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Legitimization of Affective Domain Learning: A Transformative Mixed-Methods Analysis of Learning Outcomes Assessment Practice

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Doctor of Education in Organizational Leadership

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Legitimization of Affective Domain Learning:

A Transformative Mixed-Methods Analysis of Learning Outcomes Assessment Practice

A dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Education in Organizational Leadership

by

Lan Misty Song

March 2023

Dedication

I could never express gratitude to the extent that it would please me, but I shall endeavor to let anyone who sees this manuscript understand that there are people in my life, without whom this work would be incomplete. First and foremost are my parents. While Baba left this plane of existence too soon to celebrate with me in person; his love for learning was imprinted in me from an early age, perhaps even at conception. His wisdom, calm demeanor, and steadfast encouragement kept me going when I sometimes felt hopeless to continue. I know he is smiling down at me and will likely be telling everyone in the spirit world, “that’s my little girl” when I walk across the stage to be hooded at the commencement ceremony. A vision of that kept me going after his untimely passing. Mama has also instilled an inner strength that comes from doing men’s work in a man’s world, and she gifted me a work ethic that settles for no less than my absolute best. Her perseverance is still evident in all that she does, and it is my hope to continue persisting as my endearing and unending tribute to her. I was also blessed to have an older brother, a rarity for my generation from Mainland China. “Big brother” has always been there for me and the benefit of his unending support, spiritually, mentally, and financially is immeasurable. To my husband, the research-design junkie, thanks for the coffee-conversations each morning and for giving me truthful feedback even when I wasn’t sure that’s what I wanted to hear. The knowledge I gleaned from our discussions absolutely comes through this document with each research-stage transition. Finally, heartfelt gratitude to my editor, Mr. Demian Pedone, his clarification of my ideas and structure is a major reason this document was accepted without revision; you have truly earned the label, “the best editor ever.”

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Abstract

Ever since the development of Bloom's Taxonomy, educational institutions have primarily focused on the cognitive learning domain, concerned with the transmission and acquisition of knowledge and skills. Recently, educators and researchers have become more interested in the affective domain—concerned with attitudes, emotions, and values—and how it affects student learning outcomes. While it is important to address affective-domain learning in any educational setting, one discipline giving it particular attention is nursing; their accrediting bodies are increasingly incorporating affective learning outcomes (ALOs) in their criteria. Thus, examining how nursing programs assess for ALOs may give insight in how to successfully integrate affective-domain learning into curricula. This transformative mixed-methods study examined current assessment practices to determine how effectively and extensively they are actually employed. Learning-outcome statements issued by 227 undergraduate nursing programs accredited by the Southern Association of Colleges and Schools and the Commission on Collegiate Nursing Education were evaluated for references to ALOs, in order to determine how widespread affective assessment actually is, and at what level it is implemented. A novel taxonomy was employed to categorize each school, in hopes of finding which factors can predict which institutions are most likely to implement affective learning outcomes at an exemplary level. Analyses did not reveal any significant relationships for programmatic implementation efforts with most NCES institutional characteristics nor Carnegie classifications. There was, however, a statistically significant $F(3, 202) = 3.28$, $p = 0.02$, $\eta^2 = 0.05$ relationship between retention rate and exemplary ALO assessment practices, marking the first empirical evidence linking affective-domain learning and student retention.

Keywords: affective learning domain, affective learning outcomes (ALOs), Krathwohl's affective taxonomy, student learning outcomes (SLOs), SLO assessment, assessment practices, nursing programs, accreditation, student retention, Song's taxonomic levels, legitimacy, legitimization

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Chapter 1: Introduction

Bloom et al. (1956) identified three learning domains—cognitive, affective, and psychomotor—each of which requires a different approach to understanding and assessing individual learning goals. The cognitive learning domain is concerned with how humans recognize and acquire knowledge and develop "intellectual abilities and skills;" the psychomotor domain assesses students' physical competencies; and the affective one refers to the growth and maturity of feelings, attitudes, and values (p. 7). In the years since its inception, the cognitive domain from Bloom's taxonomy has become the foundation for structuring and assessing learning outcomes in colleges and universities (Nix & Song, 2020), but recently, there have been increasing calls for including the affective domain (Hansen, 2019; Kilgo et al., 2015; Kovbasyuk & Blessinger, 2013; Torrisi-Steele, 2022). This is, in part, due to a growing recognition that constructs such as democracy and civic-mindedness depend on peoples' mindsets and dispositions (Hundley et al., 2019), and cannot be accurately measured through simple assessments of rote learning.

One field where this change is particularly apparent is in health-sciences programs, particularly those dedicated to nursing. As some healthcare educators stressed, the affective competencies, such as teamwork, leadership, role-playing, empathy, problem-solving, advocacy, interprofessional collaboration, cultural sensitivity, communications, self-awareness, and professionalism, are critical for healthcare profession (Ratka, 2018; Usman et al., 2021). These healthcare programs are rigorously vetted and require accreditation by both a regular accrediting organization and a specialized professional one. Increasingly, these specialized accrediting bodies are calling for incorporating affective-domain learning outcomes into academic programs (Fukada, 2018). The National League for Nursing (NLN), a leading organization for nursing-

education programs, updated their core values to include “caring, diversity and inclusion, integrity, and excellence” (National League for Nursing, n.d.); these values help inform nursing accreditors’ accreditation practices. Another accreditor, the Commission on Collegiate Nursing Education (CCNE), identified nursing’s professional core values as altruism, autonomy, human dignity, integrity, and social justice; this embrace of affective-domain constructs directly influences baccalaureate programmatic curriculum-building (CCNE, 2008). Yet another major agency, the Accreditation Commission for Education in Nursing (ACEN), also emphasized that the philosophies of nursing programs should be congruent with the core values of the profession’s governing organizations—which, again, are increasingly incorporating affective learning outcomes (ACEN, 2017).

The Long March Toward Affective-Domain Assessments

As a former faculty member and student success professional who worked with both two-year and four-year institutions, I believed that students could not only obtain knowledge and develop skills, but I also wanted to catalyze continuing interest and sustain certain mindsets for continuous learning. I taught or trained students with learning outcomes based on the cognitive domain. Although the evaluation results indicated that students had achieved the learning outcomes, such as earning “A”s, they expressed confusion, such as “why did I need to study this” or “how could I apply the content;” some students vented frustrations, “I don’t see how this knowledge could help me” (Personal communications, 2015). Students’ contrary mindsets indicated issues: were students truly attaining the knowledge or skills, and would they be willing to embrace those? How is a student’s academic attainment truly assessed?

To assess an individual’s learning, Bloom et al. (1956) outlined a taxonomy, incorporating six hierarchical levels used to categorize the learner’s observable knowledge,

skills, and abilities. At the base of this pyramid, learners could remember information, moving through progressively more interactive levels of mastery, from understanding, to applying, then analyzing, evaluating, and finally creating. Since its inception, this system has been commonly used to structure educational objectives in ways that are assessed through the easily quantified cognitive-learning domain (Tittle et al., 1989), which ultimately led to instructional practices heavily reliant upon standardized tests (Pierre & Oughton, 2007). This growing focus on cognitive outcomes culminated in 2000, when the National Center for Higher Education Management Systems (NCHEMS, 2000) published the *Competency Standards Project: Another Approach to Accreditation Review*, which recommended that organizations implement practices assessing cognitive-learning outcomes to demonstrate compliance with regional accreditor agency standards and principles. As accrediting agencies adopted those assessments, educational institutions have been laser-focused on developing, implementing, and assessing students' cognitive learning outcomes to satisfy those accreditors' requirements (Song et al., 2021). The question remained, though: could these traditional examinations, directly focused on cognitive-domain objectives, truly reflect the entire scope of a student's attainment?

For decades, researchers have recognized the limitations of relying on cognitive-only learning objectives to define an individual's development. For example, Torrisi-Steele (2022) considered that the cognitive domain is associated with the acquisition of knowledge; however, student engagement, which is strongly linked with academic achievement, is an affective-domain element essential to successful cognitive attainment. Bolin et al. (2005) asserted that pedagogy—and by extension, andragogy—concerned solely with the cognitive domain was incapable of helping students discover the value of learning for its own sake. Similarly, Spady (1994) noted that assessments based in the cognitive learning domain might not accurately reflect students'

attainment, which inevitably involves values and other affective components. In fact, studies have shown that neglecting affective components may stunt students' ability to retain what they learn, making it more difficult to meet cognitive objectives (Bolin et al., 2005; Thompson & Mintzes, 2002). Hence, educators should rebalance the cognitive- and affective-learning domains to better serve their students.

The affective learning domain, according to Krathwohl et al. (1964), refers to a collection of people's interests, feelings, attitudes, emotions, values, and the development of appreciation and adequate dispositional adjustment. To assess students' attainment in the affective domain, they established a 5-level taxonomy, known as Krathwohl's Affective Taxonomy, describing an individual's process of internalizing learning objectives as five levels: receiving (as the lowest level), responding, valuing, organizing, and characterizing (as the highest level; Krathwohl et al., 1964).

It is critical to incorporate affective learning into teaching and learning practices since cognitive, psychomotor, and affective domains constantly interact for there are no pure cognitions, affects, or behaviors; any one domain is virtually inseparable from the others insofar as instruction and learning processes are concerned. Liff (2003) noted that social and emotional competencies contribute to an individual's behaviors and learning, which can ultimately facilitate or inhibit academic success. Further work by Johns and Moyer (2018) confirmed that attitudes and beliefs are essential for supporting healthy behaviors, and thus we may consider teaching to the affective domain as one of the best practices for addressing barriers to knowledge and skill development. Therefore, reinforcing affective learning could positively impact student cognitive attainment.

Moreover, some affective components are crucial insofar as determining an individual's success and personal well-being. As Gaffney and Dannels (2015) perceived, affective learning could lead students "to recognize, be aware of, respond to, value, and enact with the world around them" (p. 501). Moreover, Makransky and Petersen (2021) defined several affective constructs, including situational interest, intrinsic motivation, self-efficacy, and self-regulation– that could promote factual, conceptual, and procedural knowledge acquisition. Additionally, some critical affective constructs, such as empathy (Goleman, 2004), positive emotions (Fredrickson, 2000), spirituality (Fry, 2003), resilience (Yeager & Dweck, 2012), grit (Duckworth et al., 2007), intrinsic motivation (Kozina & Mlekuž, 2016), and mindfulness (Noble et al., 2019), contribute to an individual's success and personal wellbeing.

At the institutional level, students' perceptions of affective learning could help educational institutions improve the effectiveness of their pedagogical practices due to the complex relationships between classroom instructions and student learning (Vu et al., 2021). Affects can help educators gauge students' cognitive attainment, which allows them to adjust their instructional practices to more effectively help learners reach academic goals (Noland & Richards, 2014). Gaffney and Dannels (2015) also called for instructional communication research focusing on elevating affective learning to equal footing with cognitive learning as an educational outcome helps educators make a lasting difference in students. A study by Alsharari and Alshurideh (2020) indicated that promoting students' creativity, emotional intelligence, and autonomy could enhance engagement, leading to improved student retention. Bolin et al. (2005) suggested that engaging the affective learning domain could facilitate the creation and maintenance of emotional attachments and open communication channels between instructors and students.

In addition, Pierre and Oughton (2007) suggested that affective educational outcomes should be integrated into curricula because elements such as willingness, enjoyment, and preferences play important roles in the workplace. For some professions, such as nursing and pharmacy, the importance of affective learning extends from the classroom into postgraduate professional lives, largely due to the unique ethical and moral aspects inherent to these fields. Fukada (2018) argued that training competent nurses required more than simply imparting knowledge and techniques; nursing programs should also consider affective-domain elements such as attitudes, and values, as these influence the ability to exercise clinical judgment and engage in self-reflection. Muzyk et al. (2017) held that incorporating the affective learning domain in pharmacy education is extremely important, because it helps pharmacy schools identify and address students' biases, combating the stigma surrounding certain medications or conditions (e.g., the negative attitudes many have toward mental illness). This often involves overtly incorporating the affective domain, as students develop a framework for contextually appropriate responses during emotional interactions with pharmacy patrons. Edwards and I'Anson (2020) suggested using Krathwohl's affective taxonomy to help pharmacy practitioners reformulate practice-related attitudes and values in order to commit to practice change in the pharmacy profession.

With the increasing calls to incorporate affective-domain learning outcomes into curriculum development, some standards organizations and program-level accreditors have included affective components in their accreditation requirements. For example, a report by the Center for the Advancement of Pharmacy Education advocated making a commitment to developing and measuring pharmacy programs' learning outcomes in the affective domain, expressly suggesting that an indispensable part of those programs should be the inclusion of not

only the skills, but also the values, attitudes, and attributes unique to pharmacists' roles (Medina et al., 2013).

Nursing programs, in particular, have stringent requirements regarding elements of affective learning outcomes, described in the National League for Nursing (NLN) and Commission for Nursing Education Accreditation Handbook: Policies and Procedures (CNEA, 2019). The CNEA includes constructs such as caring, integrity, and civility as core values guiding nursing educational programmatic principles and practices; these core values are incorporated into its criteria for recognizing *Centers of Excellence* (COE), an award given to nursing programs that embody the continued pursuit of excellence for nursing schools and healthcare organizations. The National Council Licensing Exam for Registered Nurses (NCLEX-RN) examination, funded by the National Council of State Boards of Nursing (NCSBN), includes items examining whether nurse candidates were able to practice "nursing care that promotes and supports the emotional, mental and social wellbeing" of clients (NCSBN, 2019, p. 21). The inclusion of affective development in nursing programs is intended to enhance holistic critical thinking, empathetic caring, and creativity in students, thus better preparing them for the psychosocial integrity portion of the NCLEX-RN (Romanowski et al., 2021).

Even though educational assessment practices for healthcare have shifted focus to competence-based outcomes (Frank et al., 2010), it is challenging to measure and evaluate student attainment in the affective domain (McLeod, 1991; Montalvo, 1983; Pierre & Oughton, 2007; Tittle et al., 1989). Rogers et al. (2017) noted the difficulty of directly measuring learning outcomes for professional values, such as diversity, honesty, integrity, and reliability, and McLeod (1991) pointed out that the affective domain does not have a good ordering principle for affect, reducing its utility as an affective-learning evaluation framework. Miller (2010) claimed

that the existence of inclusion guidelines for the assessment in the affective learning domain is insufficient for educators to evaluate their performance or student achievement. Therefore, educational programs should be encouraged to actively address affective learning in order to better meet the requirements of their respective accrediting organizations.

Statement of the Problem

As Chapter 2 demonstrates, there are insufficient guidelines for incorporating affective-learning outcomes for the affective-learning domain into current general-education assessment practices. Educators have much experience evaluating progress toward cognitive-learning objectives, but affective-domain learning outcomes are difficult to structure and assess, and thus often remain unresolved (McLeod, 1991; Miller, 2010; Pierre & Oughton, 2007; Tittle et al., 1989).

However, many professional identities (such as NLN, CHEA, and CNEA) and practices (NCLEX-RN examination) require affective competencies (Zahl et al., 2019) to achieve an elite professional competency level in their positions (Medina et al., 2013). For these professions, the assessment of attitudes and values due to the unique professional-role demands should be incorporated into the curricula (Zahl et al., 2019).

The inclusion of affective development appears to positively impact nursing students' pass-rates for the psychosocial integrity portion of the National Council Licensing Exam for Registered Nurses (NCLEX-RN; Hermann, 2020; Romanowski et al., 2021). In addition, standards-organizations such as NLN included caring, integrity, and civility as their core values (CNEA, 2019). Programmatic demonstration of the core values is evaluated through its recognition of Centers of Excellence, an award that is designated to symbolize the pursuit and sustainability of excellence for nursing schools and other healthcare-profession organizations

(National League for Nursing, 2022). Therefore, exploring how nursing education programs are constructing, applying, and assessing programmatic affective-domain learning outcomes could provide all educators with helpful guidelines for implementing similar elements into student learning outcomes (SLOs) in general education.

Purpose of the Study

The purpose of this transformative mixed-methods study was to examine the current practices for implementing assessment of affective learning outcomes across undergraduate nursing programs accredited Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) which were also accredited at the programmatic level by the Commission on Collegiate Nursing Education (CCNE). Thus, it aimed to:

1. Describe the current state of implementation and assessment of the affective learning domain across nursing programs.
2. Create a taxonomy of implementing assessment practices for affective learning outcomes.
3. Predict the most likely institutional settings for implementing affective learning outcomes at an exemplary level.

Research Questions

This research was designed to answer the following questions:

RQ1. To what extent have undergraduate nursing programs accredited by SACSCOC and CCNE incorporated the affective learning domain into their learning and assessment practices?

RQ2. At which Krathwohl's affective taxonomic levels are affective domain learning outcomes most typically assessed in those programs?

RQ3. Which institutional characteristics are related to the predictivity of exemplary practices for incorporating affective learning domain outcomes into undergraduate nursing programs?

RQ4. What types of institutions have implemented affective learning outcomes at the highest taxonomic level and might therefore serve as exemplars?

Definition of Key Terms

Accreditation agency. Private educational organizations which establish criteria for educational evaluation and assess whether institutions and programs have met those criteria. These agencies provide advisory guidelines that assist educational institutions with maintaining or improving academic rigor.

Affect. Refers to "the mental counterpart of internal bodily representations associated with emotions, actions that involve some degree of motivation, intensity, and force, or even personality dispositions" (Barrett & Bliss-Moreau, 2009).

Affective attributes. Affective attributes refer to people's interests, feelings, attitudes, emotions, and values (Krathwohl et al., 1964). An example of an affective attribute is empathy, described by Riess (2017) as a "mutable yet vital human competency" (p. 74).

Affective learning outcomes (ALOs). Learning outcomes that are designed to describe an individual's attainment of learning associated with feelings, values, interests, attitudes, choices, emotions, and relationships.

NLN CHEA. The National League for Nursing Commission for Nursing Education Accreditation, an officially recognized federal accreditation agency of the U.S. Department of Education, provides accreditation services for nursing programs.

SACSCOC. The Southern Association of Colleges and Schools Commission on Colleges is an agency which maintains an "accreditation of degree-granting higher education institutions in the Southern states and serves 11 states and Latin America and certain other international sites approved by the SACSCOC Board of Trustees that award associate, baccalaureate, master's, or doctoral degrees" (SACSCOC, n.d.).

Student learning outcomes (SLOs). Statements that describe what students should know and be able to do when they have completed or participated in a course, program, or activity. SLOs must be demonstratable, observable, and measurable (Kennedy, 2006).

Summary

Since Bloom et al. (1956) introduced the three learning domains, the cognitive one has been widely used by educators to define an individual's learning (Bolin et al., 2005). Because of the emphasis on using Bloom's taxonomy, educators have made sufficient efforts to achieve cognitive objectives yet ignored affective objectives. This neglect of the affective learning domain is widespread (Torrisi-Steele, 2022), despite many professional identities and practices require affective competencies to achieve excellence and a higher professional competency level in their positions (Medina et al., 2013); however, there are insufficient guidelines for incorporating affective learning outcomes into general education learning outcome assessment practice.

Nursing, though, is one discipline that teaches—and assesses for—affective learning outcomes (Cazzell & Rodriguez, 2011; Fukada, 2018; Greeno et al., 2018; Noble et al., 2019; Ondrejka, 2014). This study sought to explore the tactics used by nursing education programs in applying and implementing assessment of affective learning outcomes, in hopes of providing all educators with the tools they need to successfully implement the same.

