3	11	44.14
	3-6	15	41.10
	6-10	16	37.53
	10+	30	35.27
	Total	76	
TPref1	0-1	4	14.88
	1-3	11	38.86
	3-6	15	37.47
	6-10	16	38.09
	10+	30	42.25
	Total	76	
SE_Rubric	0-1	4	39.00
	1-3	11	39.00
	3-6	15	36.47
	6-10	16	39.00
	10+	30	39.00
	Total	76	
SE_Instr	0-1	4	35.00
	1-3	11	41.05
	3-6	15	34.37
	6-10	16	39.75
	10+	30	39.43
	Total	76	
SE_Syllab	0-1	4	46.00
	1-3	11	39.09
	3-6	15	33.33
	6-10	16	43.63
	10+	30	37.13
	Total	76	
SE_Announ	0-1	4	37.50
	1-3	11	40.09
	3-6	15	31.80

	6-10	16	42.25
	10+	30	39.40
	Total	76	
SE_Other	0-1	4	46.50
	1-3	11	37.00
	3-6	15	39.53
	6-10	16	39.38
	10+	30	37.00
	Total	76	
S_RubCh	0-1	4	39.00
	1-3	11	37.27
	3-6	15	37.73
	6-10	16	39.00
	10+	30	39.00
	Total	76	
S_RubH	0-1	4	48.50
	1-3	11	36.41
	3-6	15	34.57
	6-10	16	41.38
	10+	30	38.37
	Total	76	
S_RubCom	0-1	4	40.00
	1-3	11	32.23
	3-6	15	39.37
	6-10	16	37.63
	10+	30	40.63
	Total	76	
S_RubCC	0-1	4	41.50
	1-3	11	44.09
	3-6	15	25.67
	6-10	16	41.50
	10+	30	40.87
	Total	76	
S_Rubric	1-3	5	11.20
	3-6	4	10.63
	6-10	4	13.50
	10+	10	12.35
	Total	23	

Years Teaching in Nursing: Tools (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	1.656	.722	5.515	5.023	4.634	3.209
df	4	4	4	4	4	4
Asymp. Sig.	.799	.949	.238	.285	.327	.523

Years Teaching in Nursing: Tools (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	1.171	.699	3.455	6.259	4.067	2.198
df	4	4	4	4	4	4
Asymp. Sig.	.883	.951	.485	.181	.397	.699

Years Teaching in Nursing: Tools (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	4.769	3.756	6.787	.104	3.074
df	4	4	4	4	4
Asymp. Sig.	.312	.440	.148	.999	.546

Years Teaching in Nursing: Tools (4)

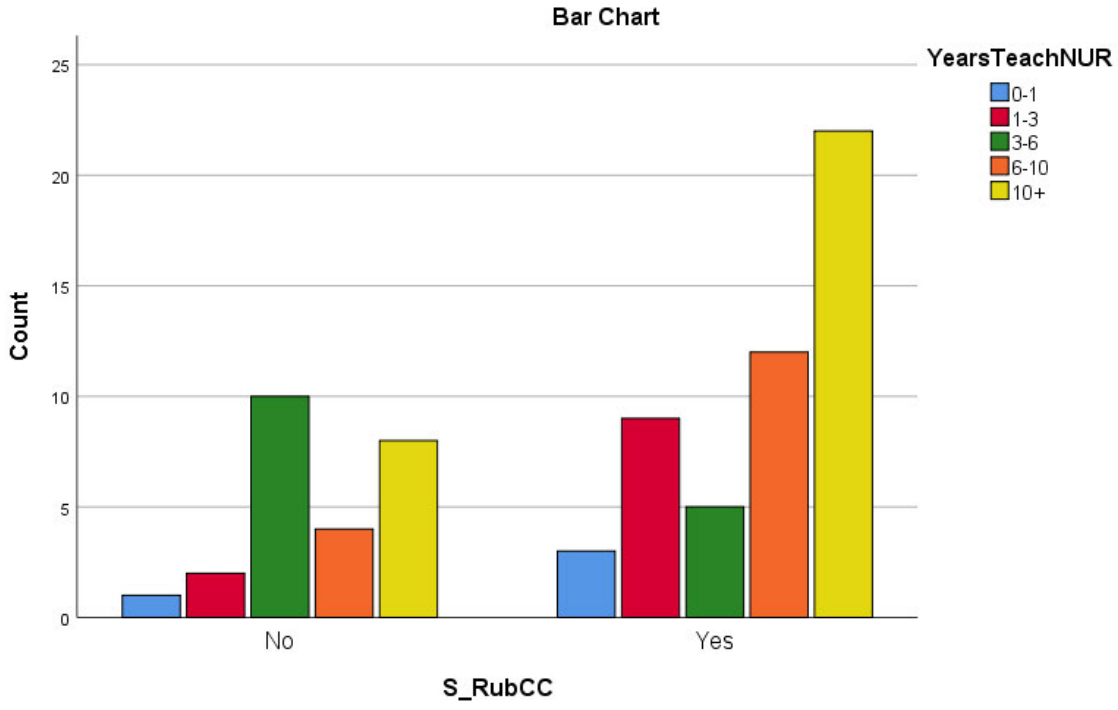
	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	2.000	9.790	1.338
df	4	4	3
Asymp. Sig.	.736	.044	.720

Cross Tabulations of Years Teaching in Nursing and Significant Kruskal-Wallis with Tools

Years Teaching in Nursing: Pattern of Commenting on Rubrics
*S_RubCC * YearsTeachNUR Crosstabulation*
Count

		YearsTeachNUR					
		0-1	1-3	3-6	6-10	10+	Total
S_RubCC	No	1	2	10	4	8	25
	Yes	3	9	5	12	22	51
Total		4	11	15	16	30	76

Years Teaching in Nursing: Pattern of Commenting on Rubrics



Kruskal-Wallis Test: Tools and Years Teaching Online

Ranking Tools According to Years Teaching Online

	YrsTchOL	N	Mean Rank
T_email	0-1	6	35.50
	1-3	18	44.06
	3-6	19	42.18
	6-10	17	34.71
	10+	15	30.17
	Total	75	
T_asynch	0-1	7	20.50
	1-3	18	46.56
	3-6	17	37.09
	6-10	17	40.15
	10+	15	32.03
	Total	74	
T_synch	0-1	7	40.43
	1-3	18	32.75
	3-6	18	36.81
	6-10	17	40.50
	10+	15	41.77
	Total	75	
T_phon	0-1	7	42.07
	1-3	18	39.22
	3-6	19	38.00
	6-10	17	32.56
	10+	15	43.33
	Total	76	
T_VPPT	0-1	7	37.14
	1-3	18	42.42
	3-6	18	38.14
	6-10	17	30.76
	10+	14	38.71
	Total	74	
T_Video	0-1	7	44.57
	1-3	18	38.61
	3-6	18	35.83
	6-10	17	34.18
	10+	14	38.71
	Total	74	
T_AudF	0-1	7	47.64
	1-3	18	33.53
	3-6	18	41.19

	6-10	17	32.24
	10+	14	39.18
	Total	74	
T_ShDoc	0-1	7	35.29
	1-3	18	42.06
	3-6	19	35.29
	6-10	17	43.38
	10+	15	34.27
	Total	76	
T_Oth	0-1	7	41.57
	1-3	18	43.14
	3-6	19	37.26
	6-10	17	35.56
	10+	15	36.40
	Total	76	
TPref1	0-1	7	29.86
	1-3	18	36.31
	3-6	19	38.26
	6-10	17	42.76
	10+	15	40.63
	Total	76	
SE_Rubric	0-1	7	39.00
	1-3	18	39.00
	3-6	19	37.00
	6-10	17	39.00
	10+	15	39.00
	Total	76	
SE_Instr	0-1	7	33.64
	1-3	18	36.06
	3-6	19	40.50
	6-10	17	37.79
	10+	15	41.97
	Total	76	
SE_Syllab	0-1	7	40.57
	1-3	18	41.78
	3-6	19	38.00
	6-10	17	37.06
	10+	15	35.87
	Total	76	
SE_Announ	0-1	7	36.14
	1-3	18	40.67
	3-6	19	39.00
	6-10	17	38.06

	10+	15	36.87
	Total	76	
SE_Other	0-1	7	42.43
	1-3	18	37.00
	3-6	19	41.00
	6-10	17	37.00
	10+	15	37.00
	Total	76	
S_RubCh	0-1	7	36.29
	1-3	18	36.89
	3-6	19	34.00
	6-10	17	44.59
	10+	15	40.27
	Total	76	
S_RubH	0-1	7	40.36
	1-3	18	37.94
	3-6	19	39.50
	6-10	17	36.21
	10+	15	39.63
	Total	76	
S_RubCom	0-1	7	33.21
	1-3	18	34.72
	3-6	19	39.50
	6-10	17	40.56
	10+	15	41.90
	Total	76	
S_RubCC	0-1	7	34.71
	1-3	18	40.44
	3-6	19	37.00
	6-10	17	39.82
	10+	15	38.33
	Total	76	
S_Rubric	0-1	2	7.75
	1-3	7	13.50
	3-6	4	10.63
	6-10	6	11.58
	10+	4	13.50
	Total	23	

Years Teaching Online and Tools (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	4.981	10.187	2.243	2.526	3.104	1.780
df	4	4	4	4	4	4
Asymp. Sig.	.289	.037	.691	.640	.541	.776

Years Teaching Online and Tools (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	4.702	3.386	2.958	2.312	3.000	2.762
df	4	4	4	4	4	4
Asymp. Sig.	.319	.495	.565	.679	.558	.598

Years Teaching Online and Tools (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	1.585	.675	6.115	3.126	.595
df	4	4	4	4	4
Asymp. Sig.	.811	.954	.191	.537	.964

Years Teaching Online and Tools (4)

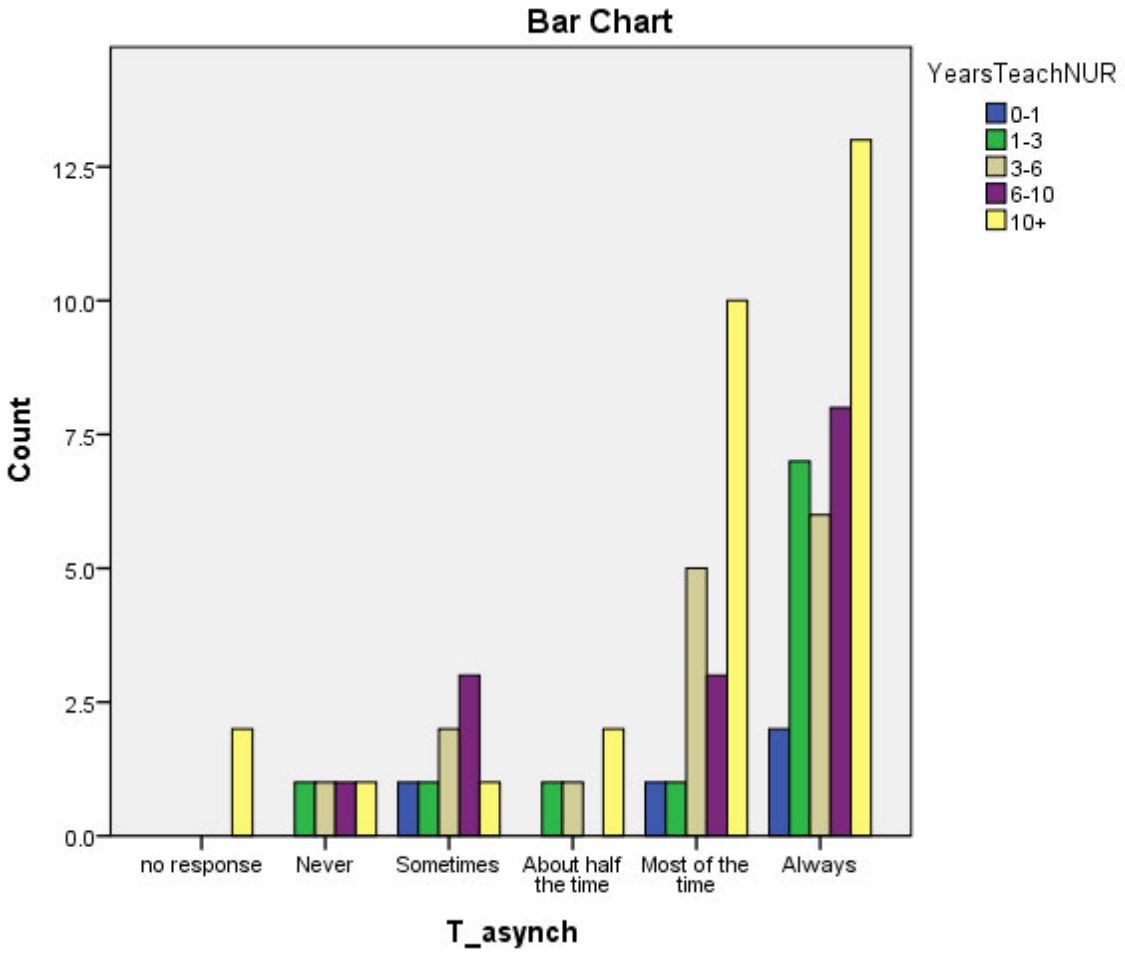
	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	2.382	.747	4.431
df	4	4	4
Asymp. Sig.	.666	.945	.351

Cross Tabulation: Asynchronous Tools and Years Teaching Online

T_asynch * YearsTeachNUR Crosstabulation

Count		YearsTeachNUR					Total
		0-1	1-3	3-6	6-10	10+	
T_asynch	no response	0	0	0	0	2	2
	Never	0	1	1	1	1	4
	Sometimes	1	1	2	3	1	8
	About half the time	0	1	1	0	2	4
	Most of the time	1	1	5	3	10	20
	Always	2	7	6	8	13	36
Total		4	11	15	15	29	74

Asynchronous Tools and Years Teaching Online



Kruskal-Wallis Test: Tools and Highest Degree

Ranking of Tools According to Highest Degree

	HDeg	N	Mean Rank
T_email	MSN	30	37.47
	PhD	19	41.68
	DNP	16	40.31
	EdD	4	16.38
	Other	6	37.25
	Total	75	
T_asynch	MSN	30	36.90
	PhD	19	32.82
	DNP	15	44.77
	EdD	4	36.50
	Other	6	37.83
	Total	74	
T_synch	MSN	31	35.61
	PhD	19	41.87
	DNP	15	39.37
	EdD	4	33.13
	Other	6	37.92
	Total	75	
T_phon	MSN	31	38.11
	PhD	19	39.26
	DNP	16	36.00
	EdD	4	48.88
	Other	6	37.83
	Total	76	
T_VPPT	MSN	31	33.37
	PhD	18	43.50
	DNP	15	43.20
	EdD	4	25.75
	Other	6	34.42
	Total	74	
T_Video	MSN	31	36.44
	PhD	18	41.08
	DNP	15	42.40
	EdD	4	23.00
	Other	6	29.67
	Total	74	
T_AudF	MSN	31	36.81
	PhD	18	41.19
	DNP	15	40.63

	EdD	4	28.63
	Other	6	28.08
	Total	74	
T_ShDoc	MSN	31	40.76
	PhD	19	36.61
	DNP	16	39.97
	EdD	4	33.00
	Other	6	32.58
	Total	76	
T_Oth	MSN	31	37.00
	PhD	19	35.08
	DNP	16	42.16
	EdD	4	42.25
	Other	6	44.83
	Total	76	
TPref1	MSN	31	35.40
	PhD	19	39.29
	DNP	16	40.59
	EdD	4	49.13
	Other	6	39.33
	Total	76	
SE_Rubric	MSN	31	37.77
	PhD	19	39.00
	DNP	16	39.00
	EdD	4	39.00
	Other	6	39.00
	Total	76	
SE_Instr	MSN	31	38.37
	PhD	19	38.50
	DNP	16	37.38
	EdD	4	44.50
	Other	6	38.17
	Total	76	
SE_Syllab	MSN	31	38.65
	PhD	19	40.00
	DNP	16	36.50
	EdD	4	46.00
	Other	6	33.33
	Total	76	

SE_Announ	MSN	31	39.65
	PhD	19	41.00
	DNP	16	32.75
	EdD	4	37.50
	Other	6	40.67
	Total	76	
SE_Other	MSN	31	39.45
	PhD	19	39.00
	DNP	16	37.00
	EdD	4	37.00
	Other	6	37.00
	Total	76	
S_RubCh	MSN	31	37.16
	PhD	19	40.00
	DNP	16	39.00
	EdD	4	20.00
	Other	6	51.67
	Total	76	
S_RubH	MSN	31	39.31
	PhD	19	35.50
	DNP	16	39.00
	EdD	4	48.50
	Other	6	35.83
	Total	76	
S_RubCom	MSN	31	34.79
	PhD	19	39.50
	DNP	16	44.75
	EdD	4	30.50
	Other	6	43.17
	Total	76	
S_RubCC	MSN	31	37.52
	PhD	19	37.00
	DNP	16	39.13
	EdD	4	51.00
	Other	6	38.33
	Total	76	
S_Rubric	MSN	12	11.58
	PhD	6	11.58
	DNP	2	13.50
	EdD	1	13.50
	Other	2	13.50
	Total	23	

Highest Degree and Tools (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	5.193	3.065	1.485	1.316	5.712	5.181
df	4	4	4	4	4	4
Asymp. Sig.	.268	.547	.829	.859	.222	.269

Highest Degree and Tools (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	3.352	1.713	3.414	1.954	1.452	.850
df	4	4	4	4	4	4
Asymp. Sig.	.501	.788	.491	.744	.835	.932

Highest Degree and Tools (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	2.125	2.836	1.646	6.870	2.412
df	4	4	4	4	4
Asymp. Sig.	.713	.586	.800	.143	.661

Highest Degree and Tools (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	4.842	2.180	.917
df	4	4	4
Asymp. Sig.	.304	.703	.922

Kruskal-Wallis Test: Tools and Formal Education on Teaching Strategies

Ranking of Tools According to Formal Education on Teaching Strategies.

	EdTch	N	Mean Rank
T_email	no	20	32.23
	yes	55	40.10
	Total	75	
T_asynch	no	20	36.90
	yes	54	37.72
	Total	74	
T_synch	no	20	31.63
	yes	55	40.32
	Total	75	
T_phon	no	20	36.75
	yes	56	39.13
	Total	76	
T_VPPT	no	20	35.88
	yes	54	38.10
	Total	74	
T_Video	no	20	38.55
	yes	54	37.11
	Total	74	
T_AudF	no	20	36.58
	yes	54	37.84
	Total	74	
T_ShDoc	no	20	47.80
	yes	56	35.18
	Total	76	
T_Oth	no	20	40.93
	yes	56	37.63
	Total	76	
TPref1	no	20	40.60
	yes	56	37.75
	Total	76	
SE_Rubric	no	20	37.10
	yes	56	39.00
	Total	76	
SE_Instr	no	20	36.90
	yes	56	39.07
	Total	76	
SE_Syllab	no	20	36.50
	yes	56	39.21
	Total	76	

SE_Announ	no	20	39.40
	yes	56	38.18
	Total	76	
SE_Other	no	20	38.90
	yes	56	38.36
	Total	76	
S_RubCh	no	20	40.90
	yes	56	37.64
	Total	76	
S_RubH	no	20	40.90
	yes	56	37.64
	Total	76	
S_RubCom	no	20	41.90
	yes	56	37.29
	Total	76	
S_RubCC	no	20	33.90
	yes	56	40.14
	Total	76	
S_Rubric	no	7	10.21
	yes	16	12.78
	Total	23	

Tools and Formal Education on Teaching Strategies (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	2.122	.025	2.818	.199	.182	.085
df	1	1	1	1	1	1
Asymp. Sig.	.145	.875	.093	.655	.670	.770

Tools and Formal Education on Teaching Strategies (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	.063	6.794	.679	.280	2.800	.357
df	1	1	1	1	1	1
Asymp. Sig.	.802	.009	.410	.597	.094	.550

Tools and Formal Education on Teaching Strategies (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	.468	.087	.078	.428	.591
df	1	1	1	1	1
Asymp. Sig.	.494	.769	.780	.513	.442

Tools and Formal Education on Teaching Strategies (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	1.043	1.778	2.046
df	1	1	1
Asymp. Sig.	.307	.182	.153

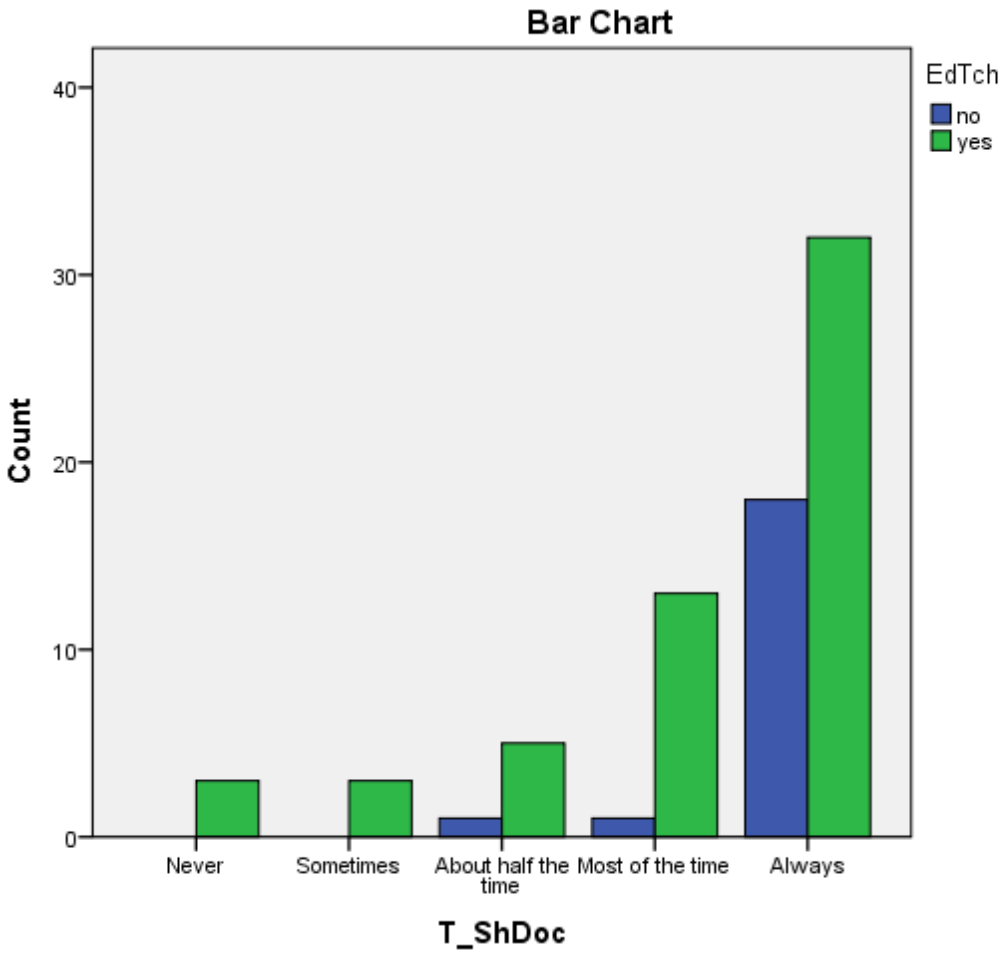
Cross Tabulation Shared Document and Formal Education of Teaching Strategies