Chapter 2: Literature Review

The purpose of this study was to examine the current practices of implementing affective learning outcomes assessment of the undergraduate nursing programs accredited through SACSCOC and CCNE. This chapter includes 20 sections. The first section is learning domains and begins with the introduction of the three learning domains, with particular focus on the affective learning domain and the current status of integrating the affective learning domain into educational practices. This chapter also explores the need of incorporating affective learning domain learning outcomes into educational programs and professional workplaces and examines the application and implementation of affective learning domain in nursing educational programs and professions. Additionally, this chapter reviews the literature regarding the conceptual framework and describes how the transformative research paradigm provided a social justice umbrella under which the conceptual framework for this research was nested. Finally, all the selected literature provided information for the research to generate conclusions and supported the need for this study.

Literature Search Methods

This literature review examines the classic theories and concepts from the last century and includes peer-reviewed journal articles across the 20th and 21st century. Additional sources included the most updated policies/procedures from legislative organizations, and suggestions, requirements, and recommendations from active accreditation agencies. Most of the sources were published within the last six to eight years. Primary searches were through Brown Library at Abilene Christian University's distance learning portal. Other scholar databases include EBSCO, ERIC, JSTOR, ProQuest, SAGE, SpringerLink, ScienceDirect, and Taylor and Francis. Google Scholar provided an additional access for literature searches. All the information

collected met the purpose of the literature review, presenting the current knowledge about the nursing programs' educational practices regarding affective domain learning outcomes and indicating the need for conducting this study.

Literature Review

The following section collects relevant sources on the research topic and aims to prepare for obtaining knowledge in the research field as well as conducting the research.

Learning Domains

Bloom et al. (1956) categorized an individual's learning into three domains: cognitive, affective, and psychomotor. The cognitive domain refers to "the recall or recognition of knowledge and the development of intellectual abilities and skills" (p. 7) and is commonly used for curriculum development purposes by educators (Bloom et al., 1956). Cognitive learning objectives are satisfied when students obtain an appropriate level of knowledge or develop certain skills.

Primary learning objectives of education institutions had fallen almost exclusively into the cognitive domain. Even teachers and examiners also had taken the cognitive domain outcomes as a top priority (Krathwohl et al., 1964). Examples of using the cognitive learning domain include course-embedded assessment measures such as quizzes, exams, research papers, or artifacts, which often would be graded. These are mental-task activities and often fall into the cognitive learning domain (Bloom et al., 1956; Judith, 2020; Nasralla et al., 2021).

The affective domain describes an individual's changes in interests, attitudes, emotions, and values, and the development of appreciation and adjustment (Krathwohl et al., 1964). Affective objectives are satisfied when students have obtained an appropriate level of internalization or established value for the content (Krathwohl et al., 1964). The affective domain

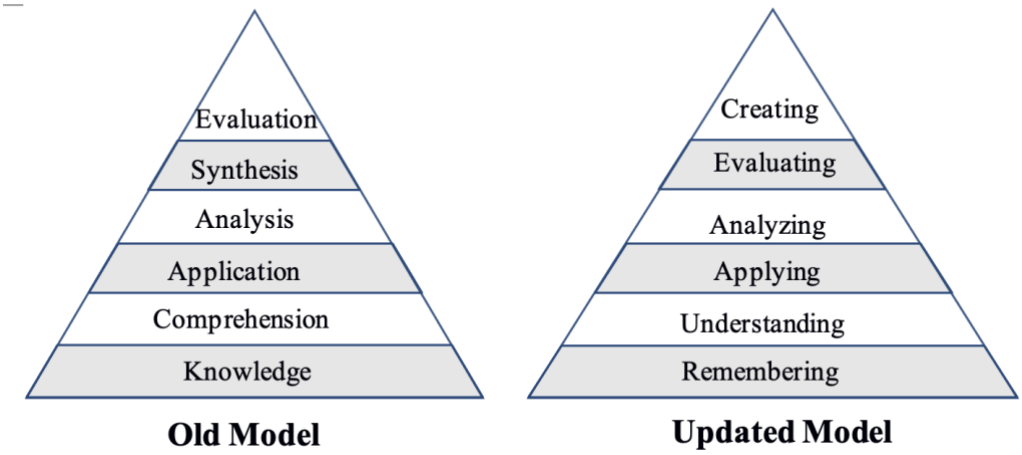
is important in education yet has been the most overlooked domain by educators because it might be more difficult to measure because the affective components, such as the change of attitudes, values, and emotions, cannot be arranged hierarchically (McLeod, 1991; Pierre & Oughton, 2007; Tittle et al., 1989). Simonson et al. (2015) recommended using self-reflections to determine a learner's emotions and long-term observations to measure if attitudes have been learned. Therefore, these assessment approaches might lack objectivity or be time- and personnel-resource-consuming.

The psychomotor domain emphasizes the use of muscular or motor skills, or some act that requires physical movement, coordination, and use of the motor skills: and the "development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution" (McNeil, 2011). Psychomotor objectives are satisfied when students obtain an appropriate level of physical skills. The psychomotor learning domain was not included as an integral component in this study but was described solely as a reference point comparing the three domains of learning.

Cognitive Learning Domain. Bloom et al. (1956) proposed taxonomies to represent levels of learning in each of the cognitive, psychomotor, and affective domains through hierarchical classification models. The taxonomy of the cognitive domain, familiarly known as Bloom's taxonomy, is often applied to assess students' attainment of intellectual skills and abilities. Bloom's taxonomy consists of six levels of cognition (see Figure 1).

Figure 1

Cognitive Learning Taxonomy: Original Model Vs. Updated Model



Note. Cognitive learning taxonomy: Original model Vs. updated model is shown and modified for the comparison of Bloom's taxonomy original model created by Bloom et al. (1956) and the updated model revisited by Anderson and Krathwohl (2001). From "Individualized, purposeful, and persistent: Successful transitions and retention of students at risk," by J. V. Nix, R. W. Lion, M. Michalak, and A. Christensen, 2015, *Journal of Student Affairs Research and Practice*, *52*(1), 109 https://doi.org/10.1080/19496591.2015.995576. Used and modified with permission.

The first level is *knowledge*. Knowledge refers to "those behaviors and test situations which emphasize the remembering, either by recognition or recall, of ideas, material, or phenomena" (Bloom et al., 1956, p. 62). The second level, *comprehension*, refers to a type of understanding or apprehension that is demonstrated through translation, interpretation, and extrapolation. *Application* is the third level, which involves processes of remembering the information, understanding the knowledge that has been learned, and applying methods, theory, principles, or abstractions in particular circumstances. The fourth level is *analysis.* Analysis refers to an advanced stage of learning, including the "breakdown of the material into its constituent parts and detection of the relationships of the parts and of the way they are

organized" (p. 144). The fifth level, synthesis, defines the ability to create new forms using learned information, put things or parts together, and form a new one as a whole. The sixth level is evaluation, which is the highest level. It refers to the ability to make judgments based on criteria or standards.

The original Bloom's taxonomy was revisited and updated by Anderson and Krathwohl (2001). They critiqued a major weakness of the original Bloom's taxonomy is that the first level of this model, knowledge, has a fundamental difference from the other five levels dealt with intellectual abilities and skills. The update recategorized the six levels: remembering, understanding, applying, analyzing, evaluating, and creating (see Figure 1). The major modifications were using gerunds rather than verbs, moving the original top-level classification to the second from the top, and reframing synthesis activities into a newly named top-level, creating.

Affective Learning Domain. The affective domain reflects the manner in which an individual copes with situations, as well as an individual's mindset shifts. According to Krathwohl et al. (1964), the affective learning domain describes learners' emotional processes of learning, reflecting on feelings, values, attitudes, interests, and behaviors. The affective learning domain is categorized into five hierarchical classifications, also known as Krathwohl's affective taxonomy (see Figure 2), illustrating educational objectives along a continuum of internalization from lowest to highest.

As seen in Figure 2, the first level, receiving, is the base level of affective learning, representing the learner's willingness to attend or be aware. Responding refers to the learner's appreciation or other emotional reactions. Valuing represents that the learner is accepting or valuing a particular phenomenon, behavior, or object. Organization is the level at which the

learner incorporates the phenomenon into their practices and schedules. Characterization, the highest level of affective learning, indicates that the learner acts consistently and judges others according to the newly internalized value system.

Figure 2

Krathwohl's Affective Taxonomy

Note. From "Assessing affective learning outcomes through a meaning-centered curriculum," by L. M. Song, J. V. Nix, and J. D. Levy, 2021, *AALHE 2021 Annual Conference,* p. 21. Used and adapted with permission.

Krathwohl et al. (1964) pointed out nearly all cognitive learning objectives contain affective components; for example, understanding the concept of psychological empowerment depends on students also being able to feel. Buscaglia (1978) perceived that learning requires feeling, responding, and caring. McLeod (1991) confirmed that to study human nature, not just discrete phenomena, "cognition must be viewed in concert with affect….and affective can direct and influence cognitive activities" (p. 2). These statements intimated an inumbrated relationship between affective and cognitive learning domains: reinforcing affective learning might positively impact an individual's cognitive attainment.

Despite the importance of the affective domain, insufficient efforts had been made to incorporate the affective learning domain into teaching and learning practices. Spady (1994) later opined that the cognitive learning domain might not best define those learning outcomes which were associated with affective factors, such as values, attitudes, and beliefs. There may be several explanations as to why the affective domain has been overlooked for years. First, educators and test developers hesitated or had no interests using affective domain for grading purposes due to respect for learners' attitudes, beliefs, values, interests, and character development due to the inadequacy of the appraisal techniques (Krathwohl et al., 1964; Tittle et al., 1989). Second, the complexity of structuring affective learning outcome statements (McLeod, 1991; Pierre & Oughton, 2007; Tittle et al., 1989) and subsequently assessing for affective learning is quite daunting because the affective components, such as values, emotions, feelings, and attitude, cannot be developed or arranged hierarchically. Finally, the lack of assessment guidelines created challenges for instructors to assess students' performance in the affective learning domain (Teng et al., 2019).

Researchers have recognized the importance of incorporating the affective learning domain in educational practices. For example, Kovbasyuk and Blessinger (2013) proposed meaning-centered education (MCE), as a human-centered approach that should facilitate a holistic integration of all learning domains granting students agency to reconstruct their own realities and connect their external objective realities with their internal worlds. The concept of MCE provides a framework through which instructors could incorporate affective learning into curricula. Giurgiu and Marica (2013) contended that including affective learning in curricula could promote active learning and student engagement through coping with "conflictual situations and ethical dilemmas" (p. 374). Einhellig et al. (2014) predicated that the emphasis on

the affective learning domain in educational practices could address the challenges of cultivating professional values of social justice. Affective learning is also related to professional development; Miller (2010) stressed the critical connections between the affective learning domain and fostering professional values, attitudes, and behaviors.

Affective Attributes. The term "affect" describes an internal feeling state, which refers to the evaluative aspect of attitudes (Cohen et al., 2008). Affective attributes can be defined as "emotions and feelings that are elicited by features of the target object, where those features are real, perceived, or imagined" (Kim & Perdue, 2013, p. 247).

The U.S. Human Resources and Skills Development identified some critical soft skills for education and training which were nested into the affective domain, such as self-awareness, leadership skills, team-building skills, acceptance of diversity, and flexibility. These soft skills can be viewed as affective attributes; as Pierre and Oughton (2007) perceived, they might help institutions improve productivity, employee satisfaction, and workplace environments. Student affects serve as evidence; so that being aware of students' affective attributes could direct educators to reshape their teaching and learning apart from cognitive-only learning domain (Noland & Richards, 2014) activities, as well as support institutions to improve the effectiveness of educational practices (Vu et al., 2021).

Some affective attributes may determine individuals' success and well-being. For example, empathy refers to an ability to treat people according to their affective reactions, which is considered an essential leadership skill that leads to successful goal completion through building and retaining talent and cross-cultural sensitivity within a team (Goleman, 2004). Fredrickson (2000) stressed that cultivating positive emotions "extends an individual's brain capacity by building personal resources for coping with life's adversity" (p. 18), thereby

producing an upward spiral that optimizes health and well-being. Moreover, growth mindsets enable creative and flexible thinking, as well as intensify resilience, so that students can be prepared to better cope with adversity resiliently (Fredrickson, 2000; Yeager & Dweck, 2012). Additionally, Duckworth et al. (2007) discovered that grit (a combination of passion and perseverance) might be an essential trait to high accomplishments as it enables learners consistently to maintain focus for long-term goals; therefore, it plays a predictive role in student success. Spirituality is a vital force that incorporates ethics and values, which could shape our mental world to fulfill our vocations and approach well-being; workforce spirituality provides an intrinsic motivation system, which benefits individuals with positive emotions and delivers improved productivity and commitment to organizations (Fry, 2003). Mindfulness is another crucial affective attribute and mindfulness-based activities in curricula could be effective in promoting student mental health and well-being (Noble et al., 2019). Yeager and Dweck (2012) claimed that resilience is essential for student success as it enables students to positively respond to academic and social challenges. Intrinsic motivation is reported as a key factor that determines student academic achievement (Kozina & Mlekuž, 2016).

Student Learning Outcomes

Student learning outcomes (SLOs) are "statements that describe what students can do or have to perform at the end of the learning process" (Nasralla et al., 2021, p. 727). Based on the previous literature review section regarding three learning domains, SLOs can be specified as knowledge, skills, abilities, or the mindset changes that instructors expect students to attain by the end of learning. Kuh et al. (2014) championed that the primary goals of SLOs are to determine whether students possess the knowledge and ability that education institutions and policymakers expected. Additionally, SLOs serve as evidence of student learning and the impact

of teaching; assessing SLOs is a process of collecting, learning, reviewing, and analyzing the evidence in order to ensure education quality as well as improve the effectiveness of education (Wang, 2018). Therefore, SLOs must be presentable or demonstratable, as well as observable and measurable.

CHEA's accreditation documents provided a terminology and policy framework to structure accrediting organizations to incorporate assessing SLOs into the accrediting process (Beno, 2004). Consequently, to respond to the need for education quality assurance and accreditation requirements for compliance, education institutions should promote the emphasis on effectual student learning outcome assessment practices for evidence-based decision-making. The SACSCOC Resource Manual (SACSCOC, 2020) 8.1 requires that institutions publish student learning outcomes in a way that is accessible to the general public and explicitly states not to publish student learning outcomes behind an internet firewall or on webpages that require password-protected protected logins.

Assessment for Learning

Assessment is considered an equitable and fair approach to measuring SLOs (Glazer, 2014). According to the definition provided by American Educational Research Association (AERA), American Psychological Association (APA), and the National Council on Measurement in Education (NCME; 2011), assessment refers to "a process that integrates test information with information from other sources (…. such as inventories, interviews, or the individual's social, educational, employment, health, or psychological history)" (p. 2). Banta and Palomba (2015, as cited in Hundley et al., 2019) combined many definitions of assessment and defined it as the "process of providing credible evidence of resources, implementation actions, and outcomes undertaken for the purpose of improving the effectiveness of instruction,

programs, and services in higher education" (p. 27). Moseley and Christina (2019) viewed the assessment of learning as a process of pairing student learning outcomes with institutional learning objectives; the data generated from this process serves as evidence to guide institutions in reshaping programs and supporting student needs with levels of personalization. Kuh et al. (2014) specifically refined the assessment of learning in higher education as a systematic collection, the process of subsequently using evidence of student learning to improve programs, institutions, and learning.

The purpose of assessment practices in education is manifold. First, the results of assessment could help educators gauge or monitor educational progress and direct the improvement of student learning through reshaping pedagogical practices or course materials (Schoepp & Benson, 2016). Second, assessment results could also direct faculty professional development and integration of technology (Wylie et al., 2009). Finally, The National Institute for Learning Outcomes Assessment (NILOA) emphasized that assessment of learning could guide institutional actions and develop a culture of evidence-based decision-making (Kuh et al., 2014). Therefore, assessment is not only an important indicator that indicates students' attainment but also an influential process that provides information for improving teaching and learning. Formative assessment and summative assessment are the common approaches to evaluating SLOs (Cizek, 2010).

Formative Assessment. Formative assessment can be defined as a planned process that gathers and synthesizes information relevant to the purposes of exploring students' strengths and weaknesses and enhancing teaching practices (Cizek, 2010). Scriven (1967, as cited in Grant et al., 2021) proposed using the term "formative" to describe the role of evaluation in education. Bloom et al. (1971, as cited in Grant et al., 2021) connected the concept of formative evaluation

as an instructional process that helps educators gather information for improving teaching and learning. The research of Nix and Song (2020) illustrated that using student self-reflections as a formative assessment approach to assess whether affective learning outcomes of an online course have been achieved was an effective process.

Gipps (1994) emphasized that formative assessment is an ongoing process and teachers are critical during the assessment process. He further stated that the information teachers obtained allows teachers to build a solid and broadly-based understanding of what and how students learned, so that teachers could elicit the best student performance (Gipps, 1994). Black and Wiliam (1998) later stressed that learners also play an important role during learning; they also pointed out the importance of adapting formative assessment to perceive learners' responses to their expectations and assumptions about learning process, and their understanding of the demand for success. Popham (2009) defined two dimensions of formative assessment based on the purpose of assessment practices: providing evidence regarding instructional activities for educators and justifications for adjustments in learning tactics for students; it is important for students to recognize that we care how much they learn.

Sadler (1989) emphasized that feedback is a key element in formative assessment that supports teachers to make programmatic decisions for certain interventions, as well as allows students to monitor their performance. Glazer (2014) confirmed that formative assessment is any task that provides feedback through open-ended questions, reflective essays, and performance tasks to guide student growth. Popham (2009) claimed classroom discussion and question and answer sessions are effective approaches that provide evidence for teachers making adjustment decisions. Reflective practice is another formative assessment approach that helps educators enhance curricula and foster a culture of learning in classrooms (Trauth-Nare & Buck, 2011).

Wylie (2020) opined that formative assessment tends to overrely on self-reporting and surveying as data-collection methods and suggested that classroom observations using contrast observation protocols could provide educators with timely formative feedback. In sum, formative assessment collects information regarding what and how students have learned, so that educators could make corresponding decisions for enhancing teaching and learning practices, whereas students could identify their growth and deficiencies.

Summative Assessment. Summative assessment is another critical approach to measuring SLOs. According to Sadler (1989), summative assessment "is concerned with summing up or summarizing the achievement status of a student and is geared towards reporting at the end of a course of study especially for purposes of certification" (Sadler, 1989, p. 120). Summative assessment has been dominant in research and education due to its validity and reliability (Sadler, 1989). Iliya (2014) clarified that the purpose of summative assessment is to summarize and report what students have learned during an established term; therefore, summative assessment is a criterion-referenced tool to record student's learning at regular intervals.

Gipps (1994) pointed out the significant difference between formative and summative assessments are purpose and effect; summative assessment is often conducted at the end of a term or half-term for grading-determinations rather than formative-purposes. AERA, APA and NCME (2011) delineated that "the assessment of student learning outcomes typically serves as summative assessment" (p. 184). In other words, summative assessment is to evaluate student learning outcomes; the result of summative assessment indicates the levels of student performance. Examples of summative evaluations include standardized tests, such as Graduate Record Examinations (GRE), American College Testing (ACT), Scholastic Assessment Test

(SAT); final exams, final performance, and state tests are also considered as summative evaluations (Dixson & Worrell, 2016). Summative assessment is also used to determine eligibility for certain certifications (i.e., career guidance), qualifications (i.e., gifted and talented education), or access to specific programs (Dixson & Worrell, 2016).