T_ShDoc * EdTch Crosstabulation

Count

		EdTch		Total
		no	yes	
T_ShDoc	Never	0	3	3
	Sometimes	0	3	3
	About half the time	1	5	6
	Most of the time	1	13	14
	Always	18	32	50
Total		20	56	76

Shared Document and Formal Education of Teaching Strategies



Kruskal-Wallis Test: Tools and CNE

Ranking of Tools According CNE

	CNE	N	Mean Rank
T_email	no	57	38.61
	yes	18	36.06
	Total	75	
T_asynch	no	56	36.84
	yes	18	39.56
	Total	74	
T_synch	no	57	35.11
	yes	18	47.17
	Total	75	
T_phon	no	58	35.89
	yes	18	46.92
	Total	76	
T_VPPT	no	57	36.63
	yes	17	40.41
	Total	74	
T_Video	no	57	38.04
	yes	17	35.68
	Total	74	
T_AudF	no	57	38.38
	yes	17	34.56
	Total	74	
T_ShDoc	no	58	37.27
	yes	18	42.47
	Total	76	
T_Oth	no	58	38.22
	yes	18	39.42
	Total	76	
TPref1	no	58	38.25
	yes	18	39.31
	Total	76	
SE_Rubric	no	58	38.34
	yes	18	39.00
	Total	76	
SE_Instr	no	58	37.29
	yes	18	42.39
	Total	76	
SE_Syllab	no	58	37.48
	yes	18	41.78
	Total	76	

SE_Announ	no	58	39.14
	yes	18	36.44
	Total	76	
SE_Other	no	58	38.97
	yes	18	37.00
	Total	76	
S_RubCh	no	58	38.34
	yes	18	39.00
	Total	76	
S_RubH	no	58	36.71
	yes	18	44.28
	Total	76	
S_RubCom	no	58	37.71
	yes	18	41.06
	Total	76	
S_RubCC	no	58	37.24
	yes	18	42.56
	Total	76	
S_Rubric	no	13	10.85
	yes	10	13.50
	Total	23	

Tools and CNE (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	.209	.252	5.060	4.004	.470	.207
df	1	1	1	1	1	1
Asymp. Sig.	.648	.616	.024	.045	.493	.649

Tools and CNE (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	.510	1.077	.084	.036	.310	1.833
df	1	1	1	1	1	1
Asymp. Sig.	.475	.299	.772	.850	.577	.176

Tools and CNE (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	1.093	.392	.957	.016	2.977
df	1	1	1	1	1
Asymp. Sig.	.296	.531	.328	.899	.084

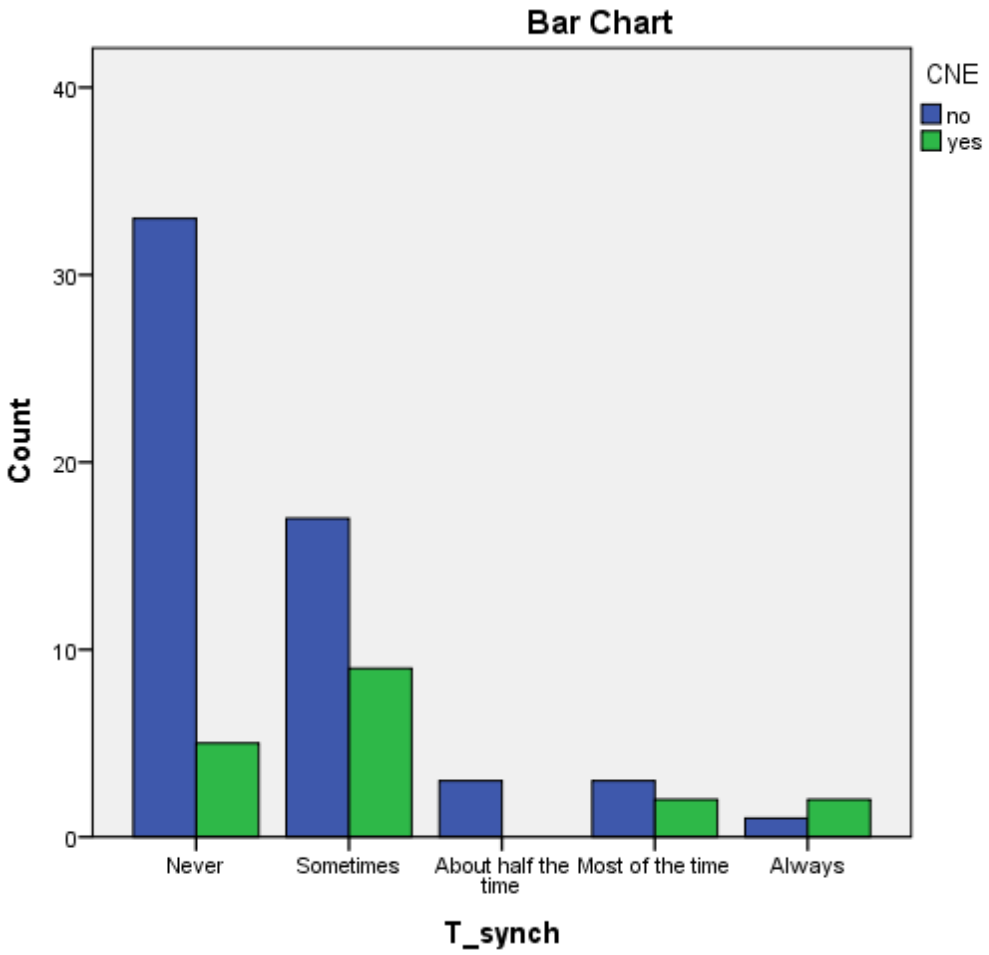
Tools and CNE (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	.512	1.201	2.538
df	1	1	1
Asymp. Sig.	.474	.273	.111

Cross Tabulation Synchronous Tools and CNE

Crosstab T_synch * CNE				
Count				
		CNE		Total
		no	yes	
T_synch	Never	33	5	38
	Sometimes	17	9	26
	About half the time	3	0	3
	Most of the time	3	2	5
	Always	1	2	3
Total		57	18	75

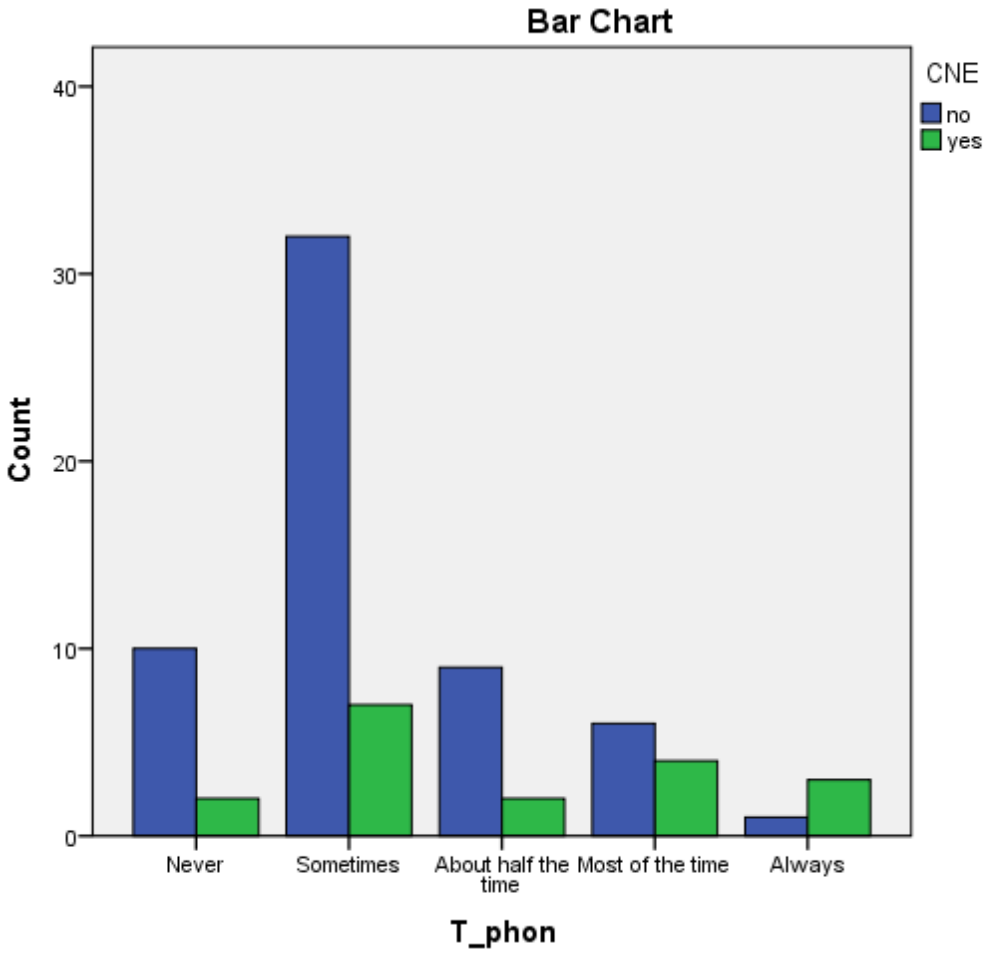
Synchronous Tools and CNE



Cross Tabulations: Phone and CNE

Crosstab T_phon * CNE				
Count				
		CNE		Total
		no	yes	
T_phon	Never	10	2	12
	Sometimes	32	7	39
	About half the time	9	2	11
	Most of the time	6	4	10
	Always	1	3	4
Total		58	18	76

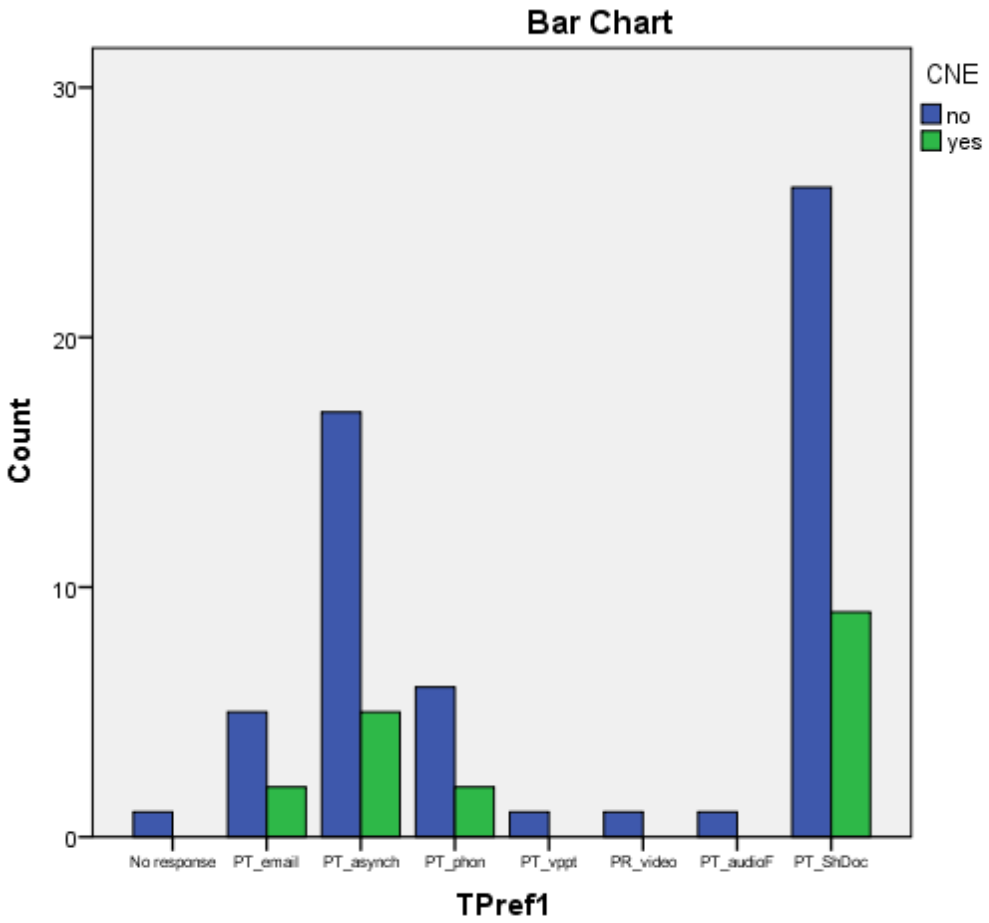
Phone and CNE



Cross Tabulation: Preference 1 and CNE

Crosstabulation TPref1 * CNE				
Count				
		CNE		Total
		no	yes	
TPref 1	No response	1	0	1
	PT_email	5	2	7
	PT_asynch	17	5	22
	PT_phon	6	2	8
	PT_vppt	1	0	1
	PR_video	1	0	1
	PT_audioF	1	0	1
	PT_ShDoc	26	9	35
Total		58	18	76

Preference 1 and CNE



Kruskal-Wallis Test: Tools and Employment Status

Ranking of Tools According to Employment Status

	Employ	N	Mean Rank
T_email	Not employed at a nursing program at this time	4	40.13
	Part-time	25	37.62
	Full-time	45	37.20
	Total	74	
T_asynch	Not employed at a nursing program at this time	4	37.75
	Part-time	25	41.04
	Full-time	44	34.64
	Total	73	
T_synch	Not employed at a nursing program at this time	4	27.38
	Part-time	25	30.70
	Full-time	45	42.18
	Total	74	
T_phon	Not employed at a nursing program at this time	4	46.38
	Part-time	25	36.60
	Full-time	46	38.03
	Total	75	
T_VPPT	Not employed at a nursing program at this time	4	31.75
	Part-time	25	37.56
	Full-time	44	37.16
	Total	73	
T_Video	Not employed at a nursing program at this time	4	30.38
	Part-time	25	37.76
	Full-time	44	37.17
	Total	73	
T_AudF	Not employed at a nursing program at this time	4	35.50
	Part-time	25	33.14

	Full-time	44	39.33
	Total	73	
T_ShDoc	Not employed at a nursing program at this time	4	38.75
	Part-time	25	41.94
	Full-time	46	35.79
	Total	75	
T_Oth	Not employed at a nursing program at this time	4	40.75
	Part-time	25	40.90
	Full-time	46	36.18
	Total	75	
TPref1	Not employed at a nursing program at this time	4	24.25
	Part-time	25	34.64
	Full-time	46	41.02
	Total	75	
SE_Rubric	Not employed at a nursing program at this time	4	38.50
	Part-time	25	37.00
	Full-time	46	38.50
	Total	75	
SE_Instr	Not employed at a nursing program at this time	4	34.63
	Part-time	25	36.50
	Full-time	46	39.11
	Total	75	
SE_Syllab	Not employed at a nursing program at this time	4	36.13
	Part-time	25	36.50
	Full-time	46	38.98
	Total	75	
SE_Announ	Not employed at a nursing program at this time	4	37.13
	Part-time	25	40.50
	Full-time	46	36.72
	Total	75	

SE_Other	Not employed at a nursing program at this time	4	45.88
	Part-time	25	38.00
	Full-time	46	37.32
	Total	75	
S_RubCh	Not employed at a nursing program at this time	4	38.75
	Part-time	25	41.00
	Full-time	46	36.30
	Total	75	
S_RubH	Not employed at a nursing program at this time	4	47.75
	Part-time	25	38.00
	Full-time	46	37.15
	Total	75	
S_RubCom	Not employed at a nursing program at this time	4	39.63
	Part-time	25	37.00
	Full-time	46	38.40
	Total	75	
S_RubCC	Not employed at a nursing program at this time	4	41.13
	Part-time	25	38.50
	Full-time	46	37.46
	Total	75	
S_Rubric	Part-time	7	11.43
	Full-time	15	11.53
	Total	22	

Kruskal-Wallis: Tools and Employment Status (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	.077	1.680	6.679	.807	.306	.561
df	2	2	2	2	2	2
Asymp. Sig.	.962	.432	.035	.668	.858	.756

Kruskal-Wallis: Tools and Employment Status (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	1.692	1.811	1.694	3.511	2.000	.827
df	2	2	2	2	2	2
Asymp. Sig.	.429	.404	.429	.173	.368	.661

Kruskal-Wallis: Tools and Employment Status (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	.501	.941	4.927	1.011	1.590
df	2	2	2	2	2
Asymp. Sig.	.778	.625	.085	.603	.452

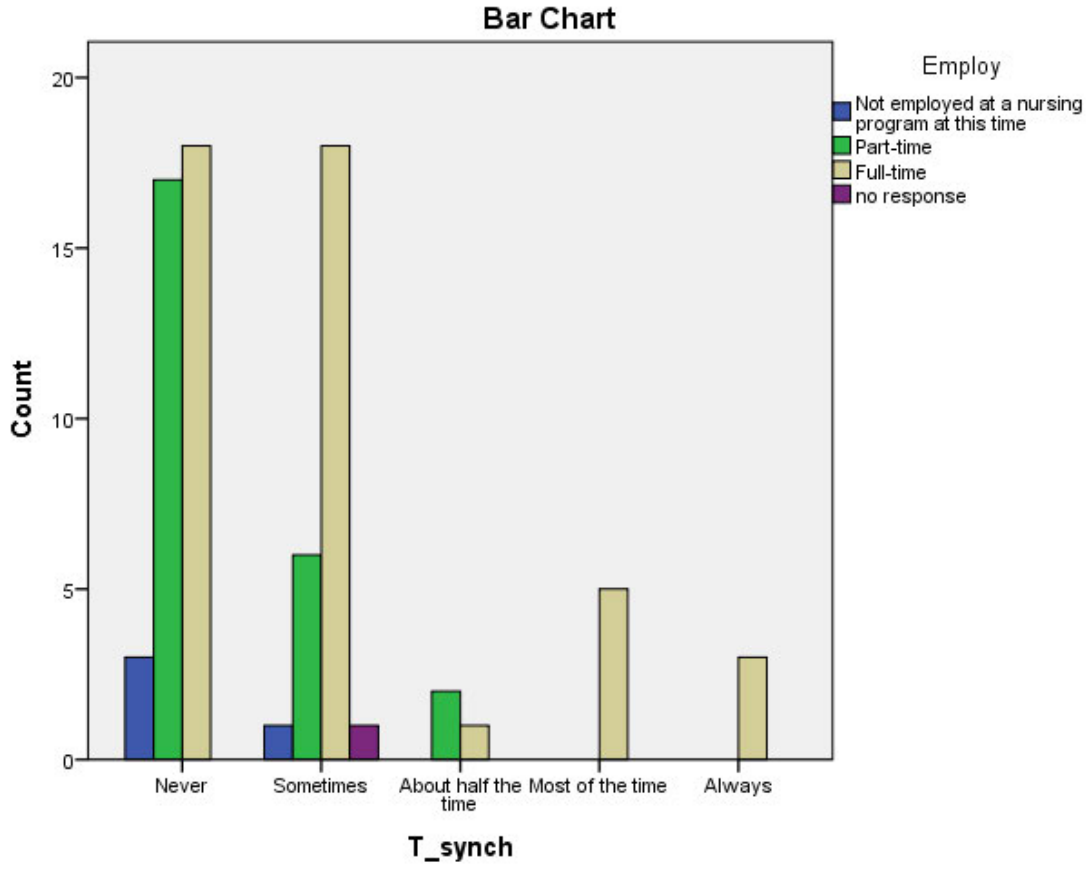
Kruskal-Wallis: Tools and Employment Status (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	.146	.186	.004
df	2	2	1
Asymp. Sig.	.930	.911	.953

Cross Tabulation: *Synchronous and Employment Status*

Crosstabulation T_synch * Employ						
		Employ				Total
		Not employed at a nursing program at this time	Part-time	Full-time	no response	
T_synch	Never	3	17	18	0	38
	Sometimes	1	6	18	1	26
	About half the time	0	2	1	0	3
	Most of the time	0	0	5	0	5
	Always	0	0	3	0	3
Total		4	25	45	1	75

Synchronous and Employment Status



Kruskal-Wallis Test: Tools and Employed at More Than One College of Nursing

Ranking of Tools and Employment at More Than One College of Nursing

	Plus	N	Mean Rank
T_email	Not employed at a nursing program	1	38.00
	no	56	39.20
	yes	18	34.28
	Total	75	
T_asynch	Not employed at a nursing program	1	28.50
	no	56	35.64
	yes	17	44.15
	Total	74	
T_synch	Not employed at a nursing program	1	51.50
	no	56	40.85
	yes	18	28.39
	Total	75	
T_phon	Not employed at a nursing program	1	67.50
	no	57	39.90
	yes	18	32.44
	Total	76	
T_VPPT	Not employed at a nursing program	1	46.00
	no	55	38.08
	yes	18	35.25
	Total	74	
T_Video	Not employed at a nursing program	1	23.00
	no	55	38.51
	yes	18	35.22
	Total	74	
T_AudF	Not employed at a nursing program	1	51.50
	no	55	37.00
	yes	18	38.25
	Total	74	
T_ShDoc	Not employed at a nursing program	1	51.50
	no	57	38.93

	yes	18	36.42
	Total	76	
T_Oth	Not employed at a nursing program	1	72.50
	no	57	38.75
	yes	18	35.81
	Total	76	
TPref1	Not employed at a nursing program	1	19.50
	no	57	39.86
	yes	18	35.25
	Total	76	
SE_Rubric	Not employed at a nursing program	1	39.00
	no	57	38.33
	yes	18	39.00
	Total	76	
SE_Instr	Not employed at a nursing program	1	44.50
	no	57	36.50
	yes	18	44.50
	Total	76	
SE_Syllab	Not employed at a nursing program	1	46.00
	no	57	37.33
	yes	18	41.78
	Total	76	
SE_Announ	Not employed at a nursing program	1	47.00
	no	57	37.00
	yes	18	42.78
	Total	76	
SE_Other	Not employed at a nursing program	1	75.00
	no	57	37.67
	yes	18	39.11
	Total	76	
S_RubCh	Not employed at a nursing program	1	58.00
	no	57	37.33
	yes	18	41.11
	Total	76	