Bloom's taxonomy has been used in learning outcomes definitions, standardized testing, and textbook-developer practices (Booker, 2007; Savic & Kashef, 2013). Summative assessment is to evaluate whether students achieve learning outcomes, and Chandio et al. (2021) proposed using Bloom's taxonomy in summative assessment practices to reform pedagogy. Booker (2007) emphasized that examinations that had been built based on Bloom's taxonomy should be considered for reflective purposes instead of used as integral learning tools. Dixson and Worrell (2016) indicated that the relationship between formative and summative assessment should be complementary: formative assessment is used to help students learn materials throughout the process, and summative assessment is applied to assess how much students have learned, and which information has been retained. As Chandio et al. (2021) summarized, "formative assessment is 'for' the learning whereas summative assessment is 'of' the learning" (p. 111). Nix et al. (2022) characterized formative assessment *as* learning for the organization itself and for instructors.

Accreditation

Higher education institutional legitimization is conferred by accrediting agencies in the United States. Specifically, specialized accreditation is required for all health sciences programs. The National Advisory Committee on Institutional Quality and Integrity (NACIQI) is an advisory body that authorized and reconstituted by the U.S. Department of Education (USDE); it is an appointed group under USDE that "provides recommendations regarding accrediting

agencies that monitor the academic quality of postsecondary institutions and educational programs for federal purposes" (USDE, n.d.). The Council of Higher Education Accreditation (CHEA) is "a private, non-profit national organization that coordinates accreditation activity in the United States…." (Eaton, 2015, p. 1). In the *Overview of U.S. Accreditation,* Eaton (2015) concluded that CHEA and USDE NACIQI together award or deny accreditation recognition; CHEA contributes to ensuring academic quality whereas USDE via NACIQI is responsible for maintaining the stability of institutions/programs that receive federal funds. Busby (2015) clarified that USDE and CHEA do not accredit education institutions yet legitimize accrediting agencies and maintain the database of higher education institutions.

The USDE provided an overarching goal of accreditation, which is "to ensure that education provided by institutions of higher education meets acceptable levels of quality" (USDE, n.d.). According to the definition provided by CHEA, accreditation is a "review of the quality of higher education institutions and programs… and a major way that students, families, government officials, and the press know that an institution or program provides a quality education" (CHEA, n.d., para. 1). Gaston (2014) brought to the fore that, "the most prominent mission of accreditation is to "to distinguish credible, reliable colleges from inadequate institutions" (p. 31). Accreditation is a voluntary process through self-regulation and non-governmental peer review executed by member institutions (Garfolo & L'Huillier, 2015).

According to the guidelines provided by NACIQI, there are two basic types of accreditations, institutional, which applies to the entire college or university, and specialized (or programmatic) which applies to programs that are units operating under an institution (USDE, n.d., p. 2). These accrediting agencies seek USDE, NACIQI, and CHEA legitimization since USDE recognition represents the eligibility for federal student aid funds while CHEA confers

academic legitimacy (Eaton, 2015). Accordingly, accrediting agencies need to review and grant both eligibility and legitimacy for education institutions and specialized programs.

Regional Accrediting Agencies. Accreditation entities in the United States often include regional, national, and programmatic (sometimes referred to as specialized) agencies serving gatekeeper roles for federal education funding; however, regional accreditors might be more influential and commonly accepted than others due to the historical heritage, education traditions and contributions, and federal funding (Gaston, 2014). In practice, programmatic accreditation standards include specialized rigor principles which extend beyond the standards of regional institutional accreditation in many cases (Garfolo & L'Huillier, 2015).

Regional accreditation has long been considered the standard for the legitimization of universities and colleges (Provezis, 2010). At the time of this research there were seven regional accreditors in the United States, recognized by NACIQI and CHEA (CHEA, n.d.). The list of the seven regional accreditors is shown below:

- ACCJC—Accrediting Commission for Community and Junior Colleges, an extension of Western Association of Schools and Colleges (WASC) focused on 2-year colleges
- HLC—Higher Learning Commission
- MSCHE—Middle States Commission on Higher Education
- NECHE—New England Commission of Higher Education
- NWCCU—Northwest Commission on Colleges and Universities
- SACSCOC—Southern Association of Colleges and Schools Commission on Colleges
- WSCUC—WASC's Senior College and University Commission

This study focused on one of those regional accreditors, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). SACSCOC accredits colleges and

universities in “Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, Latin America, other Commission approved international sites, including the accreditation of programs offered via distance and correspondence education within these institutions” (SACSCOC, n.d.).

National Accrediting Agencies. National accrediting agencies operate across the United States, following similar protocols as the regional accrediting agencies; however, they are often classified into two types based on commonalities, faith-oriented, and career-based (Gaston, 2014). Many for-profit institutions are recognized by national accrediting agencies yet not recognized by regional accrediting agencies; therefore, in general, institutions with national accreditation are rarely accepted by regional accrediting agencies; accordingly, students’ credits from those nationally-accredited for-profit institutions may not be recognized by those colleges or universities which are legitimized by regional accrediting agencies (Senate Committee on Health, Education, Labor and Pensions, 2012). This study only took data into account from the institutions and programs that have been accredited by the regional accrediting agencies, specifically, SACSCOC.

Specialized or Programmatic Accrediting Agencies. Specialized accrediting agencies operate nationwide; in general, they review and confer legitimation onto programs located within higher education institutions that are accredited by one of the regional accrediting agencies or single-purpose institutions (e.g., nursing, pharmacy, and law; Congressional Research Service, 2017). Because of the technical nature of the specialized academic programs, specialized accreditation standards are more critical than the standards required by regional institutional accreditation (Garfolo & L’Huillier, 2015). The most common model is to consider accreditation of a program within an institution which has already been accredited by a regional accrediting

agency, since the quality of a program cannot be assessed effectively outside of its institutional context (Gaston, 2014). Therefore, when reviewing particular academic programs, it is necessary to consider both institutional and specialized accreditation.

The following list shows several specialized accrediting agencies:

- ABA— The American Bar Association
- CAEP—The Council for the Accreditation for Educator Preparation Bar Association
- NLNAC—The National League for Nursing Accrediting Commission
- ACPE—The Accreditation Council for Pharmacy Education (Gaston, 2014).

Central to this study, specialized accreditors have indicated that affective domain learning assessment should be added to programmatic accreditation portfolio submissions. The National League for Nursing for Nursing Accrediting Commission (NLN AC) had been (NLN), and as a subsidiary of NLN, was the only specialized accrediting agency for nursing programs from 1952 to 1998 (Keating, 2015). To comply with the USDE's requirements of separating accrediting practices from trade organizations, NLN-AC was removed from NLN and took full responsibility for nursing accrediting as an independent accrediting agency in 1997, and subsequently in 2013 was renamed as Accreditation Commission for Education in Nursing (ACEN, n.d.).

The American Association of Colleges of Nursing (AACN) is the national voice for academic nursing and currently has 865 institution members (AACN, n.d.). To shape legislative and regulatory policy affecting nursing education and research, AACN established an autonomous specialized accrediting agency, the Commission on Collegiate Nursing Education (CCNE), which is recognized by USDE and accredits nursing programs at various levels, including baccalaureate, master's, doctorate, and postgraduate certification (CCNE, n.d.).

The National League for Nursing Commission for Nursing Education Accreditation (NLN CNEA) is an autonomous accreditation division under the leadership of NLN and started to accredit nursing programs in 2016 (CNEA, 2016). Bellack et al. (1999) conducted research regarding nursing accreditation choices and indicated that more institutions chose CCNE as their accrediting agency. However, limited literature has focused on the choice for nursing accreditation since then. This study focused on CCNE-accredited programs, and the standards and guidelines set forth by CCNE.

Assessment for Accreditation

For accreditation (or re-accreditation) purposes, education institutions need to gather and present evidence that demonstrates accomplishing educational goals and continuously producing improvements through assessment practices (Volkwein, 2010). Assessment of student learning outcomes (SLOs), as a common mechanism, has often been mandated for higher education programs evaluation practices (Davis, 2016). For example, the U.S. Department of Education required accreditation agencies to take performance outcomes assessment (including completion rates and student learning outcomes) as the priority rather than inputs or processes (Miller et al., 2006). In other words, assessing student learning outcomes is a critical process during institutional and programmatic accreditation and reaffirmation (the SACSCOC term for re-accreditation) self-studies.

In 2000, CHEA recommended the implementation and assessment of cognitive learning outcomes (NCHEMS, 2000) using Bloom's taxonomy; since then, colleges and universities have been assessing cognitive learning outcomes to demonstrate student academic attainment to their respective accrediting bodies (Nix et al., 2022). Ratka (2018) adumbrated affective skills for personal and professional development are included in accreditation standards as required

curricular outcomes for social work, nursing, and pharmacy programs, accordingly. These requirements indicated that assessment practice has extended to both cognitive and affective domains; assessment practices should not be only accreditation-driven or compliance-centered but must also help institutions continuously promote student development and achieve institutional excellence. Through efficacious assessment activities, accrediting organizations determine whether the accreditation could be awarded, renewed, probated, or denied (Eaton, 2015). Accreditation processes not only make decisions of awarding, renewing, or denying organizational legitimacy, but also enable institutions to measure and document the viability of alternate pathways and continuously drive the shift from a focus on teaching to demonstrations of learning (Gaston, 2014). As Garfolo and L'Huillier (2015) asserted, "the education community, in general, supports and legitimizes accreditation so that institutions can state that they possess sound educational practices and the ability for improvement through regular assessment, planning, change and reassessment" (p. 166).

Carnegie Classifications System

According to the information provided on the official website of the Carnegie Classification of Institutions of Higher Education (Carnegie Classifications), the Carnegie Classifications system is a framework for classifying or recognizing higher education institutions in the United States; the basic classification was published in 1973, and the last update was in 2019 (Carnegie Classification of Institution of Higher Education, n.d.) including:

three classification levels for doctoral universities:

- R1: very high research activity
- R2: high research activity
- D/PU: doctoral/professional universities

three classification levels for master's colleges and universities:

- M1: large programs
- M2: medium programs
- M3: smaller programs

Other basic classifications include two classifications for baccalaureate colleges, two classifications for baccalaureate/associate's colleges, nine classifications for associate's colleges, 14 classifications for special focus institutions (e.g., faith-related, medical schools and centers, and law schools), and tribal colleges as one separate classification. The Carnegie Classifications system is often applied by researchers for evaluating a variety of issues in higher education, as well as used by higher education institutions for identifying how they have been recognized in the system (Clark et al., 2007).

Healthcare Education

With the accelerated demographic changes, technological advancement, and resultant social change, healthcare practitioners are challenged by a series of issues caused by epidemiological changes, changes in medical knowledge, the evolution of technologies and treatments, healthcare delivery permutations, the emerging expectations, and both the real and perceived experiences of society and patients (Navaz et al., 2021). To cope with radical transitions, healthcare educators should make ongoing efforts focused on developing relevant competencies in order to prepare students in every healthcare profession with relevant knowledge, attitudes, and skills.

Additionally, some competencies are critical for healthcare professions. Usman et al. (2021) suggested that healthcare practitioners should foster some crucial skills, such as interpersonal/social skills including teamwork, leadership, role-playing, and communication,

which are crucial for medical education. Ratka (2018) recommended that empathy alongside other affective characteristics are essential in healthcare professions, particularly patient-centered care professions; those affective competencies include problem-solving, advocacy, interprofessional collaboration, cultural sensitivity, communications, self-awareness, and professionalism. Browne et al. (2021) identified a nine-item list of shared values, which included several noncognitive constructs such as ethical conduct, fairness, accountability, and respect (for learners and colleagues), to guide current healthcare education programs.

Browne et al. (2021) isolated that the major issue of healthcare education is professional silos as they obtained pedagogical skills from their own professions; to address this issue, healthcare educators should clarify the expectations of their roles, ensuring their shared values and activity are common across all healthcare professions. Frank et al. (2020) stressed that specialized accrediting agencies have called for great attention to embed competence-based healthcare profession education into the accreditation system; functional accreditation is considered as an essential solution for both quality assurance and continuous quality improvement, in order to address the challenges that healthcare educators have experienced, including poorly prepared graduates and the unacceptable variation in graduate abilities.

Nursing Education. The American Nurses Association Code of Ethics for Nursing (American Nurses Association, 2015) emphasized, "ethical tradition of the nursing profession is "self-reflective, enduring, and distinctive…. nurses are expected not only to demonstrate the values, moral norms, and ideals of the profession but also to embrace them as a part of what it means to be a nurse" (p. vii). The National League for Nursing (NLN) updated the first core value as "caring, integrity, diversity and inclusion, and excellence" (National League for Nursing, n.d.) to direct nursing education. In other words, besides necessary clinical knowledge

and skills, a qualified nurse also needs to possess these affective, and non-cognitive competencies mentioned above. In *The Essentials of Baccalaureate Education for Professional Nursing Practice*, professionalism and professional values (including altruism, autonomy, human dignity, integrity, and social justice) are defined as one of the essentials for nursing professional practices (AACN, 2008).

Scholars also defined some competencies that are critical for the nursing profession. Fukada (2018) stressed that nurse practitioners must possess a complex milieu of competencies such as values, attitudes, and personal traits, including affection, understanding, self-control, and critical thinking. Greeno et al. (2018) specifically pointed out that empathy is a multifaceted practical attribute that has a positive impact on the quality of healthcare. Caring is considered as a crucial concept; however, caring has been marginalized due to simulation practice (in use) as means to demonstrate learning outcomes (Onley & Zavertnik, 2020). Hence, nursing educators are facing the issue of reshaping educational programs to meet the requirements of nursing accreditors as the social and technology changes are leading to various types of upheaval.

NCLEX-RN®. NCLEX-RN® is known as the National Council Licensure Examination and aims to determine whether the examinee is qualified to begin practice as an entry-level nurse. This examination is funded by the National Council of State Boards of Nursing (NCSBN) and tests students' competencies in four areas: providing a safe and effective care environment, health promotion and maintenance, psychosocial integrity, and physiological integrity (NCSBN, 2019). The pass rate of NLCEX-RN might impact the ability of the nursing programs to securely maintain specialized or programmatic accreditation (McCloskey et al., 2019). CCNE requires nursing programs to achieve at least an 80% pass-rate on the NCLEX-RN® examination for

first-time test-takers (CCNE, 2008). Therefore, NCLEX-RN is also an effective criterion to judge programmatic legitimacy and institutional effectiveness.

Organizational Institutionalism

Organizational institutionalism as a research field examines how institutions interact with society and regulatory institutions to legitimize the organizations themselves and the extent to which change is driven within the interactional arrangements (Nielsen & Thomsen, 2018). DiMaggio and Powell (1983) stated that organizational institutionalism propounds organizational decision-making and faces formal or informal pressures exerted on the organization's function and social-cultural expectations; these pressures are embodied as legal or technical requirements, which might be felt as forces that drive organizations to organize around rituals. Gulden et al. (2020) pointed out that higher education has been shifting from university-oriented to market-oriented; organizational institutionalism serves as an innovative approach that provides norms, restrictions, and principles for behaviors, directing institutions not only to ensure quality educational services acquired by members of society but also to meet the expectations and needs of the society and all stakeholders. Therefore, accreditation agencies provide or alter legitimacy standards by integrating social laws, norms, and values from various sources (including government, regulatory, academic advisory, society, and individuals); concurrently, to respond to the requirements of continued legitimization, higher education institutions need to react to both internal and external pressures to sustain their positions as legitimate institutions.

Legitimacy. Greenwood et al. (2017) defined organizational legitimacy as the fundamental construct of organizational institutionalism referring to social mores, professional standards, or criteria against which the legitimacy of organizations might be judged and granted by a variety of sources through assessment practices. According to Maurer (1971, as cited in

Deephouse et al., 2017), legitimation is a process of organizations demonstrating their legitimacy to all stakeholders. Hence, the concept of legitimacy represents a bi-directional process: first, generalized perceptions that reflect desirable, proper, or appropriate rules, values, norms, and definitions; and second, validation of the appropriateness of organizations according to the generalized perceptions achieved and maintained through assessment activities by influential stakeholders.

With appropriateness as standards, four criteria (culture-cognitive, normative, pragmatic, and regulatory) are often used to determine four basic states of legitimacy respectively; accepted and proper represent the legitimacy of institutions and programs being unchallenged regarding the standards of accrediting organizations; the state of debate suggests that subjects' legitimacy is challenged to varying levels and improvement is needed; subjects judged as illegitimate lack a right to exist (Greenwood et al., 2017). For higher education institutions, it is critical to be legitimized, as Castelló and Lozano (2011) stressed, "without stakeholder legitimacy, an organization will not be able to renew its license to operate nor gain new spheres of power to grow" (p. 2). Consequently, to attain and maintain legitimacy, organizations need to integrate the expectations of stakeholders into the organizational strategies (Nielsen & Thomsen, 2018).

Civic-Mindedness

Civic-mindedness refers a concept with three dimensions: at the individual level, it describes the personal commitment to community values and the personal roles meeting expectations of other community members; on a professional level, civic-mindedness involves the professional skills, ethical principles, and instructional strategies, which enable an individual to work with others in workplaces; the final dimension is focused on an outcome of service-learning, including instructional strategies which help the person to interact with community

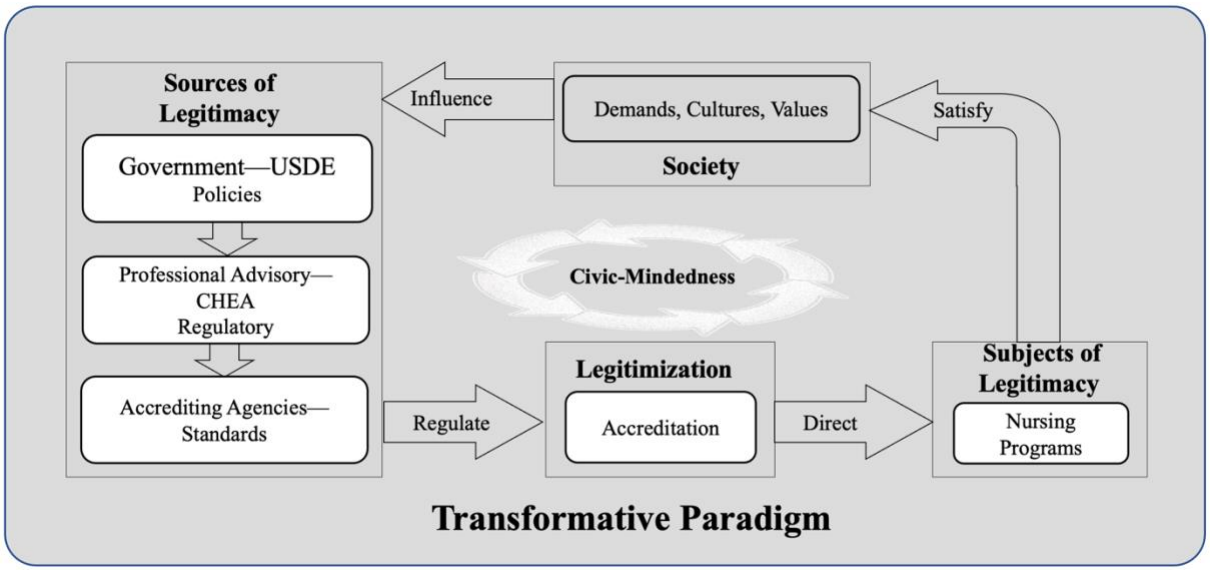
constituents (van Rooij, 2020). Patterson and Torsney (2021) highlighted that civic-mindedness should be an essential concept that intrinsically motivates people to achieve public good instead of complying with rules and policies. In February 2022, the National Institute for Learning Outcomes Assessment (NILOA, 2022) released their report of an updated Degree Qualifications Profile which included an additional emphasis on Civic/Democratic and Global Learning. The authors stressed that higher education has a responsibility to engage students in noncognitive learning that enhances intellectual skills, applied learning, and integrative knowledge; this is inferred to be necessary to increase civic-mindedness generally, across an educated and democratized populace.

Conceptual Framework Discussion

Deephouse et al. (2017) stipulated that, "organizational legitimacy is the perceived appropriateness of an organization to a social system in terms of rules, values, norms, and definitions" (p. 32). Therefore, legitimation can be viewed as a process through which organizations are granted legitimacy vis-à-vis assessing rules, values, norms, and definitions as regulatory, pragmatic, moral, and cultural-cognitive criteria. Based on the concept of organizational legitimacy and legitimization, a conceptual framework is created, shown in Figure 3.

Figure 3

Conceptual Framework for This Study



Research Paradigm

Research paradigms are overall strategies under which researchers operate (Mertens et al., 2010). Tactical decisions and approaches to methodologies are determined by researchers' paradigm selection. This study was conducted through the lens of a transformative paradigm. Mertens et al. (2010) defined the transformative paradigm as an overarching philosophical framework that is situated in a social justice orientation and emphasizes marginalized community voices. As Mertens (1999) earlier claimed, the framework influences how research could be done by including voices that had not been heard before and encouraging research to link societal inquiry to action. The nursing profession has traditionally been a field for women and barriers that have upheld such notions have been in place since the 1960s (Jamieson et al., 2019). The statistics provided by AACN indicated that 92.4% of the total students enrolled in all nursing programs (e.g., baccalaureate, master's, and doctor) self-identified as female. The National League for Nursing (NLN), as an organization was founded and continues to be governed by

women nurse leaders who served as nursing practitioners and nursing-program faculty members; one of its missions is to express voices, reshaping and influencing the policies that affect nursing workforce development (Jackson & Halstead, 2016). The American Association of Colleges of Nursing (AACN) revised essentials guides nursing education to center the concept of social justice into the nursing curriculum in order to help future nurses advocate for their patients and serve as better health policy leaders. Roy et al. (2022) also emphasized the need to include the concept of social justice in curricula for future nurses' professional identity development.

Additionally, organizational institutionalism as a theory focuses on legitimization, which can be distilled into a battle between structure and agency (Deephouse et al., 2017). The standards-organization, CCNE, is an accreditation organization which is recognized by USDE and accredits nursing programs at various levels, including baccalaureate, master's, doctorate, and postgraduate certificate. CCNE provides standards, procedures, and guidelines, to ensure the quality of nursing education programs. The efforts of these professional-standards organizations to legitimize the affective learning domain into their profession may be viewed through a social ontological lens as a meaningful event (Biesta, 2010) regarding the history of the profession, with the intent of evocative transformation that essentially would reorganize the profession.

Consequently, this research falls under a transformative paradigm, which also envelops organizational institutionalism's theoretical lens, as incorporating affective learning into nursing education programs can be seen as a process that transforms the current practices of implementing affective learning in nursing education as the efforts of promoting justice and goodness of the nursing profession, as well as responding to the requirements of accreditation and the needs of society. In other words, the transformative paradigm provides a social justice umbrella under which the conceptual framework for this research is nested.

Sources of Legitimacy—USDE, CHEA, and Accrediting Organizations

This process involves subjects and objects of legitimacy: sources of legitimacy are internal and external audiences who have capacity to monitor, and "subjects of legitimacy refer to those social entities, structures, actions, and ideas whose acceptability is being assessed" (Deephouse & Suchman, 2008, p. 54). In this study, the sources are reflected as a three-stage hierarchical system. USDE represents authority, recognizing the soundness of institutions and programs for receiving federal fundings; CHEA is recognized by USDE, assuring accrediting agencies for maintaining and improving education quality; finally, accreditation agencies are recognized by CHEA, conducting accreditation activities for assuring institutions and programs providing quality education (Eaton, 2015). Therefore, USDE recognizes fiscal legitimacy in the form of governmental funds; CHEA grants regulatory legitimacy to accrediting organizations (e.g., regional and specialized); and accrediting organizations themselves in turn accredit institutional or programmatic legitimacy to institutions and programs. All the sources represent authority on fiscal stability and academic quality through assessment practices.

Legitimation—Accreditation

To make accreditation a legitimate process, USDE, CHEA, and accrediting organizations created standardized accrediting activities, including assessment, judgement, and decision-making based upon "a core set of traditional academic values and beliefs" (Eaton, 2015, p. 3). The accreditation process is an ongoing legitimating cycle. Institutions and programs could be awarded (or have reaffirmed) their accreditation statuses if they are able to demonstrate appropriateness based upon the standards of accrediting organizations. In other words, their legitimacy could be substantiated and sustained. Institutions or programs which are put on a provisional or probationary status can be defined as debated organizations/programs, which need

to make improvements to retain their accreditation. Illegitimate institutions or programs are those whose accreditation is denied or not reaffirmed; they must make substantial efforts to reclaim legitimization. The efforts through which institutions or programs have strived to gain, retain, or reclaim accreditation is in essence, a process of legitimization.

Subject of Legitimacy—Nursing Programs

Legitimate nursing programs as the subject of legitimacy, need to be accredited by both regional and specialized accreditation organizations (SACSCOC and CCNE in this study). Therefore, the purpose of nursing programs accreditation is twofold; first, to meet the standards of accreditation as academic programs; second, to "hold nursing programs accountable to the community of interest" (CCNE, 2008, p. 3). Therefore, the standards of accreditation for both SACSCOC and CCNE direct nursing programs to meet the requirements as legitimate educational programs, as well as prepare students to satisfy demands and expectations of the society; as Fawaz et al. (2018) highlighted, nurses should be not only educated in clinical aspects but also trained to care for the human spirit, cultures, and societies. During this process, civic-mindedness might serve as a cohesive force, which motivates nursing educators to reshape their programs as competence-based and outcome-orientated education; it also enables program directors intentionally to make efforts on programmatic improvement rather than accreditation requirements viewed through compliance-only lenses.

External Pressure—Society

Greenwood et al. (2017) stated that an organization needs to conform to social expectations by demonstrating appropriateness to gain legitimacy; they defined that the perceived appropriateness is built on societal rules, norms, values, cultures, or meaning systems. As society has evolved, 21st-century challenges have manifested, such as traveling and multi-

lingual demands, delivery-mode shifts, nurses' mental-health concerns, specialized nursing, online nursing capacity, and healthcare equity issues (National Academies of Sciences, Engineering, and Medicine, 2021). These challenges generate social pressures, which might influence policymakers' decision-making on the levels of "regulatory, pragmatic, normative, and cultural-cognitive" (Greenwood et al., 2017, p. 28). Beno (2004) verified that accrediting organizations' processes of reviewing institutional quality of student learning outcomes often experience increasing public concern and accountability for higher education as external pressures. Consequently, to continuously ensure sustainable improvement, USDE, CHEA, and specialized accrediting organizations take public responsibility to meet evolving demands of society and embrace the changes. Civic-mindedness, during this process, intrinsically motivates stakeholders to assess the needs and demands of society and external stakeholders, in order to update accreditation standards and optimize accrediting methodology, and continuously ensure the legitimation process is also aligned with the public well-being and community interest. Leavy (2017) claimed transformative research should be inclusive, participatory, and democratic, and can be viewed as "an engaged, politically and socially responsible enterprise with the power to transform and emancipate" (p. 11). The accreditation process includes policymakers and regulatory organizations, academic organizations, external stakeholders, and society in general, which fit into the transformative paradigm.

Summary

Learning domains can be used to define academic attainment for students. The cognitive learning domain has been widely applied to educational programs to structure student learning objectives; the affective learning domain, however, has been oft neglected. Some professions, particularly nursing, might have more critical demands in the affective learning domain due to

the unique ethical and moral aspects of these professions. To meet those demands from clients and society, accreditation organizations created or updated relative standards regarding student affective development. Accordingly, education institutions needed to reshape their programs in order to comply with accreditation standards.

Chapter 3: Research Method

This chapter introduces the definition of mixed methods research and the rationale for choosing research methods for this study. This chapter also describes the process of selecting a research population and research sample. In this chapter, a detailed process of data collection and data analysis is included in four stages. Finally, this chapter addresses trustworthiness (which contains four constructs), the researcher's role, and ethical considerations.

Research Design and Method

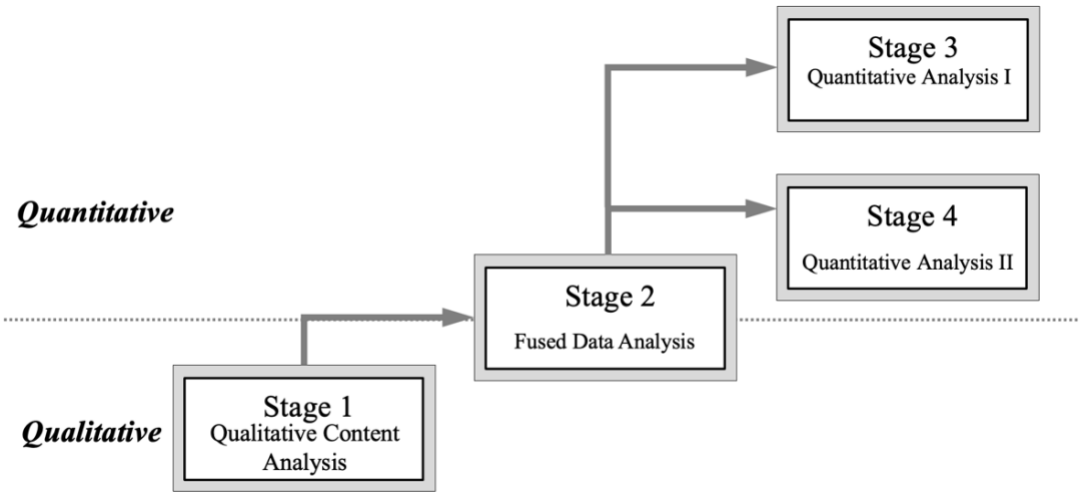
The central purpose of this study was to examine the current practices of implementing affective learning outcomes assessment of the undergraduate nursing programs accredited through SACSCOC and CCNE. To study the practices, a mixed methods study was conducted. Tashakkori and Teddlie (2010) defined that the methodology of mixed research refers to the broad inquiry logic that guides a collection of methods and series of methodologies. As Creswell (2002) indicated, mixed methods research includes a process of "collecting, analyzing, and mixing both quantitative and qualitative data in a single study or a series of studies" (p. 317).

Mertens et al. (2010) defined a transformative design as "one in which researchers ground their work in the transformative paradigm's belief systems and then use quantitative methods, followed by qualitative methods or the converse" (p. 199). This mixed-methods research project was transformative at the design level through inherently mixed data analysis (Teddlie & Tashakkori, 2009) because it quantitized qualitative data, and conversely, qualitized quantitative data between stages using a mixture of techniques referred to as fusing to study "an intertwining of interests with multilateral organizations and professional associations that share similar values in the promotion of human rights" (Mertens et al., 2010, p. 196).

This mixed methods study included a transformative reorganization of the higher education cognitive-based learning outcomes assessment system into one that includes affective-based learning outcomes. To accomplish this, a 4-stage approach was used to intertwine the qualitative data collection and analysis with the quantitative data collection and analysis (see Figure 4).

Figure 4

Transformative Mixed Methods Design



Research Stages

As illustrated in Figure 4, there were four distinct stages to this study. Stage 1 began with qualitative data collection, followed by fused data analysis that transformed data from qualitative to quantitative in stage 2. This study also collected mixed data using the National Center for Education Statistics (NCES) online College Navigator tool (stage 3) and the Carnegie Classification System lookup tool (stage 4) and analyzed the collected data using the Minitab (2022) statistical analysis tool (stages 3 and 4).

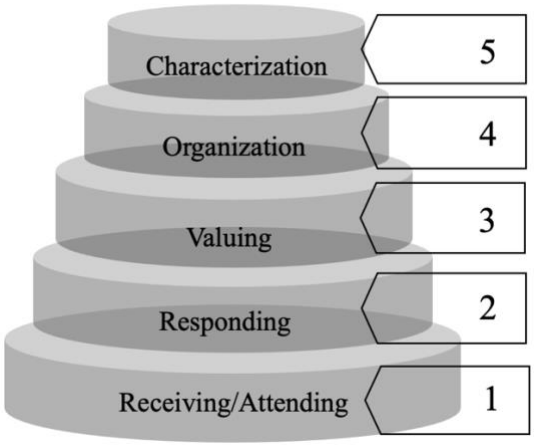
Stage 1: Qualitative Content Analysis for ALO Statements. This stage collected undergraduate nursing program affective learning outcomes (ALOs) statements from the official

programs' online narrative materials and analyzed these qualitative data through qualitative content analysis (Mayring, 2021). Mayring (2021) included within qualitative content analysis (QCA) methodologies tactics whereby levels from a preexisting rubric are used to score qualitative text that fits into said predefined categories. These ALO statements of the selected 228 baccalaureate nursing programs were structured as textual data, which yielded qualitative data for this stage; there was no sampling. This stage was deductive because existing literature suggested that nursing programs were more likely to have already integrated affective learning domain outcomes. Based on Krathwohl's affective learning taxonomy, the content analysis deductively determined whether this was, in fact, reality, which also answered the RQ1, "to what extent have those nursing programs incorporated the affective learning domain into their learning and assessment practices?"

Stage 2: Fused Data Analysis. Stage 2 incorporated fused data analyses into the design. It contained inductive processes, beginning with fused data analysis described as, "… 'fusing' of analysis then takes this stage beyond blending of different sources to the place where the same sources are used in different but interdependent ways in order to more fully understand the topic at hand" (Bazeley, 2003, p. 26., as cited in Teddlie & Tashakkori, 2009). In other words, fused data analysis was used to transfer qualitative data into a representational format that allowed quantitative analysis. During this stage, a scoring system, to categorize the affective learning level scale, was created based on the *Affective Learning Domain Taxonomy* (Krathwohl et al., 1964), as illustrated in the following Figure.

Figure 5

Affective Learning Level Scale



The ALO statements of the 228 nursing programs were quantitized, scored, and categorized according to the newly created affective learning level scale. Each taxonomic level of affective learning domain begins with a verb/gerund. There are numerous tables available with verb and gerund groupings already published. Those groups of verbs/gerunds provided lists with which the programmatic learning outcome statements were compared. Appendix A illustrates the word lists. ALO statements that included, for example, the words associated with receiving/attending (the lowest taxonomic level) were scored as "1." Terms synonymous with responding (the second lowest taxonomic level) were scored as "2." This procedure continued with a score of "5" being assigned to ALO statements that were written at that culminating characterization taxonomic level.

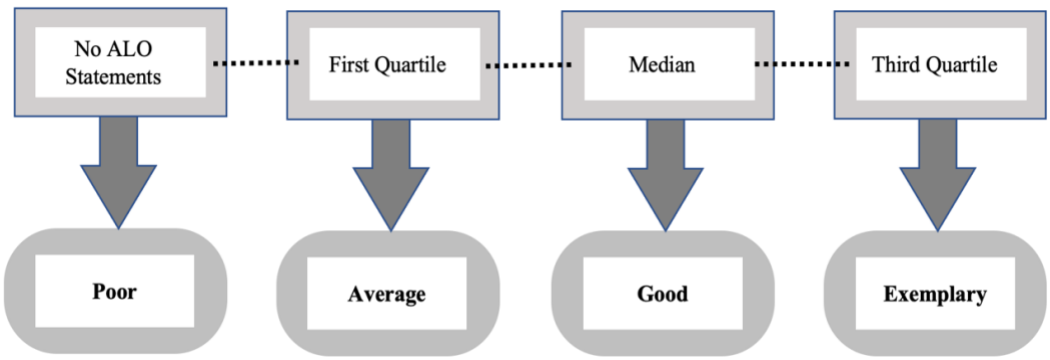
From that point, qualitative content analysis was used. The basic premise of this specific qualitative content analysis methodology was to assign preexisting categories to (numerically represented) passages of text which Mayring (2021) called a "qualitative interpretive step" (p. 2), and then analyze quantitatively, the occurrences and frequencies in relation to other variables of interest. Mayring (2021) also suggested that the categories must remain central to analyses once

they have been assigned. This was the case, as those categories constituted the scale, creating ranked Song taxonomic levels which then served as this study's dependent variable for each subsequent stage. Finally, a new independent variable was also created at this stage: the number of institutional ALO statements. This stage provided data to answer RQ2, "at which Krathwohl's affective taxonomic levels are affective domain learning outcomes most typically assessed in those programs?" The ensuing stages, 3 and 4, were conducted in parallel but it should be iterated that sequential stages would have also sufficed.

The scored ALO statements were subsequently used to rank the programs. In the case of programs that had multiple ALO statements, a median score was calculated so that each program was scored only once, overall. Those programmatic scores were then used to sort programs into a newly established Song taxonomy. The levels of the Song taxonomy were determined based on descriptive statistics. It was anticipated that at least four levels, no ALO statements, the first quartile, overall median, and the third quartile, would have provided demarcations for the categories of the proposed taxonomy; that did, in fact, turn out to be the case. Additionally, ALO statement totals played a role insofar as programs which did not have any ALO statements comprised a separate lowest category of the newly created a Song's taxonomy (see Figure 6).

Figure 6

Affective Learning Program Taxonomic Categories



No ALO statements, the first-quartile, median, and third quartile ranks, along with an analysis of interquartile ranges, were appropriate for sorting programs into taxonomic categories.

Stage 3: Quantitative Data Analysis I. Institutional characteristic data were gathered through the National Center for Education Statistics (NCES) online College Navigator tool. Descriptive variables for the 228-baccalaureate nursing program parent institutions included institution type, degree award levels, campus setting, campus housing availability, student population, student-to-faculty ratio, tuition, net price, enrollment, admission, retention rate, outcome measures, and cohort default rate. Inferential statistics, including general linear modeling and ordinal logistic regression were conducted using taxonomic levels as the dependent variable. For occurrences of nonparametric data, alternative analyses were substituted as necessary. This provided data for RQ3, "Which institutional characteristics are related to the predictivity of exemplary practices for incorporating affective learning domain outcomes into undergraduate nursing programs?"