S_RubH	Not employed at a nursing program	1	67.50
	no	57	37.50
	yes	18	40.06
	Total	76	
S_RubCom	Not employed at a nursing program	1	49.50
	no	57	38.83
	yes	18	36.83
	Total	76	
S_RubCC	Not employed at a nursing program	1	51.00
	no	57	38.33
	yes	18	38.33
	Total	76	
S_Rubric	no	20	12.35
	yes	3	9.67
	Total	23	

Tools and Employed at More Than One College of Nursing (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	.769	2.567	5.846	3.867	.457	1.015
df	2	2	2	2	2	2
Asymp. Sig.	.681	.277	.054	.145	.796	.602

Tools and Employed at More Than One College of Nursing (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	.587	.746	5.486	1.536	.333	4.688
df	2	2	2	2	2	2
Asymp. Sig.	.746	.689	.064	.464	.846	.096

Tools and Employed at More Than One College of Nursing (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	1.412	2.085	24.848	1.588	3.560
df	2	2	2	2	2
Asymp. Sig.	.494	.352	.000	.452	.169

Tools and Employed at More Than One College of Nursing (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	.589	.490	1.198
df	2	2	1
Asymp. Sig.	.745	.783	.274

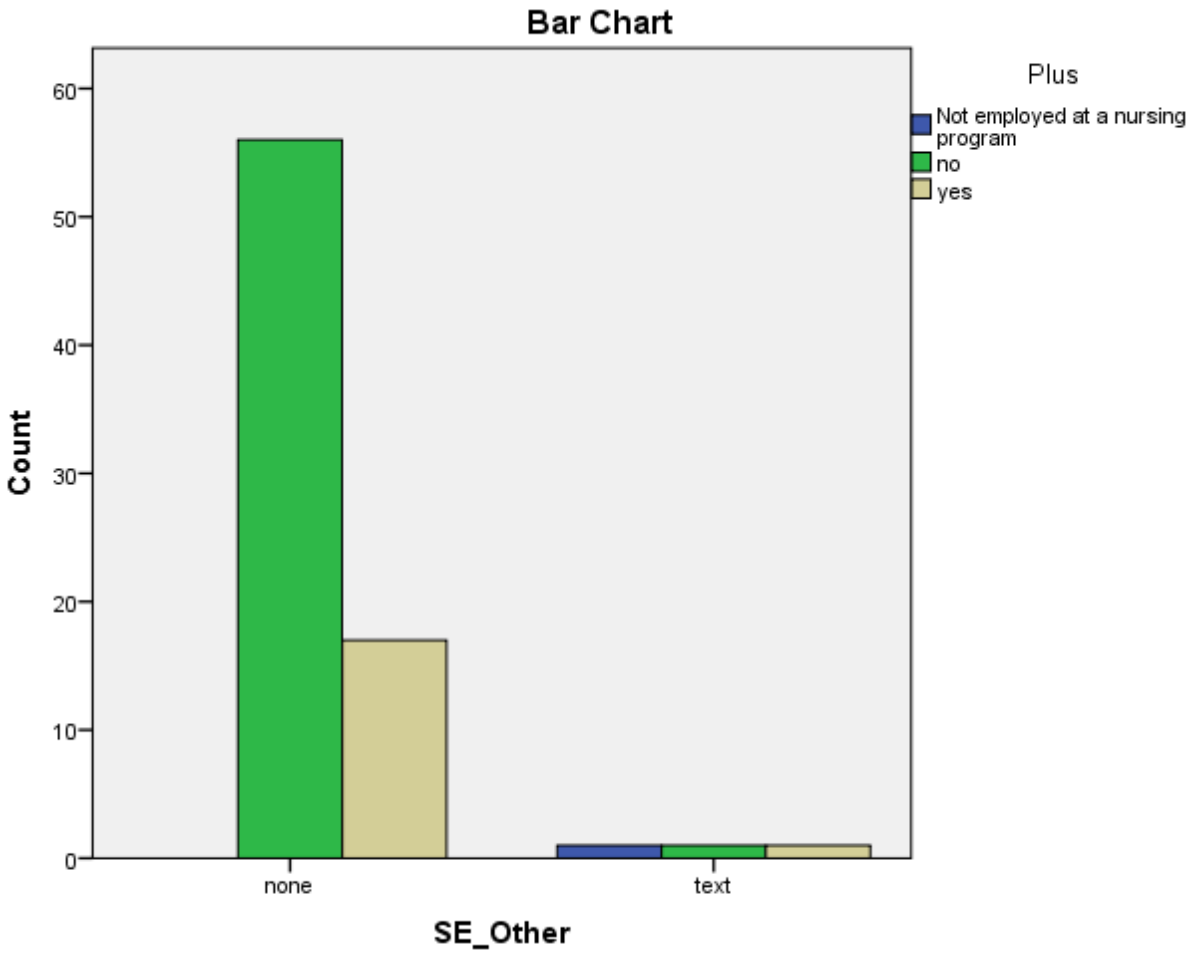
Cross Tabulation: Tools: Expectations via other Formats and Employed at one or more

*Crosstabulation SE_Other * Plus*

Count

		Plus			
		Not employed at a nursing program	no	yes	Total
SE_Other	none	0	56	17	73
	text	1	1	1	3
Total		1	57	18	76

Expectations via other Formats and Employed at one or more



Kruskal-Wallis Test With Employed at Another Non-Teaching Job

Ranking of tools with Employed at Another Non-Teaching Job

	Oth_Job	N	Mean Rank
T_email	no	32	38.77
	Yes, non-nursing	4	16.38
	Yes, another nursing pro	39	39.59
	Total	75	
T_asynch	no	31	34.63
	Yes, non-nursing	4	36.50
	Yes, another nursing pro	39	39.88
	Total	74	
T_synch	no	32	40.67
	Yes, non-nursing	4	49.13
	Yes, another nursing pro	39	34.67
	Total	75	
T_phon	no	32	37.67
	Yes, non-nursing	4	51.50
	Yes, another nursing pro	40	37.86
	Total	76	
T_VPPT	no	31	39.63
	Yes, non-nursing	4	25.75
	Yes, another nursing pro	39	37.01
	Total	74	
T_Video	no	31	40.27
	Yes, non-nursing	4	34.38
	Yes, another nursing pro	39	35.62
	Total	74	
T_AudF	no	31	38.63
	Yes, non-nursing	4	40.50
	Yes, another nursing pro	39	36.29
	Total	74	
T_ShDoc	no	32	37.20
	Yes, non-nursing	4	43.50
	Yes, another nursing pro	40	39.04
	Total	76	
T_Oth	no	32	37.03
	Yes, non-nursing	4	41.38
	Yes, another nursing pro	40	39.39
	Total	76	
TPref1	no	32	40.56
	Yes, non-nursing	4	44.63
	Yes, another nursing pro	40	36.24

	Total	76	
SE_Rubric	no	32	39.00
	Yes, non-nursing	4	39.00
	Yes, another nursing pro	40	38.05
	Total	76	
SE_Instr	no	32	38.56
	Yes, non-nursing	4	44.50
	Yes, another nursing pro	40	37.85
	Total	76	
SE_Syllab	no	32	40.06
	Yes, non-nursing	4	46.00
	Yes, another nursing pro	40	36.50
	Total	76	
SE_Announ	no	32	37.50
	Yes, non-nursing	4	47.00
	Yes, another nursing pro	40	38.45
	Total	76	
SE_Other	no	32	37.00
	Yes, non-nursing	4	46.50
	Yes, another nursing pro	40	38.90
	Total	76	
S_RubCh	no	32	37.81
	Yes, non-nursing	4	39.00
	Yes, another nursing pro	40	39.00
	Total	76	
S_RubH	no	32	41.38
	Yes, non-nursing	4	39.00
	Yes, another nursing pro	40	36.15
	Total	76	
S_RubCom	no	32	38.81
	Yes, non-nursing	4	40.00
	Yes, another nursing pro	40	38.10
	Total	76	
S_RubCC	no	32	37.94
	Yes, non-nursing	4	41.50
	Yes, another nursing pro	40	38.65
	Total	76	
S_Rubric	no	11	13.50
	Yes, non-nursing	1	13.50
	Yes, another nursing pro	11	10.36
	Total	23	

Kruskal-Wallis with Tools and Employed at another Non-Teaching Job (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	4.638	1.205	2.941	1.712	1.764	1.175
df	2	2	2	2	2	2
Asymp. Sig.	.098	.547	.230	.425	.414	.556

Kruskal-Wallis with Tools and Employed at another Non-Teaching Job (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	.353	.479	.568	1.149	.900	.828
df	2	2	2	2	2	2
Asymp. Sig.	.838	.787	.753	.563	.638	.661

Kruskal-Wallis with Tools and Employed at another Non-Teaching Job (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	1.998	1.264	6.027	.071	1.839
df	2	2	2	2	2
Asymp. Sig.	.368	.532	.049	.965	.399

Kruskal-Wallis with Tools and Employed at another Non-Teaching Job (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	.062	.146	3.600
df	2	2	2
Asymp. Sig.	.970	.930	.165

Kruskal-Wallis Test Tools and Design of Course

Ranking Tools According to Design of Course

	Design	N	Mean Rank
T_email	Designed by University	45	36.94
	Designed by Faculty	29	38.36
	Total	74	
T_asynch	Designed by University	44	36.58
	Designed by Faculty	29	37.64
	Total	73	
T_synch	Designed by University	45	33.06
	Designed by Faculty	29	44.40
	Total	74	
T_phon	Designed by University	46	36.12
	Designed by Faculty	29	40.98
	Total	75	
T_VPPT	Designed by University	45	33.91
	Designed by Faculty	28	41.96
	Total	73	
T_Video	Designed by University	45	35.70
	Designed by Faculty	28	39.09
	Total	73	
T_AudF	Designed by University	45	36.87
	Designed by Faculty	28	37.21
	Total	73	
T_ShDoc	Designed by University	46	38.40
	Designed by Faculty	29	37.36
	Total	75	
T_Oth	Designed by University	46	38.37
	Designed by Faculty	29	37.41
	Total	75	
TPref1	Designed by University	46	35.51
	Designed by Faculty	29	41.95
	Total	75	
SE_Rubric	Designed by University	46	37.68
	Designed by Faculty	29	38.50
	Total	75	
SE_Instr	Designed by University	46	36.66
	Designed by Faculty	29	40.12
	Total	75	
SE_Syllab	Designed by University	46	35.72
	Designed by Faculty	29	41.62
	Total	75	

SE_Announ	Designed by University	46	38.66
	Designed by Faculty	29	36.95
	Total	75	
SE_Other	Designed by University	46	38.13
	Designed by Faculty	29	37.79
	Total	75	
S_RubCh	Designed by University	46	38.25
	Designed by Faculty	29	37.60
	Total	75	
S_RubH	Designed by University	46	38.78
	Designed by Faculty	29	36.76
	Total	75	
S_RubCom	Designed by University	46	38.40
	Designed by Faculty	29	37.36
	Total	75	
S_RubCC	Designed by University	46	37.77
	Designed by Faculty	29	38.36
	Total	75	
S_Rubric	Designed by University	15	11.20
	Designed by Faculty	8	13.50
	Total	23	

Kruskal-Wallis: Tools and Design of Course (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	.085	.050	5.974	1.042	2.909	.582
df	1	1	1	1	1	1
Asymp. Sig.	.771	.823	.015	.307	.088	.445