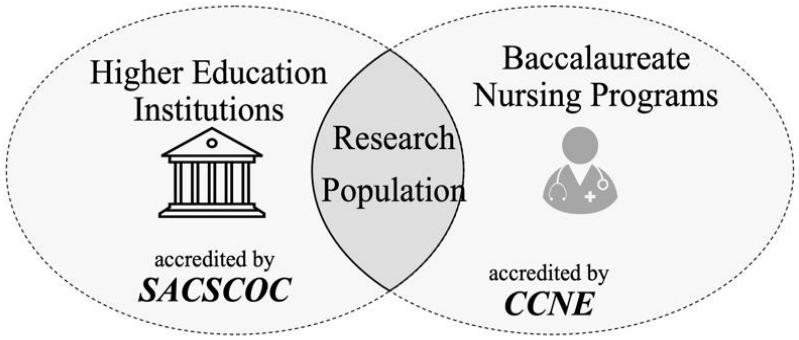
Stage 4: Quantitative Data Analysis II. In this stage, additional institutional characteristic data were collected according to the Carnegie Classification System lookup tool (Institution Lookup, n.d.). Descriptive variables for the 228-baccalaureate nursing program parent institutions included 34 classifications treated as independent variables. Inferential statistics, including general linear modeling and logistic regression using the taxonomic level as the dependent variable, were conducted. The results of stage 4 provided data for RQ4, "what types of institutions have implemented affective learning outcomes at the highest taxonomic level and might therefore serve as exemplars?"

Population

The study population included all baccalaureate nursing programs accredited by the regional accreditor, Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), and the specialized accreditor, Commission on Collegiate Nursing Education (CCNE; see Figure 7). These nursing programs were selected from the two accreditors' membership lists on their official websites. First, SACSCOC listed 779 higher education institutions across 11 states: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. Second, CCNE recognized 228 programs across those 11 states which are also accredited by SACSCOC. The entire population of 228 baccalaureate nursing programs were included in this study. Figure 7 indicates the total number of institutions selected from SACSCOC-accredited higher education institutions and CCNE-accredited baccalaureate nursing programs.

Figure 7

Research Population



Study Sample

There was no sampling involved in this research. The entire research population (228 baccalaureate nursing programs) provided the data for this study.

Materials/Instruments

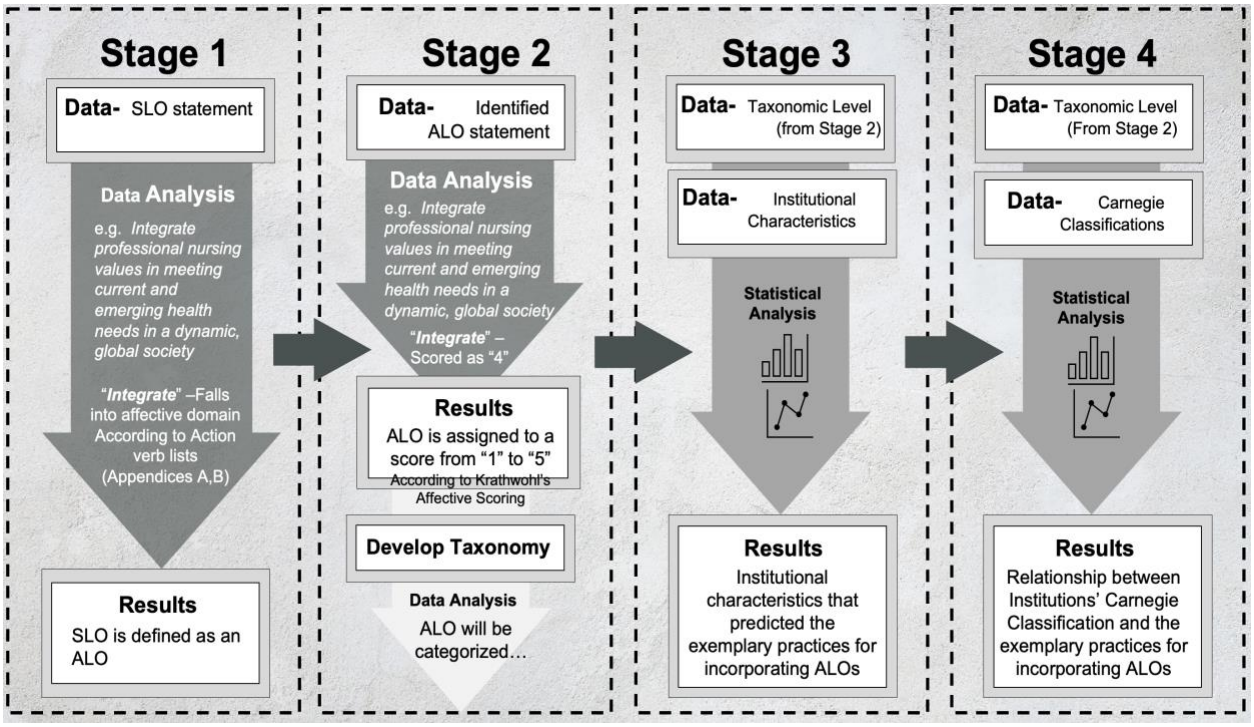
A scoring system, an affective learning level scale was derived from Krathwohl's affective taxonomy (previously represented in Figure 5). The scoring scale assigned a one (1) to the lowest Krathwohl's taxonomic level outcome statements and up to a five (5) to the top hierarchical-level outcome statements.

Data Collection and Analysis Procedures

All the data were collected from three different sources: institutions' official websites, the government's public online database, and the non-profit organization's public online database. There were four stages of data collection and analysis in this study. For each stage, multiple analysis methods were applied. The four-stage data collection and analysis processes are illustrated in the following figure.

Figure 8

Four-Stage Data Collection & Analysis Illustration



Stage 1

Stage 1 involved collecting student learning outcome statements listed on the official websites of the 228-baccalaureate nursing program parent institutions. QCA was applied to analyze textual data, determining whether each of the ALO statements is an ALO or non-ALO. The variables resulting from those procedures are illustrated in Table 1.

Table 1

Stage 1 Data Collection and Analysis: Variables Defined

Variable name	Response options
Learning Outcome Statement	Affective, Non-Affective
State Name	11 states
School Name	228 names

Stage 2

During this stage, the qualitative data, the ALO statements of the 228 nursing programs, were analyzed using the qualitative content analysis method. Each ALO statement was quantitated and scored according to the affective learning level scale (refer back to Figure 5) and then categorized according to the newly established Song's affective learning taxonomic categories (Figure 6). The variables resulting from those procedures are illustrated in Table 2.

Table 2

Stage 2 Data Collection and Analysis: Variables Defined

Variable name	Response options
ALO Statement	1, 2, 3, 4, 5
Number of ALO Statements	Any Value from Zero upward
Taxonomic Level	Poor, Average, Good, Exemplary

Using the data from Table 2, the learning outcome statements were further analyzed. A content analysis was conducted on the learning statements to classify each statement into the taxonomic classification.

Using the data from each institution two datasets were created. The first dataset consisted of the ALO statement at the taxonomic level. For each ALO statement, the following were captured:

1. School
2. School location
3. Learning outcome statements
4. Learning statement learning domain category
5. Learning statement taxonomic level score

To address RQI, "to what extent do nursing programs incorporate the affective learning domain into their learning and assessment practices?," the program data set was analyzed. Descriptive statistics were used to describe the number of ALOs that had been incorporated into each nursing program. In addition, the ALO subject category and taxonomic scores were summarized using frequencies and percentages. Percentages determined to what extent nursing programs had incorporated the affective learning domain into their assessment practices.

Following the above referenced analysis, the second dataset (the program dataset) was created and consisted of the following:

1. School
2. Location
3. Program median score
4. Number of ALOs

5. Krathwohl taxonomic level category

RQ2, “at which Krathwohl’s taxonomic levels are affective-domain learning outcomes most typically assessed in those programs?,” was answered using median and quartile representational scores.

Stages 3 and 4

These two stages were conducted in parallel but could have been conducted sequentially without altering the results. The program dataset was expanded by adding information about each program to reflect the institutional characteristics of each program. The data for Stage 3 was extracted from the National Center for Education Statistics (NCES) online College Navigator tool. The participating institutions of the study were bachelor nursing program parent institutions accredited by SACSCOC and CCNE. Through a cross-comparison, 228 institutions were identified. One institution from Texas was removed because no data for this school was found through Stages 3 and 4 data collection. Therefore, there were 227 institutions included in the analyses for the final two stages of the study.

Additional institutional characteristic data were collected through the Carnegie Classification System lookup tool. Specifically, the Carnegie Classification consisted of 34 categories which comprised the data for Stage 4.

The following data were extracted for each program:

Table 3

Institutional Characteristics

Variable name	Response options
Institution Type	Public, Private non-profit, Private for-profit, 4-year, 2-year
Degree Award-Level	Certificate, Associate's, Bachelor's, Advanced
Campus Setting	Rural, Suburban, Town, City
Campus Housing Availability	Yes, No
Student Population	Provided the min and max
Student-Faculty Ratio	Provided the min and max
Tuition	Provided the min and max
Net Price	Provided the min and max
Enrollment	Provided the min and max
Admission	Provided the min and max
Retention Rate	Provided the min and max
Outcome Measure	Any Ratio Value
Cohort Default Rate	Any Ratio Value
Carnegie Classification	34 categories

RQ3, "which institutional characteristics are related to the predictivity of exemplary practices for incorporating affective learning domain outcomes into undergraduate nursing programs?" and RQ4, "what types of institutions have implemented affective learning outcomes at the highest taxonomic level and might therefore serve as exemplars?" were then addressed using Minitab statistical software for descriptive and inferential analyses.

To address RQ3, a logistic regression analysis was conducted using the program dataset. The dependent variable was the program's Song's taxonomic level. The independent variables were the College Navigator institutional characteristics.

To address RQ4, a chi-squared tests were conducted using the program dataset. The dependent variable was the Song's taxonomic level. The independent variables were the Carnegie Classifications categories.

Trustworthiness

Trustworthiness for this study was established following the four constructs proposed by Guba (1981, as cited in Shenton, 2004).

Credibility. Triangulation strategies were applied during the data analysis process. Bloomberg and Volpe (2019) recommended that using multiple data sources to address the subjectivity and strengthen the credibility of the research. For this study, the ALO statements from institutions' official websites serve as the majority of sources. Institutional characteristics data gathered through the National Center for Education Statistics (NCES) online College Navigator tool and the Carnegie Classifications System as additional sources of evidence, were reviewed to profile the characteristics of the research population.

Transferability. Transferability refers to whether the findings of the study can be applied to other situations and contexts (Lincoln & Guba, 1985, as cited in Leavy, 2017). This research focused on how the current baccalaureate nursing programs were applying and implementing assessment of the affective domain learning outcomes. Since there was no sampling, generalizability across SACSCOC and CCNE accredited institutions is feasible. Findings are not transferrable outside the research population.

Dependability. Dependability of a research depends on whether the research process is documented clearly and logically and whether the data are stable, constant, and traceable (Bloomberg & Volpe, 2019). Shenton (2004) suggested researchers report in-depth, detailed processes of studies to address dependability issues. Hence, this study included in-depth

coverage of methodology, research design, data analysis methods, and detailed data collection (e.g., data gathering process details).

Confirmability. Confirmability requires researchers to demonstrate a real objective of the study rather than the researcher's inevitable biases (Bloomberg & Volpe, 2019). Based on this concept, an audit trail was conducted, allowing me to trace the research step-by-step and ensure integrity of all decisions made and procedures described regarding theoretical and methodological framework (Shenton, 2004).

Researcher's Role

Bloomberg and Volpe (2019) considered that the role of qualitative researchers "involves the collection, analysis, and interpretation of narrative and visual data to gain insight into a particular phenomenon of interest" (p. 45). This role allowed me to demonstrate the knowledge and skills garnered through my learning experiences as a traditional-aged and adult student in China and the United States. My educational background includes two associate degrees in engineering technology and fine art design (both in China), two bachelor's degrees in civil engineering (in China), liberal arts studies (in the United States), and a master's degree in higher education with a focus on enrollment management (in the United States). I have nearly 15 years of working experience as a civil engineer and served in multiple roles with 2- and 4-year public higher education institutions, including math instructor, pathways advisor, academic success coordinator, and online education manager. Therefore, the knowledge and skills garnered through the learning and working experiences enabled me to fulfill the role of collecting, analyzing, and interpreting data in different educational settings.

The literature in Chapter 2 indicated that it is common for educators to use Bloom's taxonomy to structure student learning objectives and assess student learning outcomes. My

teaching and training experiences in higher education also indicated that quantifying student cognitive learning outcomes were relatively easier utilizing Bloom's taxonomy, yet high grades or scores could not address students' questions or complaints, such as "why do I need to study math?," "I earned an "A" does not mean I love math!," or "how does math help me be a police officer?" (Personal Communications, 2015). Hence, I also served as an investigator, attempting to study whether the current nursing programs have considered how to answer similar *mindset* questions.

Fetters (2020) called for stretching and expanding our thinking about the categories of data procedures and data sources, as qualitative researchers may lack awareness of available measures and databases, whereas quantitative researchers often have a limited breadth of qualitative procedures. My educational background and working experiences in both engineering and higher education fields allowed me to proactively consider data iteratively, fuse collection sources, combine data collection strategies, and inherently mix data analysis procedures.

Ethical Considerations

Ethical considerations are embedded in all aspects of a research process, as Bloomberg and Volpe (2019) stated, researchers "should be as concerned with producing an ethical research design as we are an intellectually coherent and compelling one" (p. 200). Before collecting any data, the Collaborative Institutional Training Initiative (CITI) program coursework was completed. Additionally, approval through the Abilene Christian University Institutional Review Board (IRB) was procured (see Appendix B). Since the search population was the 228 baccalaureate nursing programs accredited by SACSCOC and CCNE, and all the data were collected through public websites, there were principal compliance concerns, including voluntary

participation, informed consent, anonymity, confidentiality, potential for harm, and results from communication (Fleming & Zegwaard, 2018) involved in this study.

Assumptions

The major assumption for the study was that nursing programs have begun to incorporate affective learning into their educational programs and assessment efforts, as was indicated vis-à-vis a thorough literature review, presented in Chapter 2. As the literature review indicated, nursing is one of a few programs which has included affective components, such as values, attitudes, and beliefs, into structuring student learning objectives. The second assumption was that I should be able to access the ALO statements from institutions' websites. USDE and SACSCOC required accredited institutions to publish learning objectives for each program; therefore, accreditors include this standard as a critical requirement for eligibility (USDE, 2017). Additionally, readers may consider that the study could serve as a reference for incorporating affective learning into their general education and co-curricular assessment practices, which may reshape the current status of the assessment profession and the field of instructional design; both widely using Bloom's taxonomy as an instrument. Finally, there was an assumption that institutions and programs would be concerned enough and able to update their publicly facing student learning objectives and outcomes on a timely basis, which would impact the transferability of the study.

Limitations

The population of the study included only regionally accredited SACSCOC institutions, whose standards and regulations may differ from other accreditors. Therefore, the results of the study might only be generalizable at the institutions accredited by SACSCOC yet lack reference value for those institutions accredited through other regional accreditors. Moreover, the

population is limited by the specialized accreditor, CCNE. Hence, the results of the study may provide insights to nursing practitioners; however, they might not be applicable to other healthcare fields accredited by different specialized accrediting agencies.

Delimitations

- The research excluded any nursing programs that are not accredited through SACSCOC.
- The research excluded any nursing programs that are not accredited through CCNE.
- The research excluded any nursing programs that may not have been in compliance with the Higher Education Reauthorization Act of 2008 and H.R. 4674 – the College Affordability Act of 2020, which require learning outcomes to be included as a part of consumer information on college and university websites. The SACSCOC Resource Manual (2018) 8.1 also requires institutions to list the programmatic learning outcomes on the programs' websites. It was possible that any institution which had not yet undergone reaffirmation, post-2018 updates, might not yet have complied with that specific SACSCOC Standard; as it turned out, that was not a delimiter.

Summary

This study was developed as a 4-stage, transformative mixed methods effort to examine the current practices of affective learning outcomes assessment for the 227 baccalaureate nursing programs accredited by SACSCOC and CCNE. The research began with a qualitative content analysis for ALO statements of those programs from the official programs' online materials, then quantitated and categorized those textual data by creating a new taxonomic scale. Additional data that described institutional characteristics were collected through the National Center for Education Statistics (NCES) online College Navigator and the Carnegie Classifications System lookup tool. The last two stages of the study were quantitative statistical analysis. With the

overview of the study's methodology complete, the study's findings are presented in the next chapter.

Chapter 4: Results

The purpose of this transformative mixed-methods study was to examine the current practices for implementing affective learning outcomes assessment used among undergraduate nursing programs accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) which were also accredited at the programmatic level by the Commission on Collegiate Nursing Education (CCNE). The following four research questions guided the study:

RQ1. To what extent have undergraduate nursing programs accredited by SACSCOC and CCNE incorporated the affective learning domain into their learning and assessment practices?

RQ2. At which Krathwohl's affective taxonomic levels are affective domain learning outcomes most typically assessed in those programs?

RQ3. Which institutional characteristics are related to the predictivity of exemplary practices for incorporating affective learning domain outcomes into undergraduate nursing programs?

RQ4. What types of institutions have implemented affective learning outcomes at the highest taxonomic level and might therefore serve as exemplars?

Once the stage 1 qualitative data collection was complete, a qualitative content analysis was conducted to analyze the data from institutions' official websites in order to determine whether student learning outcomes (SLOs) were affective learning outcomes (ALOs). Additionally, qualitative content analysis (Mayring, 2021) allowed me to quantize, score, and categorize each identified ALO statement to demonstrate the status of incorporating ALOs into those nursing programs. For RQ2, I created an affective learning level scale based on Krathwohl's affective taxonomy and assigned a score from 1 to 5, corresponding from the lowest

level, receiving, to the highest level, characterization. To prepare for stages 3 and 4, I developed Song's affective taxonomy using a combination of three indices:

- 1st index: The maximum assigned Krathwohl taxonomic level score, (the highest score among all assigned affective scores of an institution)
- 2nd index: The number of ALO statements
- 3rd index: The median of the assigned Krathwohl taxonomic level scores, to rank each institution's nursing program affective learning domain assessment implementation efforts.

For RQ3 and RQ4, institutional-characteristics data were collected through the College Navigator tool and the Carnegie Classification System lookup tool, and then I conducted ordinal logistic regression analysis to identify the relationships between the affective taxonomic level of each nursing program and institutional characteristics of each institution.

Description of Research Population

The participating institutions of the study were selected from the baccalaureate nursing program parent institutions accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the Commission on Collegiate Nursing Education (CCNE). There were 773 institutions credited by SACSCOC. Through a cross-comparison based on a list of the CCNE Accredited Programs published on the CCNE official website, there were 228 total participating institutions across 11 states which were identified. One institution from Texas was removed because no data for this institution was found through Stages 3 and 4 data collection. Therefore, there were 227 institutions selected for the study. Table 4 provides those institutions' demographic information across the 11 states:

Table 4

Demographic Data of the Participating Institutions

State	Count	%	Cumulative count	Cumulative %
Alabama	11	4.85	11	4.85
Florida	32	14.10	43	18.94
Georgia	21	9.25	64	28.19
Kentucky	15	6.61	79	34.80
Louisiana	11	4.85	90	39.65
Mississippi	7	3.08	97	42.73
North Carolina	25	11.01	122	53.74
South Carolina	16	7.05	138	60.79
Tennessee	24	10.57	162	71.37
Texas	43	18.94	205	90.31
Virginia	22	9.69	227	100.00
N =	227			

Description of Variables

The SLO statements of each individual participating institution served as the original data for the study, which were collected from the institutions' official websites. There were typically two types of nursing baccalaureate programs: prelicensure track and postlicensure track. The prelicensure track included the regular Bachelor of Science in nursing (BSN), BSN as the second degree, and accelerated BSN, preparing students for entry into nursing profession and eligibility to apply for licensure as a registered nurse (RN). The postlicensure track was usually designed for students who had already been licensed as RNs but needed to earn bachelor's degrees (RN to BSN) and these programs might also have offered online options. Each institution was expected to have one set of SLO statements. Most institutions' prelicensure and postlicensure BSN programs shared the same SLOs. However, six institutions' nursing programs had two sets of

SLO statements for the prelicensure and postlicensure BSN programs. To ensure each individual participating institution only had one set of SLO statements, the SLO statements of the prelicensure and postlicensure BSN programs were combined into one set for each of these six institutions. There were five institutions whose SLO statements were unable to be found from their official websites. A total of 32 statements were excluded in data collection as they were not SLOs (these will be further discussed in Chapter 5). Table 5 provides the descriptive statistics for total SLO statements overall and across the 11 states. In total, 1,856 SLO statements were collected from 227 institutions. On average each institutional program had just over eight SLO statements.