Kruskal-Wallis: Tools and Design of Course (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	.006	.057	.074	1.764	.630	1.110
df	1	1	1	1	1	1
Asymp. Sig.	.939	.812	.785	.184	.427	.292

Kruskal-Wallis: Tools and Design of Course (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	2.718	.219	.037	.021	.280
df	1	1	1	1	1
Asymp. Sig.	.099	.640	.848	.885	.597

Kruskal-Wallis: Tools and Design of Course (4)

	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	.065	.020	1.760
df	1	1	1
Asymp. Sig.	.799	.888	.185

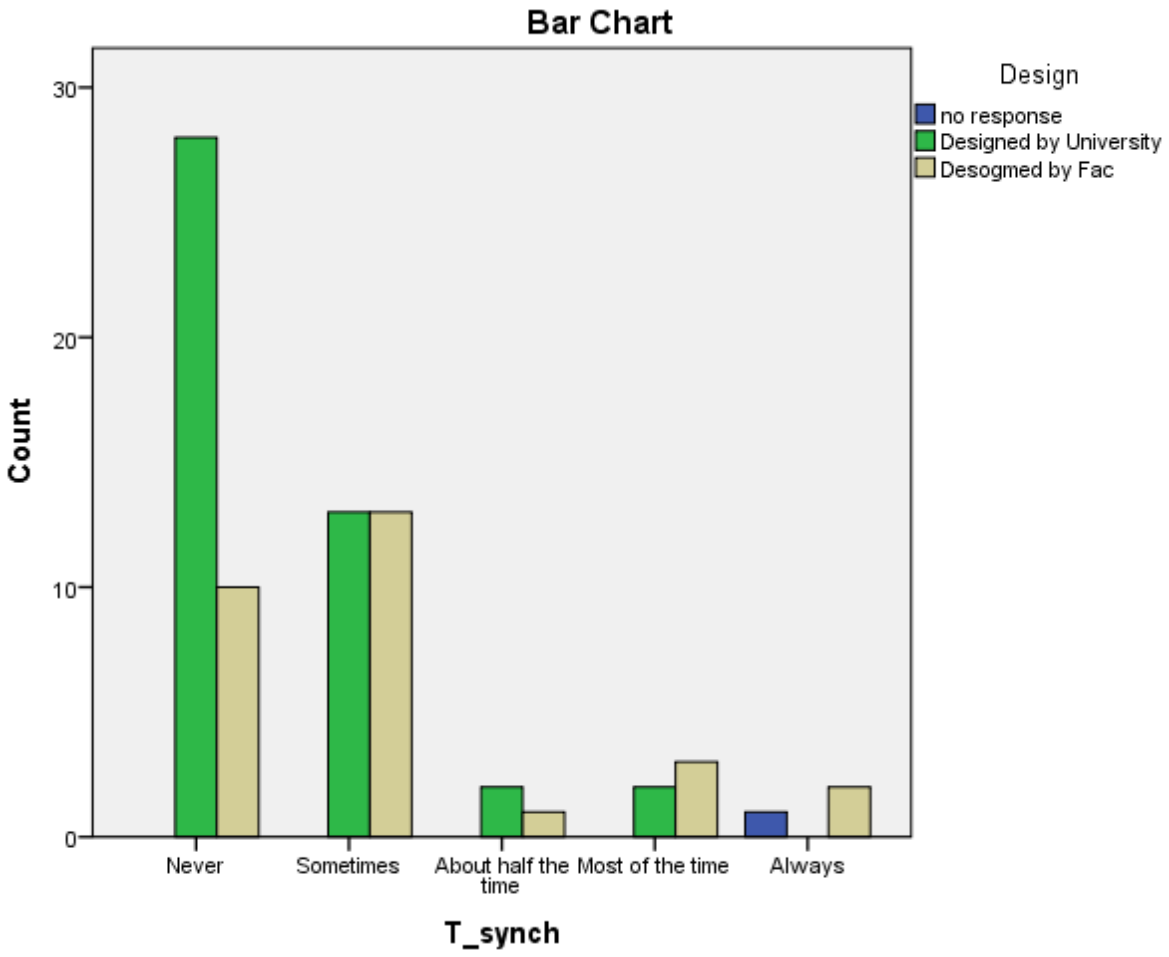
Cross Tabulations Synchronous and Design

Crosstabulation T_synch * Design

Count

		Design			
		no response	Designed by University	Designed by Faculty	Total
T_synch	Never	0	28	10	38
	Sometimes	0	13	13	26
	About half the time	0	2	1	3
	Most of the time	0	2	3	5
	Always	1	0	2	3
Total		1	45	29	75

Synchronous and Design



Kruskal-Wallis Test Tools and Strategies Learned to Provide Feedback

Ranking of Tools According to Strategies Learned to Provide Feedback

	LearnFB	N	Mean Rank
T_email	Trial_Error	6	26.92
	FormCW	4	37.88
	ProDev	4	36.00
	TechTool	3	41.50
	combo 2+	58	39.11
	Total	75	
T_asynch	Trial_Error	7	30.50
	FormCW	4	49.50
	ProDev	4	38.00
	TechTool	3	29.83
	combo 2+	56	37.89
	Total	74	
T_synch	Trial_Error	7	40.43
	FormCW	4	43.50
	ProDev	4	40.13
	TechTool	3	40.83
	combo 2+	57	37.02
	Total	75	
T_phon	Trial_Error	7	40.50
	FormCW	4	40.88
	ProDev	4	49.75
	TechTool	3	32.00
	combo 2+	58	37.66
	Total	76	
T_VPPT	Trial_Error	7	29.43
	FormCW	4	39.00
	ProDev	4	44.00
	TechTool	3	28.00
	combo 2+	56	38.45
	Total	74	
T_Video	Trial_Error	7	33.79
	FormCW	4	41.88
	ProDev	4	33.00
	TechTool	3	46.33
	combo 2+	56	37.50
	Total	74	
T_AudF	Trial_Error	7	43.29
	FormCW	4	28.63
	ProDev	4	36.25

	TechTool	3	48.50
	combo 2+	56	36.91
	Total	74	
T_ShDoc	Trial_Error	7	51.50
	FormCW	4	33.00
	ProDev	4	41.00
	TechTool	3	36.00
	combo 2+	58	37.27
	Total	76	
T_Oth	Trial_Error	7	36.93
	FormCW	4	31.00
	ProDev	4	31.00
	TechTool	3	43.67
	combo 2+	58	39.46
	Total	76	
TPref1	Trial_Error	7	33.79
	FormCW	4	29.38
	ProDev	4	39.25
	TechTool	3	50.83
	combo 2+	58	39.01
	Total	76	
SE_Rubric	Trial_Error	7	33.57
	FormCW	4	39.00
	ProDev	4	39.00
	TechTool	3	39.00
	combo 2+	58	39.00
	Total	76	
SE_Instr	Trial_Error	7	33.64
	FormCW	4	44.50
	ProDev	4	35.00
	TechTool	3	44.50
	combo 2+	58	38.60
	Total	76	
SE_Syllab	Trial_Error	7	24.29
	FormCW	4	46.00
	ProDev	4	36.50
	TechTool	3	46.00
	combo 2+	58	39.45
	Total	76	
SE_Announ	Trial_Error	7	36.14
	FormCW	4	47.00
	ProDev	4	37.50
	TechTool	3	47.00

	combo 2+	58	37.83
	Total	76	
SE_Other	Trial_Error	7	37.00
	FormCW	4	37.00
	ProDev	4	37.00
	TechTool	3	37.00
	combo 2+	58	38.97
	Total	76	
S_RubCh	Trial_Error	7	30.86
	FormCW	4	48.50
	ProDev	4	39.00
	TechTool	3	32.67
	combo 2+	58	39.00
	Total	76	
S_RubH	Trial_Error	7	40.36
	FormCW	4	39.00
	ProDev	4	29.50
	TechTool	3	54.83
	combo 2+	58	38.02
	Total	76	
S_RubCom	Trial_Error	7	38.64
	FormCW	4	30.50
	ProDev	4	40.00
	TechTool	3	49.50
	combo 2+	58	38.36
	Total	76	
S_RubCC	Trial_Error	7	23.86
	FormCW	4	51.00
	ProDev	4	32.00
	TechTool	3	38.33
	combo 2+	58	39.86
	Total	76	
S_Rubric	Trial_Error	1	2.00
	FormCW	1	13.50
	ProDev	4	10.63
	TechTool	2	13.50
	combo 2+	15	12.73
	Total	23	

Kruskal-Wallis: Tools and Strategies Learned to Provide Feedback (1)

	T_email	T_asynch	T_synch	T_phon	T_VPPT	T_Video
Kruskal-Wallis H	2.010	2.766	.660	1.737	2.400	1.378
df	4	4	4	4	4	4
Asymp. Sig.	.734	.598	.956	.784	.663	.848

Kruskal-Wallis: Tools and Strategies Learned to Provide Feedback (2)

	T_AudF	T_ShDoc	T_Oth	TPref1	SE_Rubric	SE_Instr
Kruskal-Wallis H	2.505	4.156	2.553	2.252	9.857	2.399
df	4	4	4	4	4	4
Asymp. Sig.	.644	.385	.635	.690	.043	.663

Kruskal-Wallis: Tools and Strategies Learned to Provide Feedback (3)

	SE_Syllab	SE_Announ	SE_Other	S_RubCh	S_RubH
Kruskal-Wallis H	8.094	2.262	.957	2.534	4.397
df	4	4	4	4	4
Asymp. Sig.	.088	.688	.916	.638	.355

Kruskal-Wallis: Tools and Strategies Learned to Provide Feedback (4)

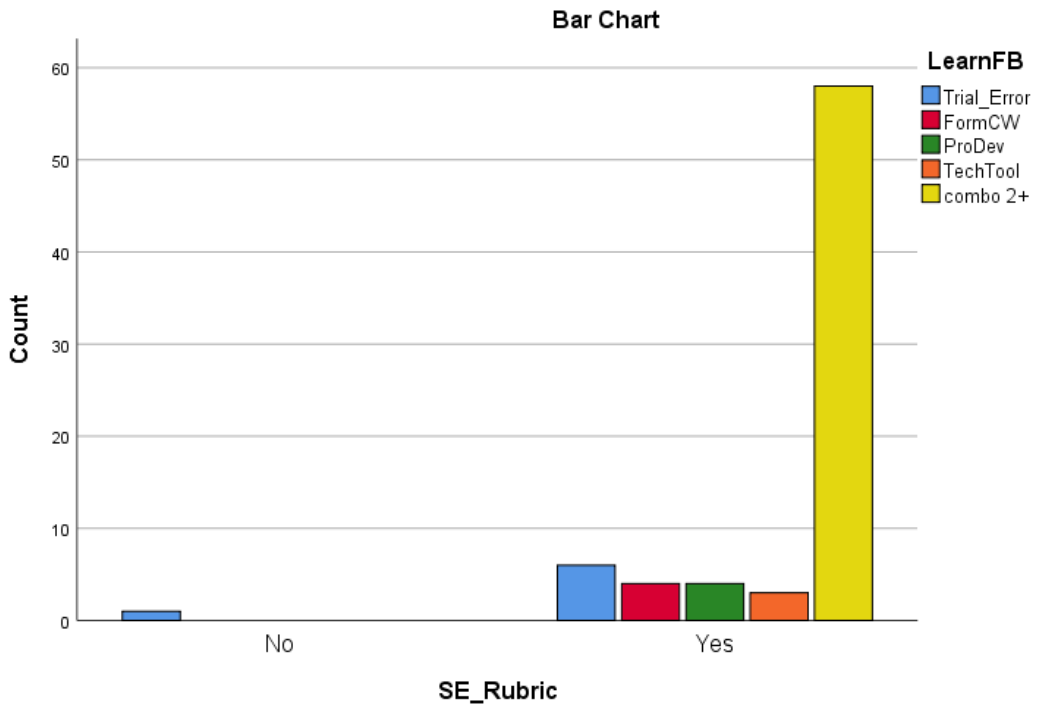
	S_RubCom	S_RubCC	S_Rubric
Kruskal-Wallis H	2.091	7.438	7.804
df	4	4	4
Asymp. Sig.	.719	.114	.099

Cross Tabulation: Expectations via Rubric and Strategies Learned to Provide Feedback

*Crosstabulation SE_Rubric * LearnFB*
Count

		LearnFB				
		Trial_Error	FormCW	ProDev	TechTool	combo 2+
SE_Rubric	No	1	0	0	0	0
	Yes	6	4	4	3	58
Total		7	4	4	3	58

*Expecations via Rubric * Strategies Learned to Provide Feedback*



G.5 Kruskal-Wallis: Combined Composite Variables

Kruskal-Wallis Test: Combined Variables of Feedback and Years Teaching Nursing

Ranking of Combined Variables of Feedback according to Years of Teaching Nursing

	YearsTeachNUR	N	Mean Rank
FeedUp	0-1	4	45.63
	1-3	11	33.50
	3-6	15	34.50
	6-10	16	37.97
	10+	29	40.48
	Total	75	
FeedBack	0-1	4	34.38
	1-3	11	29.55
	3-6	15	40.00
	6-10	16	30.28
	10+	29	44.93
	Total	75	
FeedForward	0-1	4	51.25
	1-3	11	28.00
	3-6	15	44.70
	6-10	16	32.56
	10+	29	39.50
	Total	75	
Task	0-1	4	39.00
	1-3	11	38.95
	3-6	15	36.70
	6-10	16	34.69
	10+	29	40.00
	Total	75	
Process	0-1	4	45.38
	1-3	11	27.36
	3-6	15	40.10
	6-10	16	32.84
	10+	29	42.78
	Total	75	
SelfRegulation	0-1	4	37.88
	1-3	11	28.23
	3-6	15	36.00
	6-10	16	35.97
	10+	29	43.88
	Total	75	
FormatCharacteristics	0-1	4	21.13

1-3	11	27.64
3-6	15	46.07
6-10	16	37.09
10+	29	40.59
Total	75	

*Kruskal-Wallis Test: Combined Variables of Feedback * Years Teaching Nursing (1)*

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	2.246	8.329	6.881	.870	5.826
df	4	4	4	4	4
Asymp. Sig.	.691	.080	.142	.929	.213

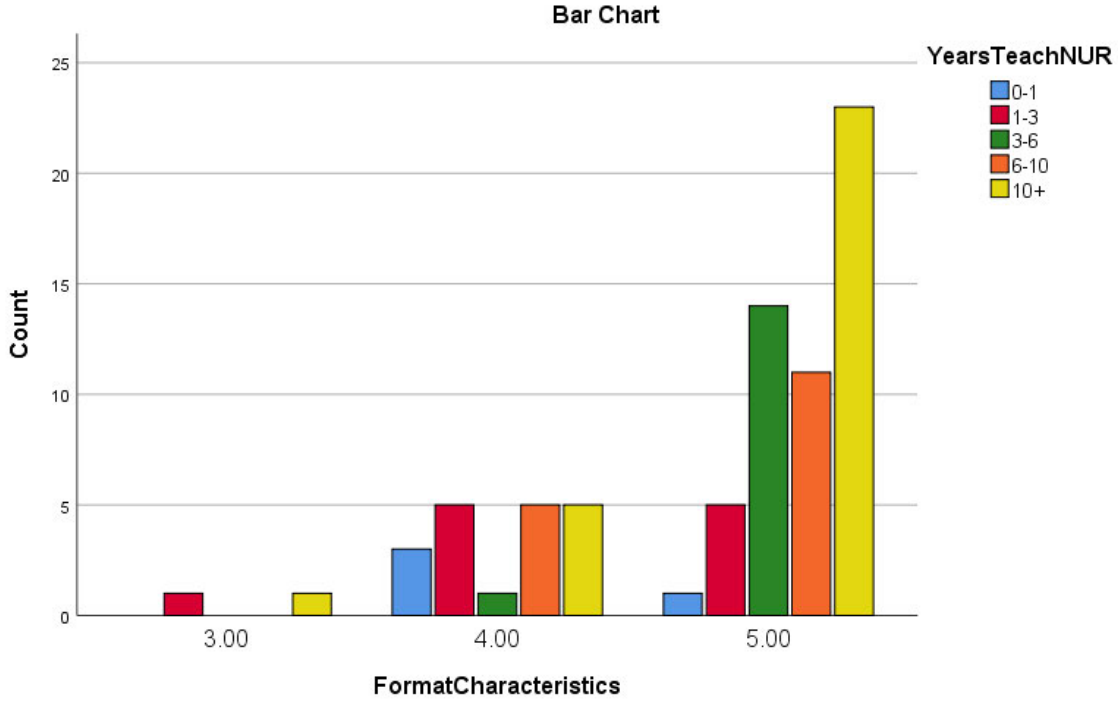
*Kruskal-Wallis Test: Combined Variables of Feedback * Years Teaching Nursing (2)*

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	5.245	12.081
df	4	4
Asymp. Sig.	.263	.017

*Crosstabulation of FormatCharacteristics * YearsTeachNUR*
Count

		YearsTeachNUR					Total
		0-1	1-3	3-6	6-10	10+	
FormatCharacteristics	3.00	0	1	0	0	1	2
	4.00	3	5	1	5	5	19
	5.00	1	5	14	11	23	54
Total		4	11	15	16	29	75

*FormatCharacteristics * YearsTeachNUR*



Kruskal-Wallis Test: Combined Variables of Feedback and Years Teaching Online

Ranking of Combined Variables of Feedback according to Years Teaching Online

	YrsTchOL	N	Mean Rank
FeedUp	0-1	7	31.64
	1-3	18	38.72
	3-6	19	38.71
	6-10	16	34.75
	10+	15	42.67
	Total	75	
FeedBack	0-1	7	40.36
	1-3	18	34.89
	3-6	19	35.37
	6-10	16	41.47
	10+	15	40.27
	Total	75	
FeedForward	0-1	7	34.93
	1-3	18	39.03
	3-6	19	43.79
	6-10	16	26.34
	10+	15	43.30
	Total	75	
Task	0-1	7	36.57
	1-3	18	39.92
	3-6	19	35.16
	6-10	16	36.81
	10+	15	41.23
	Total	75	
Process	0-1	7	36.14
	1-3	18	38.39
	3-6	19	39.58
	6-10	16	30.69
	10+	15	44.20
	Total	75	
SelfRegulation	0-1	7	38.93
	1-3	18	35.67
	3-6	19	35.95
	6-10	16	40.00
	10+	15	40.83
	Total	75	
FormatCharacteristics	0-1	7	27.64
	1-3	18	39.81
	3-6	19	40.26

6-10	16	39.38
10+	15	36.33
Total	75	

Kruskal-Wallis Test: Combined Variables of Feedback and Years Teaching Online (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	2.190	1.576	7.574	1.086	3.356
df	4	4	4	4	4
Asymp. Sig.	.701	.813	.109	.897	.500

Kruskal-Wallis Test: Combined Variables of Feedback and Years Teaching Online (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	.887	3.375
df	4	4
Asymp. Sig.	.926	.497

Kruskal-Wallis Test: Combined Variables of Feedback and Highest Degree

Ranking of Combined Variables of Feedback according to Highest Degree

	HDeg	N	Mean Rank
FeedUp	MSN	30	29.88
	PhD	19	34.79
	DNP	16	40.84
	EdD	4	51.00
	Total	69	
FeedBack	MSN	30	32.07
	PhD	19	37.18
	DNP	16	34.69
	EdD	4	47.88
	Total	69	
FeedForward	MSN	30	30.72
	PhD	19	34.92
	DNP	16	41.25
	EdD	4	42.50
	Total	69	
Task	MSN	30	33.40
	PhD	19	36.76
	DNP	16	34.72
	EdD	4	39.75
	Total	69	
Process	MSN	30	30.93
	PhD	19	33.97
	DNP	16	39.50
	EdD	4	52.38
	Total	69	
SelfRegulation	MSN	30	32.78
	PhD	19	40.42
	DNP	16	32.63
	EdD	4	35.38
	Total	69	
FormatCharacteristics	MSN	30	31.60
	PhD	19	35.66
	DNP	16	38.09
	EdD	4	45.00
	Total	69	

Kruskal-Wallis: Combined Variables of Feedback according to Highest Degree (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	7.515	3.058	3.752	.703	5.366
df	3	3	3	3	3
Asymp. Sig.	.057	.383	.290	.873	.147

Kruskal-Wallis: Combined Variables of Feedback according to Highest Degree (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	2.261	3.615
df	3	3
Asymp. Sig.	.520	.306

Kruskal-Wallis Test Combined Variables of Feedback and Formal Education on Teaching

Ranking of Combined Variables of Feedback according to Formal Education of Teaching Strategies

	EdTch	N	Mean Rank
FeedUp	no	19	35.16
	yes	56	38.96
	Total	75	
FeedBack	no	19	33.74
	yes	56	39.45
	Total	75	
FeedForward	no	19	35.79
	yes	56	38.75
	Total	75	
Task	no	19	39.84
	yes	56	37.38
	Total	75	
Process	no	19	34.39
	yes	56	39.22
	Total	75	
SelfRegulation	no	19	33.55
	yes	56	39.51
	Total	75	
FormatCharacteristics	no	19	34.50
	yes	56	39.19
	Total	75	

Kruskal-Wallis: Combined Variables of Feedback and Formal Education of Teaching Strategies (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	.564	1.187	.284	.227	.737
df	1	1	1	1	1
Asymp. Sig.	.452	.276	.594	.634	.391

Kruskal-Wallis: Combined Variables of Feedback and Formal Education of Teaching Strategies (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	1.211	1.075
df	1	1
Asymp. Sig.	.271	.300

Kruskal-Wallis Test: Combined Variables of Feedback and CNE

Ranking of Combined Variables of Feedback and CNE

	CNE	N	Mean Rank
FeedUp	no	57	36.53
	yes	18	42.67
	Total	75	
FeedBack	no	57	36.86
	yes	18	41.61
	Total	75	
FeedForward	no	57	37.11
	yes	18	40.81
	Total	75	
Task	no	57	37.70
	yes	18	38.94
	Total	75	
Process	no	57	36.53
	yes	18	42.67
	Total	75	
SelfRegulation	no	57	36.85
	yes	18	41.64
	Total	75	
FormatCharacteristics	no	57	36.15
	yes	18	43.86
	Total	75	

Kruskal-Wallis: Combined Variables of Feedback and CNE (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	1.416	.793	.426	.056	1.149
df	1	1	1	1	1
Asymp. Sig.	.234	.373	.514	.814	.284

Kruskal-Wallis: Combined Variables of Feedback and CNE (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	.755	2.805
df	1	1
Asymp. Sig.	.385	.094