Table 5

Descriptive Statistics: SLO Statements Across States

State	*n* SLO	*n* institutions	*M* (SD)	*Mdn* (IQR)
Total	1,856	227	8.18 (3.25)	8 (4)
Alabama	99	11	9.00 (1.95)	9 (2)
Florida	266	32	8.31 (3.47)	8 (3.75)
Georgia	180	21	8.57 (2.18)	9 (1.5)
Kentucky	112	15	7.47 (3.44)	7(4)
Louisiana	78	11	7.09 (3.08)	7 (3)
Mississippi	51	7	7.29 (3.77)	9 (5)
North Carolina	217	25	8.68 (2.61)	9 (4)
South Carolina	121	16	7.56 (4.27)	7 (4.75)
Tennessee	203	24	8.46 (3.45)	9 (4)
Texas	349	43	8.12 (3.67)	8 (2)
Virginia	180	22	8.18 (3.28)	8 (2.5)

Description for Institutional Characteristics—From the College Navigator

Through the online College Navigator tool, the institutional characteristics data were collected. Thirteen characteristics were collected. A summary of the characteristics is presented in Table 6.

Table 6

Descriptive Statistics: Institutional Characteristics-1 (N = 227)

Institutional characteristic		*n* (%)
Institution type	4-Year private For-Profit	5 (2.2)
	4-Year private Non-Profit	97 (42.7)
	4-Year public	125 (55.1)
Degree Award-Level	Bachelor	19 (8.4)
	Master	55 (24.2)
	Doctoral	153 (67.4)
Campus Setting	Rural	9 (4.0)
	Town	53 (23.4)
	Suburb-Small	7 (3.1)
	Suburb-Mid	5(2.2)
	Suburb-Large	21 (9.3)
	City-Small	38(16.7)
	City-Mid	47(20.7)
	City-Large	47(20.7)
Campus Housing Availability	Yes	25(11.0)
	No	202(89.0)

The four institutional characteristics included in Table 3 were categorical variables. Table 6 reports that more than half of institutions were four-year public institutions and 42.7% were 4-year, private institutions. Five institutions were for-profit private. The statistics in Table 3 indicate there were three types of degree award-levels: bachelor, master, and doctoral. There were 153 institutions, accounting for 67.4%, that awarded doctoral degrees as the highest award degree level.

There were 12 categories that described campus setting. Rural-distance and rural-fringe were combined into one "rural" category, as there were only three "rural-fringe" institutions. Similarly, town-distant, town-fringe, and town-remote were combine into one "town" category. Therefore, there were eight types of campus settings after levels of the variable were recoded.

The information regarding whether an institution offered housing showed that 202 institutions provided housing, which accounted for 89% of the total participating institutions. Student-faculty ratio was one of the institutional characteristics that represented the number of students compared to the number of faculty members at an institution. Table 6 indicates that the overall average student-faculty ratio was 15 to 1 and the median ratio was also 15 to 1. Two institutions did not share their student-faculty ratios. The remaining eight institutional characteristics were interval variables and are reported in Table 7.

Table 7

Descriptive Statistics: Institutional Characteristics-2 (N = 227)

Institutional Characteristic	n*	*M* (SD)	*Mdn* (IQR)
S-F ratio	2	15.07 (4.42)	15 (6)
Student population	2	11,565 (14,142)	5,738 (14,928)
Out-of-state tuition	8	41,694 (11,392)	39,920 (13,472)
Net Price	11	17,793 (7,434)	17,032 (9,114)
2022 Applicants	28	9,569 (12,836)	4,802 (9,436)
Admission Rate	29	0.276 (0.118)	0.26 (0.143)
Retention Rate	24	0.719 (0.114)	0.71 (0.15)
Overall Graduation Rate	11	0.532 (0.15)	0.52 (0.2)
Cohort Default Rate	2	0.062 (0.033)	0.06 (0.046)

Note. n* represents the missing values

Table 7 reports that the overall average student population was 11,565, however, the median was 5,738. Two institutions' student populations were not listed.

Out-of-state tuition refers to the tuition rate that students pay for a college or university that is located outside their own states of residence. Institutions usually offer two options: on-campus and off-campus. For this study, the off-campus option was selected because the majority of RN to BSN programs are delivered online. Table 7 provides the overall average out-state tuition rate, which was $41,694 and the median was $39,920. There were eight institutions which did not provide their out-of-state tuition.

The College Navigator listed net price as an indicator, referring to the actual cost that a student needs to pay in a year to cover all education expenses. Table 7 shows that the overall average net price was $17,544 and the median was $17,032. Eleven institutions did not share information regarding their net prices.

Applicants refer to the number of total applicants who applied for admission to an institution. Table 7 shows the overall average applicants in 2022 was 9,569 and the median was 4,802. There were 28 institutions which had no admission information publicly available.

Admission rate signifies the percentage of accepted student applicants to the institution. Table 7 illustrates that the overall average admission rate was 27.6%, and the median was 26%. There were 29 institutions which did not provide admission rate data.

Retention rate specifically refers to the percentage of the first-time, first-year undergraduate students who remain at the institution from their initial fall term of entry and reregister for coursework in the next, successive term. The College Navigator provided full-time and part-time student retention rate. For this research, the full-time student retention rate was selected. Table 7 indicates the descriptive statistics for all participating institutions. There were 24 institutions which did not provide their retention rates. The average retention rate was 71.9%, and the median was 71.0%.

Overall graduation rate was shown as the percentage of students as full-time, first-time degree- or certificate-seeking students who started and completed their studies at the same institution within a certain timeframe. There were 11 institutions which failed to share their overall graduation rates. The average overall graduation rate was 53.2%, and the median was 52.0%.

According to the data provided by the U.S. Department of Education, cohort default rate refers to "the percentage of a school's borrowers who entered repayment on Direct Loan Program loans during a federal fiscal year (October 1–September 30) and defaulted before the end of the second following fiscal year" (Federal Student Aid, 2022, para. 1). Institutions should implement default management interventions to reduce the cohort default rate, aiming to lower student loan default risk for institutions and students (Federal Student Aid, 2021). Table 7 shows that the average cohort default rate was 6.2%, and the median was 6.0%. Two institutions did not share their cohort default rate data.

There were several characteristics listed on the College Navigator website, yet which have been excluded from this study, including financial aid, enrollment, outcome measures, programs/majors, servicemembers and veterans, varsity athletic teams, campus security and safety. The data were not collected because firstly, some were not closely associated with this study; and secondly, these characteristic data were either missing or wildly divergent in many instances.

Description for Institutional Characteristics—From the Carnegie Classification System

Through the online Carnegie Classification Lookup tool, the institutional basic classification data were collected. There were 36 detailed basic classifications that defined higher

education institutions in the Carnegie Classification System. The classifications were recoded into eight broader categories due to small "ns," as shown in Table 8.

Table 8

Recoded Carnegie Classifications

Recoded Carnegie classification	Definition / combined basic classifications
Bachelor's	Combined B with art/science focus, diverse fields, & mixed B/A colleges
Doctorate R1	University with very high research activity
Doctorate R2	University with high research activity
Doctorate/Professional	Award at least 20 research/scholarship doctoral degrees
Master's M1	Institutions award at least 200 master's degrees
Master's M2	Institutions award at least 100 but less than 200 master's degrees
Master's M3	Institutions award at least 50 but less than 100 master's degrees
Special Focus	Institutions with a special focus with concentrations of at least 80% of undergraduate and graduate degrees

Note. D = Doctoral, M = Master's, B = Baccalaureate, A = Associate's

The descriptive statistics of the Carnegie recoded categories are displayed in the following Table 9.

Table 9

Descriptive Statistics: Recoded Carnegie Categories (N = 227)

Recoded Carnegie classification	*n* (%)
Bachelor's	41(18.1)
Doctorate R1	32(14.1)
Doctorate R2	26(11.5)
Doctorate/Professional	45(19.8)
Master's M1	36(15.9)
Master's M2	23(10.1)
Master's M3	11(4.9)
Special Focus	13(5.7)

Description for Additional Institutional Characteristics—from SACSCOC Accredited & Candidate List

SACSCOC's "Last Reaffirmation" (Last Reaf) was also considered as an additional institutional characteristic for this study. Every 10 years, SACSCOC-accredited higher education institutions must again demonstrate their compliance with the SACSCOC standards, policies, and procedures through a process known as reaffirmation. Last Reaf refers to the year when the most recent review was enacted for a reaffirmation purpose (including off-site review and subsequent on-site review leading to reaffirmation). The Last Reaf data were collected because the last reaffirmation data might have impacted the SLO assessment practices, since SACSCOC issued the *2018 Edition of the Principles of Accreditation: Foundation for Quality Enhancement* and required institutions accredited by SACSCOC to comply with the updated standards. Institutions have had and will have until their next reaffirmation (post 2018) to comply with the update standards and principles. Table 10 shows the information of their last affirmation.

Table 10

Descriptive Statistics: Last Reaffirmation (N = 227)

Last Reaf	*n* (%)
Old SACSCOC Principles and Standards	119 (52.42)
Current SACSCOC Principles and Standards	108 (47.58)

Findings for Research Question 1

Once SLO statements collection was completed, each SLO statement was analyzed to determine whether it was an ALO. Using the action verbs listed in the Action Verbs for Affective Domain (see Appendix A) and for Cognitive Domain (see Appendix C), the SLO statements were compared. For example, one SLO statement was "Integrate professional nursing values in meeting current and emerging health needs in a dynamic, global society," according to

the Action Verbs for Affective Domain (see Appendix A), the action verb, “integrate,” fell into the affective domain. Additionally, “professional nursing values” were affective constructs; therefore, this SLO statement was defined as an ALO. Another example, “Demonstrate skills in using patient care technologies, information systems, and communication device,” according to the action verbs for affective domain and the action verbs for cognitive domain, the action verb, “demonstrate” fit both learning domains; however, “skills” exclusively described the cognitive attainment; hence, this SLO statement was identified as a cognitive learning outcome (CLO). If the action verbs of the collected SLO statements were not listed on the two lists (Appendices A & C), then the most similar words to substitute for the original one was selected. For example, one SLO statement was structured with an action verb, “adhere,” which was not included in either list, so a similar verb, “integrate,” was located, which had the similar meaning and fell into the affective domain. consequently, this SLO statement should be identified as an ALO.

Table 11 reports that 410 statements were identified as ALOs, accounting for 22.1% of the total SLOs; 768 SLO statements were defined as CLOs, which accounted for 41.4% of the total SLOs.

Table 11

Percentages of ALOs, CLOs, and Non-Affective-Non-Cognitive SLOs (n = 1,856)

Types of SLOs	*n* (%)
ALOs	410 (22.1)
CLOs	768 (41.4)
Non-ALOs-Non-CLOs	678 (36.5)

Table 12 also shows that Alabama institutions had the highest rate of incorporating ALOs into programs (27.3%) and Mississippi’s colleges and universities had the lowest rate (13.7%).

Table 12

Percentage of ALOs by States

State	Count of SLOS	ALOs *n* (%)	CLOs *n* (%)
Total	1856	406 (21.9)	768 (41.1)
Alabama	99	27 (27.3)	48 (48.5)
Florida	266	72 (27.1)	107 (40.2)
Georgia	180	41 (22.8)	72 (40.0)
Kentucky	112	21 (18.8)	45 (40.2)
Louisiana	78	17 (21.8)	28 (35.9)
Mississippi	51	7 (13.7)	30 (58.8)
North Carolina	217	46 (21.2)	75 (34.6)
South Carolina	121	20 (16.5)	54 (44.6)
Tennessee	203	38 (18.7)	89 (43.8)
Texas	349	76 (21.8)	150 (43.0)
Virginia	180	41 (22.8)	70 (38.9)

Overall, 22.1% of SLOs were structured to assess affective domain learning. There was relatively little variation across all institutions and even lower ranges within states. In fact, it seemed odd that each state was so tightly grouped; there were no outliers within any state grouping.

Out of the 227 institutions, 40 institutions' SLOs were not found to assess affective domain learning at all, and 187 institutions had incorporated ALOs into their assessment practices, accounting for 82.4% of the total participating institutions. The following table reports the statistics for the number of institutions which structured none, one, two, three, four, five, and more than five ALOs, respectively.

Table 13

Institutions Structured ALOs (N = 227)

Count of ALOs	*n* (%)
0 ALO	29 (12.8)
1 ALOs	68 (30.0)
2 ALOs	53 (23.3)
3 ALOs	40 (17.6)
4 ALOs	12 (5.3)
≥ 5 ALOs	11 (4.8)
Others	11 (4.8)

Note. "Others" included institutions whose SLOs were not found online, and institutions whose SLOs statements were unable to be defined as SLOs through analysis.

Table 14 illustrates the distribution across states with the median of 20% and the interquartile range (IQR) of 18.2%.

Table 14

Descriptive Statistics: ALO Percentage by State (N = 227)

State	n*	Mean (SD) %	Median (IQR) %
Total	9	0.219 (0.146)	0.200 (0.182)
Alabama	0	0.287 (0.138)	0.286 (0.232)
Florida	1	0.251 (0.151	0.25 (0.133)
Georgia	0	0.224 (0.164)	0.167 (0.243)
Kentucky	1	0.174 (0.100)	0.171 (0.14)
Louisiana	1	0.215 (0.185)	0.183 (0.18)
Mississippi	1	0.141 (0.042)	0.127 (0.078)
North Carolina	0	0.221 (0.128)	0.2 (0.093)
South Carolina	1	0.167 (0.128)	0.167 (0.278)
Tennessee	1	0.175 (0.145)	0.182 (0.131)
Texas	2	0.238 (0.144)	0.222 (0.192)
Virginia	1	0.231 (0.171)	0.222 (0.297)

Note. n* represents the missing values

Table 14 also shows the detailed statistics for each state, including the median and the Interquartile range to give a better understanding of the variance and ranges across states. Appendix D illustrates the overall distribution of this data. During the data analysis process, there were five institutions whose SLO statements were unable to be found from their official websites. Moreover, two institutions' (20) statements directly cited the *AACN Essentials of for Professional Nursing Practices* (AACN, 2008) to be their programmatic SLOs. One institution listed nine statements without a leading action verb; out of these nine statements, two were related to affective domain learning. Another institution's five statements were its program outputs instead of student learning outcomes. Yet, another different institution's SLO statements were structured without action verbs so that the SLOs were unable to be assessed. Therefore, these institutions' assessment practices were categorized as "Poor," according to the Affective Learning Level Scale (see Figure 5), because the failure of sharing SLOs publicly, inappropriately structuring SLOs alongside with zero identified ALOs all implied poor performance for assessment practices in affective domain. For the 678 SLO statements which were defined as neither ALOs nor CLOs, a further discussion will be conducted in Chapter 5.

Findings for Research Question 2

To address RQ2, each ALO statement assigned a score from "1" to "5" to respectively for every institution according to according to the Affective Learning Level Scale (see Figure 5) and the Action Verbs for Affective Domain (see Appendix A). For example, the action verb of the previously identified ALO, was "integrate," which fits the level of "organization" from the action verbs for affective domain; consequently, the affective score "4" was assigned to this SLO, according to the Affective Learning Level Scale (see Figure 5). Each assigned affective score of the ALO presents its Krathwohl's taxonomic level. This procedure fit into Maying's

(2021) qualitative content analysis methodologies, whereby levels from a preexisting rubric are used to score qualitative text that fits into predefined categories.

Table 15 shows the descriptive statistics of Krathwohl's taxonomic levels for all ALOs. Out of 227 total institutions, 40 institutions did not structure ALOs. The ALO median level was 3.5. Across all states, there was considerable variation. Table 15 provides evidence of the distribution. Appendix E illustrates that the Krathwohl's taxonomic level scores were not normally distributed.

Table 15

Descriptive Statistics: Overall Krathwohl's Taxonomic Level

State	n*	Median (IQR)
Total	40	3.50 (1.00)
Alabama	0	4.00 (1.00)
Florida	6	4.00 (0.875)
Georgia	3	4.00 (1.625)
Kentucky	3	4.00 (1.125)
Louisiana	3	4.00 (1.75)
Mississippi	1	3.75 (2.00)
North Carolina	2	3.50 (1.00)
South Carolina	5	3.00 (1.00)
Tennessee	6	3.00 (0.625)
Texas	5	3.00 (0.50)
Virginia	6	3.00 (0.75)

Note. n* represents the missing values

Development of the Taxonomy

To address research questions 3 and 4, results from RQ1 and RQ2 were used to develop the Song's affective learning taxonomy. There were three indices considered in the following order:

- 1st index: The maximum assigned Krathwohl taxonomic level score
- 2nd index: The number of ALO statements
- 3rd index: The median of the assigned Krathwohl taxonomic level scores

The maximum assigned Krathwohl taxonomic level score refers to the highest score among all assigned affective scores of an institution. The maximum assigned Krathwohl taxonomic level score was chosen as the first index to build the taxonomy because the level of affective learning was considered to directly indicate the required efforts and the degree of difficulty. The number of ALOs was considered as the second index because besides Krathwohl's taxonomic level, the number of ALOs also demonstrated the level of the institutional emphasis on affective learning. Finally, the median assigned Krathwohl taxonomic level score was selected to be the third index since the majority of median Krathwohl's taxonomic level scores for institutions were between 3.0 (Q1) and 4.0 (Q3), which indicated low variation. The three indices were demarcated as three levels: low (L), medium (M), and high (H), the detailed measures are shown in Table 16.

Table 16

Measures of Index Levels

Index level	Max affective score	Number of ALOs	Median affective scores
Low	1 or 2	1	> 0 and ≤ 3
Medium	3 or 4	2, 3	> 3 and ≤ 4
High	5	≥ 4	> 4

According to the measures of the three indexes, the "High," "Medium," or "Low" level for three indices respectively for each institution was determined. For example, one institution structured nine SLOs total. There were three SLOs which had been identified as ALOs and were scored as "5," "4," and "3," respectively. Based on the measures in Table 16, the Max Affective

Score is “5,” which indicated the level of “high;” the number of ALOs is “3,” Median level; and the Median Affective Score is “4,” median level. Another level was also created, which was labeled “Z,” referring to those institutions which had not structured any ALOs. Table 17 provides an overall summary of index levels.