Kruskal-Wallis Test: Combined Variables of Feedback and Employment Status

Ranking of Combined Variables of Feedback and Employment Status

	Employ	N	Mean Rank
FeedUp	Not employed at a nursing program at this time	4	44.63
	Part-time	25	35.84
	Full-time	45	37.79
	Total	74	
FeedBack	Not employed at a nursing program at this time	4	34.25
	Part-time	25	38.88
	Full-time	45	37.02
	Total	74	
FeedForward	Not employed at a nursing program at this time	4	56.50
	Part-time	25	34.40
	Full-time	45	37.53
	Total	74	
Task	Not employed at a nursing program at this time	4	38.75
	Part-time	25	45.42
	Full-time	45	32.99
	Total	74	
Process	Not employed at a nursing program at this time	4	50.25
	Part-time	25	34.82
	Full-time	45	37.86
	Total	74	
SelfRegulation	Not employed at a nursing program at this time	4	37.75
	Part-time	25	39.46
	Full-time	45	36.39
	Total	74	
FormatCharacteristics	Not employed at a nursing program at this time	4	29.50
	Part-time	25	35.58

Full-time	45	39.28
Total	74	

Kruskal-Wallis: Combined Variables of Feedback and Employment Status (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	.787	.264	3.962	6.697	1.915
df	2	2	2	2	2
Asymp. Sig.	.675	.876	.138	.035	.384

Kruskal-Wallis: Combined Variables of Feedback and Employment Status (2)

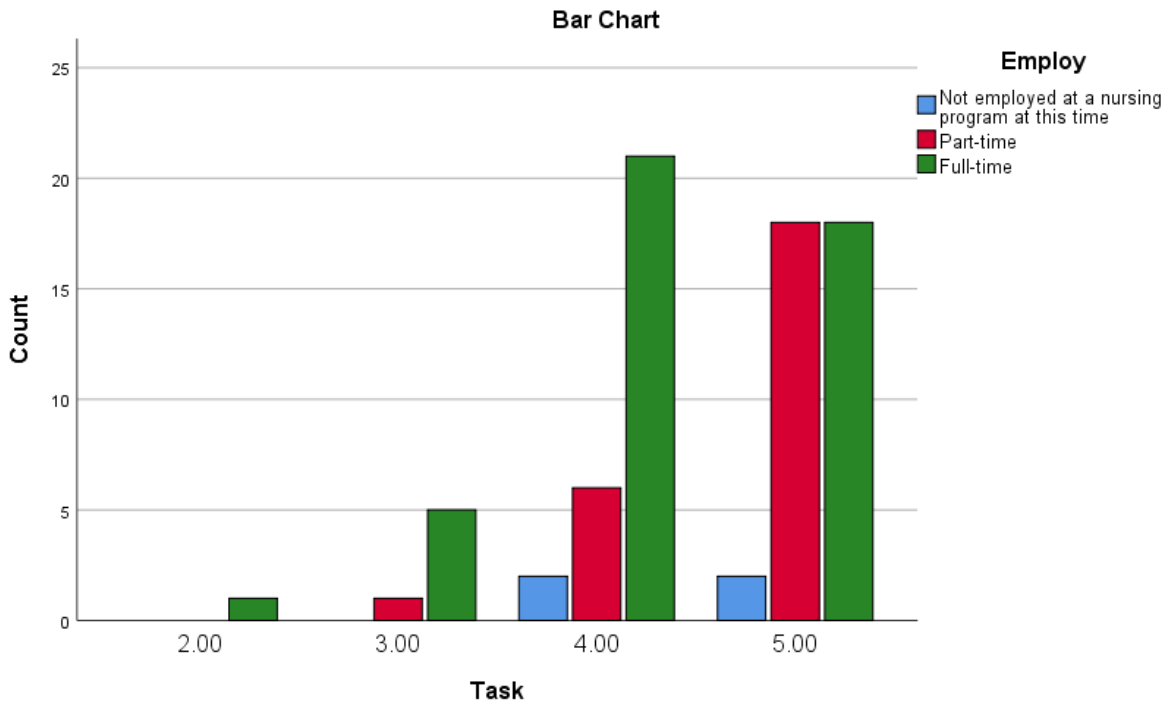
	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	.375	1.776
df	2	2
Asymp. Sig.	.829	.412

*Cross Tabulation Task * Employ*

Count

		Employ			
		Not employed at a nursing program at this time	Part-time	Full-time	Total
Task	2.00	0	0	1	1
	3.00	0	1	5	6
	4.00	2	6	21	29
	5.00	2	18	18	38
Total		4	25	45	74

*Task * Employ*


Bar Chart
Employ
Not employed at a nursing program at this time
Part-time
Full-time
Count
25
20
15
10
5
0
2.00
3.00
4.00
5.00
Task

Kruskal-Wallis Test: Combined Variables of Feedback and Employed at More than One School of Nursing

Ranking of Combined Variables of Feedback and Employed at More than One School of Nursing

	Plus	N	Mean Rank
FeedUp	Not employed at a nursing program	1	54.50
	no	56	36.49
	yes	18	41.78
	Total	75	
FeedBack	Not employed at a nursing program	1	26.00
	no	56	38.25
	yes	18	37.89
	Total	75	
FeedForward	Not employed at a nursing program	1	66.00
	no	56	37.13
	yes	18	39.17
	Total	75	
Task	Not employed at a nursing program	1	22.00
	no	56	37.69
	yes	18	39.86
	Total	75	
Process	Not employed at a nursing program	1	46.50
	no	56	37.58
	yes	18	38.83
	Total	75	
SelfRegulation	Not employed at a nursing program	1	30.50
	no	56	39.56
	yes	18	33.56
	Total	75	
FormatCharacteristics	Not employed at a nursing program	1	12.00
	no	56	39.65
	yes	18	34.31
	Total	75	

Kruskal-Wallis: Combined Variables of Feedback and Employed at More than One School of Nursing (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	1.803	.379	1.944	.851	.211
df	2	2	2	2	2
Asymp. Sig.	.406	.827	.378	.653	.900

Kruskal-Wallis: Combined Variables of Feedback and Employed at More than One School of Nursing (1)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	1.320	3.705
df	2	2
Asymp. Sig.	.517	.157

Kruskal-Wallis Test: Combined Variables of Feedback and Employed at Another, Non-Teaching Job

Ranking of Combined Variables of Feedback according to Employed at Another Non-Teaching Job

	Oth Job	N	Mean Rank
FeedUp	no	32	38.47
	Yes, non-nursing	4	36.75
	Yes, another nursing pro	39	37.74
	Total	75	
FeedBack	no	32	39.38
	Yes, non-nursing	4	51.13
	Yes, another nursing pro	39	35.53
	Total	75	
FeedForward	no	32	36.66
	Yes, non-nursing	4	40.00
	Yes, another nursing pro	39	38.90
	Total	75	
Task	no	32	40.03
	Yes, non-nursing	4	39.00
	Yes, another nursing pro	39	36.23
	Total	75	
Process	no	32	38.84
	Yes, non-nursing	4	35.88
	Yes, another nursing pro	39	37.53
	Total	75	
SelfRegulation	no	32	40.77
	Yes, non-nursing	4	25.75
	Yes, another nursing pro	39	36.99
	Total	75	
FormatCharacteristics	no	32	41.33
	Yes, non-nursing	4	39.38
	Yes, another nursing pro	39	35.13
	Total	75	

Kruskal-Wallis: Combined Variables of Feedback and Employed at Another Non-Teaching Job (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	.044	2.536	.240	.678	.111
Df	2	2	2	2	2
Asymp. Sig.	.978	.281	.887	.712	.946

Kruskal-Wallis: Combined Variables of Feedback and Employed at Another Non-Teaching Job (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	2.130	2.357
df	2	2
Asymp. Sig.	.345	.308

Kruskal-Wallis Test: Combined Variables of Feedback and Design of Course

Ranking of Combined Variables of Feedback according to Design of Course

	Design	N	Mean Rank
FeedUp	Designed by University	45	34.64
	Designed by Faculty	29	41.93
	Total	74	
FeedBack	Designed by University	45	40.49
	Designed by Faculty	29	32.86
	Total	74	
FeedForward	Designed by University	45	37.43
	Designed by Faculty	29	37.60
	Total	74	
Task	Designed by University	45	38.23
	Designed by Faculty	29	36.36
	Total	74	
Process	Designed by University	45	38.06
	Designed by Faculty	29	36.64
	Total	74	
SelfRegulation	Designed by University	45	38.30
	Designed by Faculty	29	36.26
	Total	74	
FormatCharacteristics	Designed by University	45	34.97
	Designed by Faculty	29	41.43
	Total	74	

Kruskal-Wallis Test: Combined Variables of Feedback and Design of Course (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	2.630	2.704	.001	.166	.081
df	1	1	1	1	1
Asymp. Sig.	.105	.100	.972	.684	.776

Kruskal-Wallis Test: Combined Variables of Feedback and Design of Course (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	.181	2.588
df	1	1
Asymp. Sig.	.670	.108

Kruskal-Wallis Test: Combined Variables of Feedback and Strategies Learned to Provide Feedback

Ranking of Combined Variables of Feedback according to Strategies Learned to Provide Feedback

	LearnFB	N	Mean Rank
FeedUp	Trial_Error	7	26.57
	FormCW	4	27.88
	ProDev	3	37.33
	TechTool	3	30.83
	combo 2+	58	40.48
	Total	75	
FeedBack	Trial_Error	7	30.79
	FormCW	4	15.75
	ProDev	3	26.00
	TechTool	3	37.17
	combo 2+	58	41.07
	Total	75	
FeedForward	Trial_Error	7	31.86
	FormCW	4	36.88
	ProDev	3	31.33
	TechTool	3	43.33
	combo 2+	58	38.89
	Total	75	
Task	Trial_Error	7	31.71
	FormCW	4	26.13
	ProDev	3	27.50
	TechTool	3	44.67
	combo 2+	58	39.78
	Total	75	
Process	Trial_Error	7	30.07
	FormCW	4	28.38
	ProDev	3	28.67
	TechTool	3	40.17
	combo 2+	58	39.99
	Total	75	
SelfRegulation	Trial_Error	7	34.71
	FormCW	4	25.75
	ProDev	3	43.83
	TechTool	3	50.17
	combo 2+	58	38.31
	Total	75	
FormatCharacteristics	Trial_Error	7	22.43
	FormCW	4	9.38

ProDev	3	36.33
TechTool	3	32.83
combo 2+	58	42.21
Total	75	

Kruskal-Wallis: Combined Variables of Feedback according to Strategies Learned to Provide Feedback (1)

	FeedUp	FeedBack	FeedForward	Task	Process
Kruskal-Wallis H	5.045	8.533	1.218	3.909	2.932
df	4	4	4	4	4
Asymp. Sig.	.283	.074	.875	.418	.569

Kruskal-Wallis: Combined Variables of Feedback according to Strategies Learned to Provide Feedback (2)

	SelfRegulation	FormatCharacteristics
Kruskal-Wallis H	2.955	20.997
df	4	4
Asymp. Sig.	.565	.000

*Crosstabulation: FormatCharacteristics * LearnFB (1)*

Count

		LearnFB			
		Trial_Error	FormCW	ProDev	TechTool
FormatCharacteristics	3.00	0	1	0	1
	4.00	5	3	1	0
	5.00	2	0	2	2
Total		7	4	3	3

*Crosstabulation: FormatCharacteristics * LearnFB (2)*

Count

		LearnFB	
		combo 2+	Total
FormatCharacteristics	3.00	0	2
	4.00	10	19
	5.00	48	54
Total		58	75

*Crosstabulation: FormatCharacteristics * LearnFB*