Table 17

Summary for Discrete Variables: ALO Affective Score Level (N = 227)

Index level	*n* (%)
N=	227
Z	40 (17.6)
L	120 (52.9)
M	55 (24.2)
H	12 (0.05)

Note. Appendix F provides tabulated statistics for index level by state.

Based on the measures of index levels, Song’s affective taxonomy (see Table 18) was developed, which defined the levels of effort for assessing student learning in the affective domain at the institutional level. All the index levels which started with “H” or contained two “Hs” were classified as “Exemplary.” The taxonomic level of “Good” included those ALOs which first index level was “M,” and the second index level must have been “M” or better. The taxonomic level of “Average” refers to the ALOs which had as the first index level an “M,” but the second index level was an “L” or lower. There were eight index levels which could not logically exist (MMH, MLH, LHH, LHM, LMH, LMM, LLH, and LLM, as highlighted in grey), since it was impossible that the max score of all affective scores of an institution (1st index) would have been smaller than the median affective score (3rd index).

Table 18

Song's Affective Taxonomy

Taxonomic Level	Index Level	Max Affective Score			Number of ALOs			Median Affective Scores		
		H (5)	M (3or4)	L (1or2)	H (≥ 4)	M (2or3)	L (1)	H (> 4)	M >3, ≤4	L ≥1, ≤3
Exemplary	HHH ↖↖↖	↖			↖			↖		
	HHM ↖↖←	↖			↖				←	
	HHL ↖↖↙	↖			↖					↙
	HMH ↖←↖	↖				←		↖		
	HMM ↖←←	↖				←			←	
	HML ↖←↙	↖				←				↙
	HLH ↖↙↖	↖					↙	↖		
	HLM ↖↙←	↖					↙		←	
	HLL ↖↙↙	↖					↙			↙
Good	MHH ←↖↖		←		↖			↖		
	MHM ←↖←		←		↖				←	
	MHL ←↖↙		←		↖					↙
	MMH ←←↖		←			←		↖		
	MMM ←←←		←			←			←	
	MML ←←↙		←			←				↙
	MLH ←↙↖		←				↙	↖		
	MLM ←↙←		←				↙		←	
	MLL ←↙↙		←				↙			↙
Average	LHH ↙↖↖			↙	↖			↖		
	LHM ↙↖←			↙	↖				←	
	LHL ↙↖↙			↙	↖					↙
	LMH ↙←↖			↙		←		↖		
	LMM ↙←←			↙		←			←	
	LML ↙←↙			↙		←				↙
	LLH ↙↙↖			↙			↙	↖		
	LLM ↙↙←			↙			↙		←	
	LLL ↙↙↙			↙			↙			↙
Poor	SLOs not found / Inappropriate SLOs/ No ALOs									

The level of "Poor" was not defined through Song's affective taxonomy. Instead, as the previous sections discussed, the level of "Poor" defined institutions which had not structured any ALOs, institutions whose SLOs had been structured inappropriately and were impossible to be assessed, and institutions which failed to share their SLOs publicly. Therefore, there are four taxonomic levels in total that categorize institutions' assessment practices of incorporating ALOs, including Exemplary, Good, Average, and Poor.

Findings for Research Question 3

To address research question 3, each institution's taxonomic level was categorized according to the newly established Song's affective taxonomy. As the previously provided example illustrated, the three indices of the institution were "5," "3," and "4" in order, according to the measures of Song's affective taxonomy, the index level would then translate to "HMM," which indicated the Song's taxonomic level of this institution can be classified as "Exemplary." Table 19 shows the descriptive statistics of Song's taxonomic levels for the 227 institutions.

Through the online College Navigator tool, the institutional characteristics data were collected. There were 24 intuitions' whose characteristics data were unable to be fully collected; the missing data included out-of-state tuition, net price, admission, retention rate, overall graduation, outcome measure, and cohort default rate.

Table 19

Descriptive Statistics of Song's Taxonomic Levels (N = 227)

Song's taxonomic level	*n* (%)
Poor	40 (17.6)
Average	54 (23.8)
Good	63 (27.8)
Exemplary	70 (30.8)

Ordinal logistic regression was used to determine whether institutional characteristics were predictive of moving from lower Song's taxonomic levels to higher levels. For RQ3, institutional characteristics data included nominal and interval variables. The results of the logistic regression analysis revealed that no institutional characteristics other than "state" and "retention rate" were somewhat predictive. State was statistically insignificant (Z = 1.90, p = 0.06) overall however, and only three states, South Carolina *OR*=3.94 (95% CI: .94, 16.96); Tennessee, *OR*=3.18 (95% CI: .84, 12.04); and Virginia *OR*=2.77 (95% CI: .73, 10.47), within the group had positive odds ratios. Surprisingly, retention rate was the only statistically significant (Z = -2.31, p = 0.02), *OR*=0.06 (95% CI: .01, .66), institutional characteristic.

Additional tests were conducted to confirm a relationship between Song's taxonomic level and retention rate. Since those tests involved variable differentiation, insofar as retention rate was subsequently recategorized and used as a dependent variable, discussion of this analysis will be included after results of RQ4 in an additional findings section.

Findings for Research Question 4

Ordinal logistic regression using the Song's taxonomic level as dependent variable was conducted using Carnegie Classification System categories alongside any other categorical variable describing the institutions. For this analysis, no interval data were used. The results of this regression analysis indicated that nothing was statistically significant in terms of predicting exemplary practice as assessed by Song's affective taxonomy. However, there were two statistically insignificant results which might be of practical significance, the Carnegie Classification Doctorate/Professional (Z = -1.50, p = 0.13), *OR*=0.56 (95% CI: .26, 1.20); and Doctorate-R1 (Z = -1.39, p = 0.17), *OR*=0.55 (95% CI: .24, 1.28). In essence, Doctorate/Professional and Doctorate-R1 institutions assessed affective learning at lower Song's

taxonomic levels than all other categories of institutions. It bears mentioning that the Carnegie Classification system does not purport to judge affective domain learning.

Additional Findings

For further analysis, since retention rate had the only statistically significant relationship to the Song's taxonomic levels, retention rate was recategorized as a dependent variable. Moreover, three variables were further recategorized as independent: ALO percentage, Krathwohl's taxonomic level, and Song's taxonomic level. Retention rates were normally distributed (see Appendix G) therefore, parametric tests were appropriate for this additional investigation. Analysis of variance through Minitab's general linear model revealed that the only variable statistically significant F (2, 167) =3.98, p = 0.02, η^2 = 0.05, was the Song's taxonomic level. A follow-up one-way ANOVA revealed a statistically significant, F (3, 202) = 3.28, p = 0.02, η^2 =0.05, impact of Song's taxonomic level on retention rate. A follow-up Hsu multiple comparisons with the best (MCB) procedure indicated that the pairwise comparisons with the most significance were Poor vs. Exemplary, t (df) = -2.62, p = 0.01, and Good vs. Exemplary, t (df) = -2.47, P = 0.02. See Figure 1 for detailed graphical comparisons and Figure 2 displays a Boxplot of retention rate by Song's taxonomic levels.

Additionally, investigating all factors which might have impacted retention rate through Minitab's general linear model revealed four institutional characteristic variables, plus Song's taxonomic level (see Appendix H for a table) with statistically significant impacts on student retention rate.

Finally, after data analysis, there was no empirical evidence which substantiated any inferential conclusion of civic-mindedness serving as a cohesive force that ensures legitimacy to

operate as a process dynamically; therefore, the conceptual framework has been re-adjusted (see Appendix I) by removing civic-mindedness, to better support the findings.

Figure 9

Hsu Simultaneous 95% Confidence Intervals

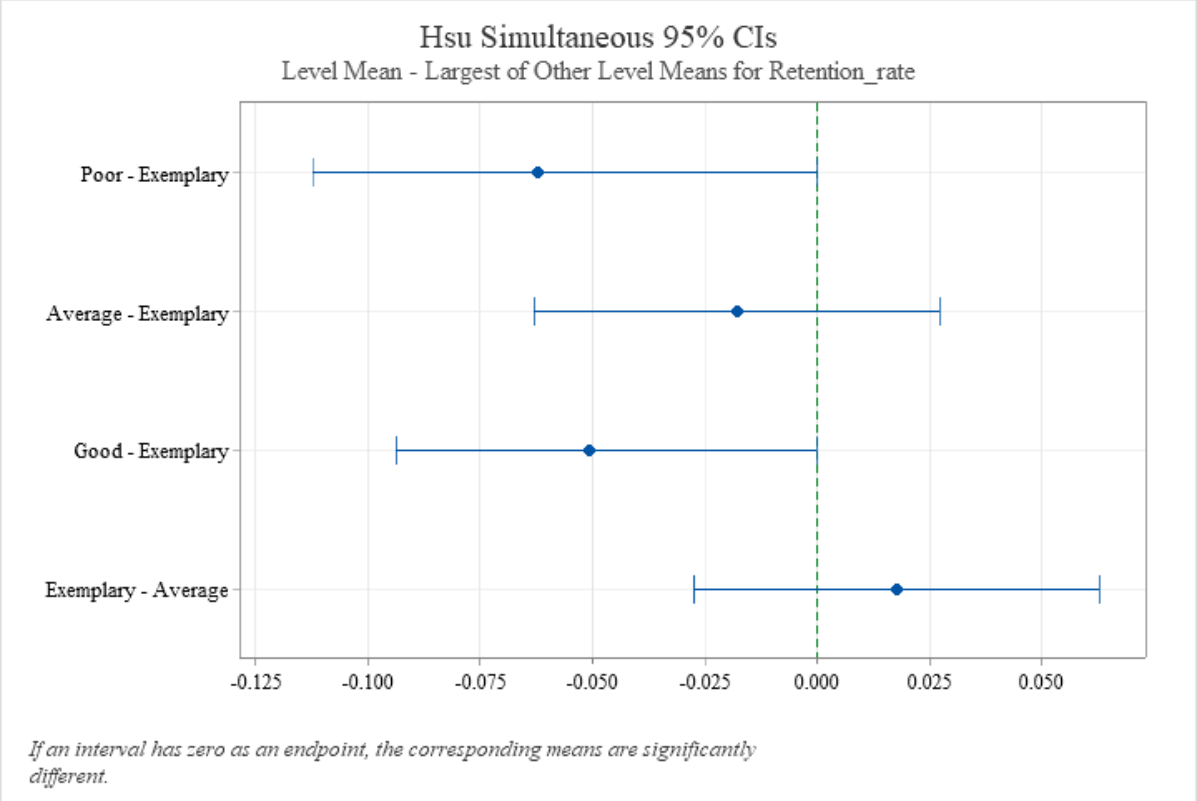
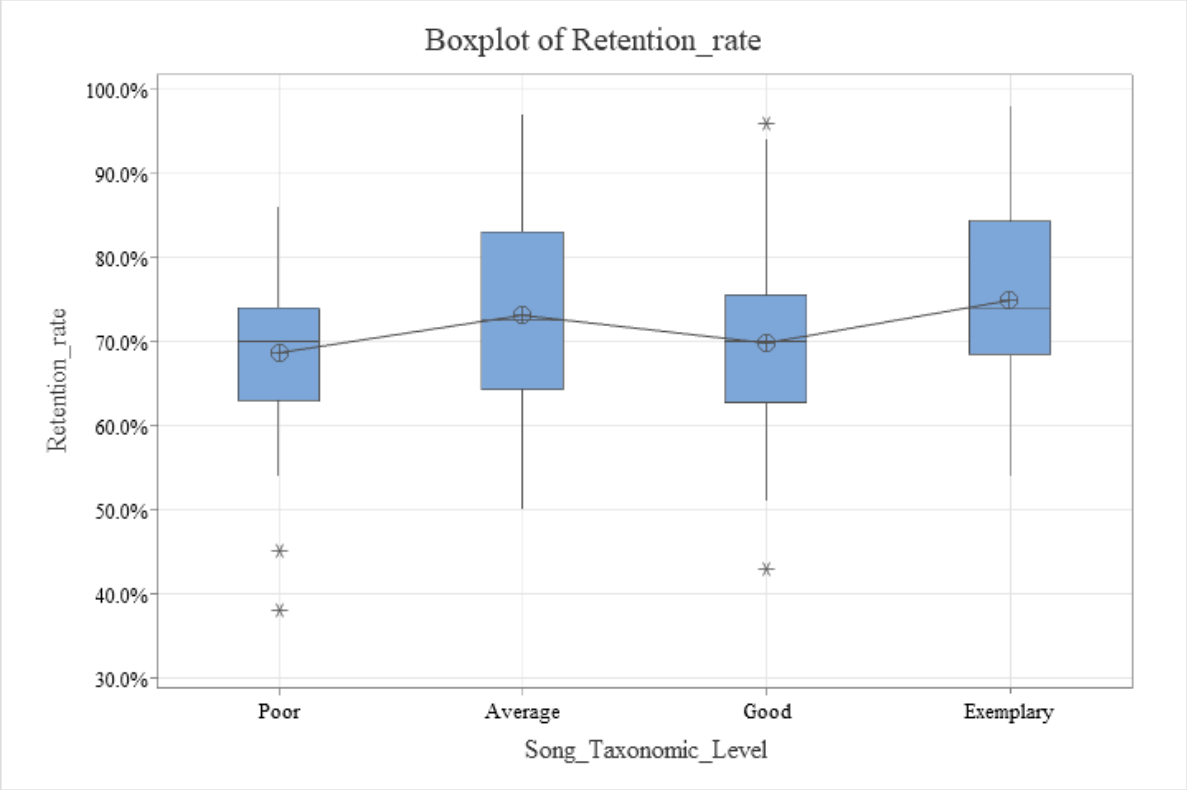


Figure 10

Boxplot of Retention Rate by Song's Taxonomic levels



Summary

Approximately 20% of the 1,856 learning outcomes assessed were structured for affective-domain learning. Typically, the Krathwohl's taxonomic level was between "valuing" and "organizing" (MD=3.5). No interval or categorical institutional characteristics were significantly predictive of exemplary practices for affective-domain learning assessment. There were some practical differences across states. Carnegie Classification was not significantly predictive of exemplary practices for affective-domain learning assessment, however, there were practical differences (D/P, R1). There was no relationship between the Song's taxonomic levels and last reaffirmation, $\chi^2 = 3.76$, $df = 3$, $p = 0.29$. Unexpectedly, analysis revealed a statistically

significant, F (3, 202) = 3.28, p = 0.02, η^2 =0.05, relationship between retention rate and exemplary ALO assessment practices as defined by the Song's affective taxonomy.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this transformative mixed-methods study was to examine the current practices for assessing affective learning outcomes used among undergraduate nursing programs accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) which were also accredited at the programmatic level by the Commission on Collegiate Nursing Education (CCNE). This chapter includes discussion regarding the processes of identifying affective learning outcomes (ALOs), interpreting the findings, suggesting improvements to implementing ALO assessment practices, and recommending ideas for future research.

This study provides a set of guidelines of best practices for implementing ALOs assessment, which serves as a foundation for further investigations focusing on how those exemplars implemented ALOs assessment as well as how their efforts may be impacting students and their intended professions. The examples of these participating nursing programs implementing and assessing ALOs can also be transferred and applied to general education learning outcomes.

Discussion of Findings in Relation to Past Literature

This transformative mixed methods study was divided into four stages. During stage 1, the qualitative content analysis methodologies were applied to collect student learning outcome (SLO) statements as well as delineate affective learning outcomes (ALOs) among them, in order to answer the first research question, to what extent have undergraduate nursing programs accredited by SACSCOC and CCNE incorporated the affective learning domain into their learning and assessment practices.

The second stage of the research used the Affective Learning Level Scale (see Figure 5) and publicly accessible action-verb lists for both affective and cognitive domains of learning (see Appendices A and C); subsequently a fused analysis was applied to quantitize the qualitative data (ALO statements) identified from stage 1. As results of stage 2, each identified ALO was assigned a score from "1" to "5," which represented the Krathwohl's taxonomic level for the ALO; that process of assigning scores to sets of fused data allied with methodologies included in Mayring's (2021) qualitative content analysis. These steps aimed to answer the second research question, at which of Krathwohl's affective taxonomic levels are affective domain learning outcomes most typically assessed in those programs. Subsequently, three indices were established across institutions (maximum affective score, count of ALOs, and the median affective score) and then were taken in combination to establish Song's affective taxonomy, categorizing the efforts of each institution's practices of implementing ALO assessment into four levels: exemplary, good, average, and poor.

Stage three was conducted to investigate which institutional characteristics (collected from the College Navigator) were related to the predictivity of exemplary ALO assessment (research question 3). Thirteen institutional characteristics were collected from the online College Navigator tool and integrated into the study as independent variables. A quantitative analysis (specifically ordinal logistic regression testing) was applied to determine if there were statistically significant predictors for advancing through the Song taxonomic levels (outcome variable levels were ordered from poor, average, good, up to exemplary) of practices for implementing ALO assessment.

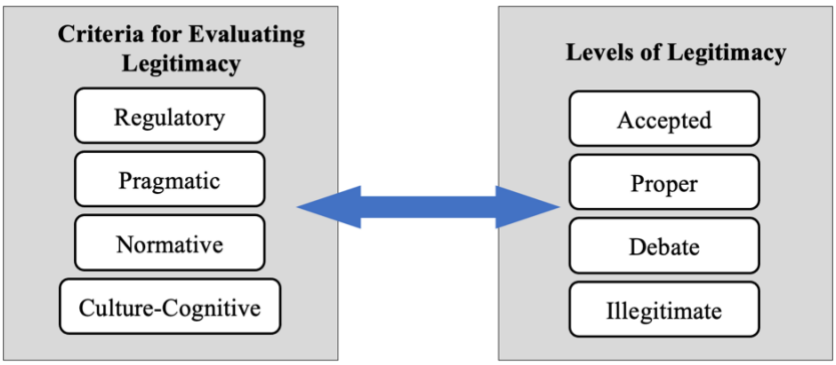
The fourth stage conducted several Chi-square analyses and an ordinal logistic regression test to determine any significant relationships between Carnegie Classifications for institutions

and Song's affective taxonomic levels (research question 4). Moreover, another variable, SACSCOC last reaffirmation year, was collected and included as an additional institutional characteristic for this research. The third and fourth stages derived findings that illustrated the current ALO assessment practices, highlighted the best practices, and identified some practices that needed improvement.

The findings of the four research questions not only delineated the current status of the participating institutions implementing ALO assessment practices but also indicated the efforts of institutions toward legitimizing their respective programs through complying with accreditation standards and guidelines. The conceptual framework for this study incorporated criteria for organizational legitimacy from Deephouse et al. (2017). They sat forth four criteria to achieving legitimacy, which include in order cultural-cognitive, normative, pragmatic, and regulatory. They also defined achievement of organizational legitimacy as having passed through the following four stages: illegitimate, debated, proper, and accepted (see Figure 11).

Figure 11

Criteria for Legitimacy & Levels of Legitimacy



Note. Adapted from "Organizational legitimacy: Six key questions," by D. L. Deephouse, J. Bundy, L. P. Tost, and M. C. Suchman, 2017, *The SAGE handbook of organizational institutionalism* (2nd ed., pp. 27-54).

The analysis of stage 1 concluded that one fifth of the current SLOs for the participating programs were ALOs. However, the analysis also discovered that ALO percentage was not normally distributed nor were any of the 11 represented states' ALO percentages normally distributed. In addition, through a QCA, a majority of institutions have started or already incorporated ALO assessment into their educational practices. The extent to which education institutions are assessing SLOs achieved the "proper" legitimization level for applying the criterion of "pragmatic*"* legitimization set forth by Deephouse et al. (2017). Therefore, the conceptual framework for this study evidenced its appropriateness; this will be discussed later in the implications section.

During research stage 2, descriptive statistical analyses revealed that generally, participating programs' ALOs fell somewhere between the third Krathwohl taxonomic level "valuing" and the fourth level "organization." It may be understood that the current ALO assessment practices are taking place at this level, as nursing graduates are required to possess professionalism and respect the increased complexity based on the AACN nursing essentials. The range between "valuing" to "organization" seemed to be an acceptable level for the majority of institutions, as it could help programs effectively prepare baccalaureate students for entering the nursing profession yet was not too challenging for organizational personnel insofar as structuring and assessing ALOs at higher levels might have been perceived.

Through an analysis using Song's affective taxonomy, half of the institutions were found to have implemented ALO assessment practices effectively and nearly a quarter of the institutions have just reached a tolerable level for implementing ALO assessment practices. These data converge with and compliment the legitimacy discussion reflected in Figure 1. This also lends credibility to the conceptual framework of this study whereas the majority of

institutions had already implemented “proper” assessment of ALOs in a “pragmatic” sense (Deephouse et al., 2017, p. 27). Additionally, student retention rate was identified as an institutional characteristic that significantly impacted the exemplary ALO assessment practices; in other words, a lower student retention rate might have predicted the lower taxonomic levels of ALO assessment practices, or vice versa. Based on this researcher’s professional experiences, if institutions made more efforts toward cultivating students’ affective competence, then we might postulate that the staff doing the work would be perceived as more caring; caring professionals may in turn establish meaningful relationships with students. Intuitively, meaningful relationships may be related to establishing a heightened sense of belonging, which has recently been empirically connected (Pedler et al., 2022) to increased student retention. Additional research examining the linkages between—and complimentary impacts from—each of these constructs is warranted.

The fourth research question investigated the relationship between the Carnegie Classifications and the exemplary ALO assessment practices according to Song’s affective taxonomy. The results of Chi-Squared tests indicated that an institution’s Carnegie classification was not significantly related to the level of its ALO assessment practices but here also, further studies with larger groups (e.g., including other regional accreditors) may be warranted. Therefore, to extend this finding, it can be understood that implementing ALO assessments might have actually depended on individual educational practitioners’ efforts instead of being impacted by the institution’s reputations and resources. From an abductively logical standpoint, this finding may also somewhat strengthen the unexpected findings of RQ3, in that caring professionals may have made the greatest impacts, individually.

Three Types of Inappropriately Structured SLOs

As Chapter 4 mentioned, 678 SLO statements were identified that could be classified as neither affective nor cognitive SLOs. Based on the definitions of Bloom's cognitive taxonomy and Krathwohl's affective taxonomy, these 678 SLO statements were categorized into additional three classifications of SLOs. The first type included the SLOs with an effective action verb leading cognitive content, which accounted for 9.6% of the total SLOs. For example, one SLO statement was "Integrate knowledge and skills in leadership, quality improvement, and safety in providing high quality health care." The action verb "integrate," fell into the level of "organization" of the affective domain taxonomy, according to the action verbs for affective domain (see Appendix A); however, the contents behind the action verb were "knowledge and skills," which are widely considered to be cognitive constructs. Therefore, this type of SLO statement was not categorized as ALOs.

The second type included the SLOs which were structured with a cognitive action verb leading affective SLO content. Only 15 SLO statements were categorized as this type, accounting for less than 1% of the total SLOs. For example, "articulate the value of lifelong learning within the nursing profession and develops a plan for continued education and educational mobility," was led by the action verb "articulate," which fell into the level of "understanding" in the cognitive domain, according to Bloom's taxonomy (see Figure 1) and the action verbs for cognitive domain (see Appendix C). However, the contents, "value of lifelong learning" referred to affective constructs. Therefore, this type of SLOs was identified as neither an affective nor a cognitive outcome statement.

The third type was comprised of the SLOs which were led by either affective or cognitive action verbs and contained a mixture of both affective and cognitive SLO content, accounting for

23.1% of the total SLOs. For example, the SLO statement, “integrate knowledge, skills, and values from liberal studies with nursing science to provide safe, effective nursing care,” was led by an effective action verb, “integrate,” and included cognitive contents, “knowledge, skills” as well as affective contents, “values…” Another example, “demonstrate effective communication and collaboration (leadership, management) within a multidisciplinary team to deliver care that is patient-centered and evidenced-based,” was led by the action verb “demonstrate,” which fell into both affective and cognitive domains. However, “communication and collaboration” involved knowledge, skills, values, and behaviors that students should possess and develop, so that it was difficult to define whether the contents should fit into the affective or the cognitive domain. Similarly challenging, would be the assessment of such convoluted student learning outcome statements.

These SLOs regardless of whether affective action verbs led cognitive contents or vice versa, could be defined as SLOs which had been structured inappropriately. The mixture of affective and cognitive contents within an SLO might create more challenges to determine appropriate action verbs, as each level of every learning domain has its corresponding action verb-set. With inappropriate action verb options, instructors might develop ineffective assessment plans or select inappropriate assessment tools which might lead to SLOs being unclear or immeasurable, or perhaps these might be negatively impacting achievement of program goals. For example, some assessment tools and instruments such as quizzes or exams could be used to measure the SLO, “understand the value of lifelong learning…;” however, students who were able to well demonstrate their understandings of what it meant to value rote learning might not fully possess this value. Therefore, the results of assessing those inappropriately structured SLOs might not accurately reflect the programs’ intended goals.

Inappropriate ALO Assessment Implementation

In fact, the 678 inappropriately structured SLOs, accounting for 36.5% of the total SLOs, were related to affective components in different ways. Furthermore, one institution's nine statements were not structured with leading action verbs, even though two of the statements might be considered as affective-related.

Some SLO statements seemed to read more like mission statements for the respective BSN programs—even for the entire nursing school—instead of representing a single SLO, for example, "provide compassionate, competent, holistic nursing care across the lifespan," presented a final goal for a student completing the program yet failed to describe measurable knowledge, skills, values, abilities, or mindset changes that a student should demonstrate upon the completion of said program. So, these types of statements were not classified as SLOs since they were neither demonstrable nor measurable. Kuh et al. (2014) also emphasized that articulated learning goals are critical for determining what students know and what they can do. Therefore, as Kennedy (2006) stressed, SLOs must be demonstrable, observable, and measurable through setting forth with varying degrees of specificity learning goals.

Additionally, the findings indicated that assessment practitioners who structured this type of SLO might themselves be challenged by implementing ALO assessment practices, as they might have limited cognitive abilities to distinguish between cognition and affect; for even though they seemed to demonstrate awareness and willingness of implementing ALO assessment, the efforts fell short according to this study's criteria. This further substantiates the complex intricacies and potential missteps through the process of legitimizing the assessment of learning in the affective domain. These findings indicate that organizationally, the level of "culture-cognitive," had not been surpassed, according to the legitimization criteria (Deephouse

et al., 2017) had established; until achieving success at that level of "culture-cognitive," the organization's affective domain learning outcome statements would unfortunately fall into the "illegitimate" level of legitimacy.

Challenges of Defining Affective Contents

During the data-fusion analytical process, some SLOs were difficult to be defined as they included both affective and cognitive contents. In fact, it was extremely challenging to determine whether the contents were exclusively affective or cognitive. Krathwohl et al. (1964) pointed out nearly all cognitive learning objectives contain affective components; in other words, it is nearly impossible separate affective and cognitive contents within an SLO. For example, "leadership" was listed as a common learning outcome for nursing graduates. Northouse (2001) defined that leadership refers to "a process whereby an individual influences a group of individuals to achieve a common goal" (p. 6). Based on this definition, leadership should be a competency, including knowledge, skills, values, behaviors, attitudes, and mindsets, which crosses both affective and cognitive learning domains. Other similar examples, such as "collaboration," "communication," "management," and "decision-making," can be seen as comprehensive processes requiring competencies which are made up of a mixture of cognitive components as well as affective elements and cannot be simply described as a skill or knowledge. The type of competencies containing both affective and cognitive components might create more challenges for assessment practitioners in terms of structuring and ultimately assessing the SLOs. To more effectively structure SLOs, institutions and programs may need to increase faculty involvement. Kuh et al. (2014) suggested that more faculty involvement could help institutions obtain more information regarding which outcomes are being addressed sufficiently in terms of breadth and depth and which SLOs need more attention.

Compliance With Accreditors' Standards

The findings of the study demonstrated different levels of compliance with the accreditors' principles and standards. Regional accreditors' principles are regulatory, referring to the regulations with which institutions must comply. The SACSCOC Resource Manual (2020) 8.1 specifies that publishing student learning outcomes means doing so in a way that is accessible to the general public and not behind an internet firewall; the standard is highly prescriptive. While collecting SLO-statements data, only five institutions had SLO statements which were undiscoverable, accounting for 2.2% of the total participating institutions. This finding demonstrated that nearly all institutions, even the institutions which had mistakenly used program outputs as SLOs and missed action verbs, have complied with the updated SACSCOC's principles regarding public dissemination of SLOs. This finding also indicated that creating and publishing SLOs have achieved legitimization at the highest level, "accepted," for applying the criterion, "regulatory" (Deephouse et al., 2017, p. 27).

The literature review of this study had delineated, that as a special accreditor for nursing programs, the American Association of College of Nursing (AACN) developed AACN nursing essentials outlining the necessary curriculum contents and guiding nursing programs as they structured SLOs. Therefore, the essentials often serve as a framework for nursing programs and nursing accreditors, however, those essentials should not be used directly as replacements for SLOs at the programmatic level. Within the nine nursing essentials, the eighth essential refers to professionalism and professional values and the ninth expects nursing graduates to respect the variations of care and increased complexity (AACN, 2008), which can be defined as affective domain learning constructs. The 187 institutions which have already incorporated ALOs

assessment into their educational practices served as evidence for the institutions' efforts towards the compliance with specialized accreditation standards.

For the 678 non-affective-non-cognitive SLOs, even though they were structured inappropriately, they contained affective components. These inappropriately structured SLOs illustrated institutions' attempts to respond to the AACN nursing essentials regarding the specialized accreditor's requests for affective competence. Additionally, a few institutions' statements were ranked as "poor" at Song's taxonomic level, such as one institution had structured eight SLO statements without any leading action verbs, but there were two of those statements which were securely nested into the affective domain based on qualitative content analysis. Another example was of the two institutions which directly cited the AACN nursing essentials as their SLOs. These inappropriate SLO assessment implementation practices still demonstrated their efforts toward assessing affective domain learning as well as implied a positive organizational mindset regarding the compliance with the specialized accreditors' standards. Conversely, the 40 institutions whose SLO statements were unable to be defined as ALOs might need to make additional efforts on the compliance of AACN nursing essentials. These cases demonstrated that some nursing programs had serious issues for following the nursing accreditor's guidelines. It was likely not coincidental that those forty institutions collectively, represented the lowest average retention rate, $\chi^2(3, N = 227) = 5.803$, $p = .17$—though statistically insignificant—of any other grouping in this study. This also illustrated that legitimization of affective domain learning assessment has not yet achieved the greatest possible level.

Conclusion to the Discussion and Interpretation of Findings

In sum, the findings of the study demonstrated that a majority of participating institutions have been made aware of the need to incorporate ALO assessment into their educational practices regardless of whether motivation was due to the recognition of the importance of affective domain learning or just for the accreditation compliance purposes. Therefore, over half of participating programs have implemented ALO assessment at the exemplary level of the Song Taxonomy, which indicated that these exemplar institutions already have the capacity for effectively conducting ALO assessment practices. The current status of combined SLO and ALO assessment practices also implied that accreditors and institutions need to improve organizational competence for effectively assessing student learning, particularly in the affective domain.

Implications for Practice

The findings have implications for accreditors reexamining the guidelines, principles, and standards in order to maximize quality or optimize the current practices and procedures across their recognized higher education institutions. Additionally, the findings also have implications for the nursing programs accredited by other specialized accreditors and even for other academic programs (including general education) and co-curricular assessment efforts which may consider implementing the best practices to improve effectiveness of assessing dispositional learning outcomes.

Implications for Accreditors

To help academic programs promote the accreditation compliance, specialized accreditors might need to make more efforts on providing supportive resources. For example, as mentioned in the previous sections, the eighth AACN nursing essential specifies, “professionalism and the inherent values of altruism, autonomy, human dignity, integrity, and

social justice are fundamental to the discipline of nursing" (AACN, 2008, p. 4), so it falls into the affective domain. The Essentials of Baccalaureate Education provides definitions for each term as well as sample contents to help programs directors better understand and implement this particular essential (AACN, 2008). Since literature indicated that it is more challenging to structure and assess ALOs, additional detailed guidelines are needed to articulate assessment instruments, and assessment plans might be helpful, particularly for the eighth and ninth nursing essentials. Other supportive resources might include online discussion forums that allow professionals to communicate and accept feedback from institutions and programs, sharing exemplary ALO assessment practices during accreditation processes, and finally providing accreditation consultant services.

The accreditors' role is to serve as a critical gatekeeper for ensuring quality and retaining eligibility of their accredited higher education institutions and programs; as Kumar et al. (2020) stressed, accreditation is a powerful tool to enhance excellence and quality. Therefore, the goals of accreditors should be consistent with institutions' goals and programs' expectations. The efforts that accreditors have made could also promote the processes of organizational legitimacy through supporting programs and institutions who have already addressed the issues of interpreting accreditation principles and standards with respect to assessing affective domain student learning outcomes. Recognition or awards of exemplary practices might deserve consideration, particularly from the specialized accreditors who are actively promoting teaching and assessing to the affective learning domain.

Implications for Institutions and Programs

Under federal law, accreditors are required to formulate standards to measure student outcomes, particularly student retention rate and completion rate (Flores, 2018). SACSCOC

requires institutions to concentrate their efforts toward accurately evaluating and reporting institutional retention rate as well as continually improving said institutional retention rate. In other words, student retention is a key performance indicator of both institutional and students' success undergirding the entire accreditation system. This study includes the first empirical evidence to substantiate a link between affective domain learning and an increased student retention rate. This specific finding could also be used to support institutions and programs' commitment towards promoting affective domain learning for improving student success, not only for program legitimization purposes but also to add an additional institutional quality assurance metric. As the National Institute for Learning Outcomes Assessment team recommended, institutions need to purposefully focus on more effectively using SLO assessment results to improve teaching and learning (Gannon-Slater et al., 2014).

Additionally, institutional commitment dictates that more resources should be allocated to support professional development, particularly to develop assessment practitioners' cognitive knowledge and skills focusing on ALO assessment practices. Moreover, reinforcing communications with accreditors might also better help institutions and programs more accurately interpret accreditation regulations and standards. Following this recommendation, the efforts that institutions and programs make could determine the future levels of affective-domain-learning legitimacy.

Recommendations for Future Research

The findings of the study explored the current status of ALO assessment practices across undergraduate nursing programs accredited by SACSCOC and CCNE; most significantly, analysis revealed the positive relationship between student retention and affective domain learning. However, due to the limitations of this study's focus, no understanding of how those

exemplars implementation or assessment practices had enabled them to achieve the exemplary level on the Song's affective taxonomy. A future study could include interviews with accreditors, program directors, faculty members, nursing students, graduates who already entered workplaces, and perhaps employers who have hired the graduates. Obtaining perceptions regarding affective domain learning from different perspectives, including accreditation agencies, education institutions, and society at large, might help institutions and programs implement best practices for assessing student learning outcomes and therefore promote student retention. In future studies such as recommended, institutions could locate missing links between the current assessment practices and the accreditation practices. They may become more aware of the options and perceptions from accreditors and society, and therefore, close the legitimization loop as the conceptual framework for this study proposed (see Figure 3). The findings of any future study might indicate the efforts of institutions infusing civic-mindedness as dispositional outcomes into their educational practices and eventually, may benefit the ALO legitimization process.

Additionally, future researchers may consider focusing on ALO assessment practices of programs or institutions accredited by other regional and specialized accreditors. Similar ALO research across different regional and specialized accreditors' institutions could provide a more balanced overview regarding SLO/ALO assessment practices nationwide. The findings of such future research efforts may serve as references for policymakers and regulatory organizations to improve policies, regulations, and standards, in order to meet the increased complexities of an increasingly globalized and interconnected society. Finally, the overview of ALO assessment practices nationwide could help institutions discover the gaps between accreditors, and perhaps

more effective quality enhancement plans could be developed and implemented to meet accreditation compliance requirements and benefit institutional sustainability over the long term.

Conclusion

Based on the findings, institutions and programs have recognized the significance of cultivating affective domain learning as well as incorporating ALO assessment into education practices. However, more efforts should be made towards, firstly, committing to professional development focusing on increasing assessment practitioners' competence of implementing appropriate assessment practices, particularly policies and guidelines interpretation and compliance. Secondly, institutional effectiveness professionals should consider incorporating ALO assessment practices into other academic programs, general education curricula, and even co-curricular learning in order to cultivate students' values and mindsets alongside developing their cognitive knowledge and skills. Thirdly, inviting more faculty, administrative members, and students to participate in ALO assessment would ostensibly create an effective environment, culturally, for assessment practices. And finally, reinforcing communications with accreditors to acknowledge the most updated guidelines and standards will enhance organizations' ability to effectively comply with accreditors' standards and principles.

In conclusion, legitimization of education institutions and programs involves the efforts and hopes of multiple stakeholders. As a doctoral degree earner, I hoped to equip myself with knowledge, skills, and relevant affective competence to cope with challenges from my future workplaces. As a customer, I hope the healthcare system could provide quality services for community members. As an educator, I also hope for educational institutions and academic programs that prepare students for career successes through addressing the gaps between the current educational practices and the educational policies, guidelines, and standards. Parallel to

these hopes, policymakers should update and advance policies and guidelines to respond to the increased needs from an ever-more complex society.

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Appendix A: Action Verbs for Affective Domain

Affective Domain

This list of action verbs can be used in the development of program-level outcomes or course-level learning objectives in the affective domain. It is adapted from Kathy V. Waller's "Writing Instructional Objectives" guide [1]. The "[developmental] affective domain in concerned with changes (growth) in interests, attitudes and values. It is divided into five major classes arranged in hierarchical order based on level of involvement (from receiving, to characterization by a value)" (Waller, n.d., p.4). Each column includes (1) category from Krathwohl's (as cited in Waller, n.d.) affective domain taxonomy (2) definition of the category, and (3) action verbs associated with that category.

Receiving	Responding	Valuing	Organization	Characterization
Attend to stimuli	React to stimuli	Attach significance to ideas	Build value system	Internalize values that guide behavior
Ask Acknowledge Attend (to) Follow Listen Meet Observe Receive	Agree Allow Answer Ask Assist Attempt Choose Communicate Comply Conform Cooperate Demonstrate Describe Discuss Display Exhibit Follow Give Help Identify Locate Notify Obey Offer Participate (in) Present Read Relay Reply Report Respond Select Try	Adopt Aid Care (for) Complete Complement Contribute Delay Encourage Endorse Enforce Evaluate Expedite Foster Guide Initiate Interact Join Justify Maintain Monitor Praise Preserve Propose Query React Respect Seek Share Study Subscribe Suggest Support Thank Uphold	Anticipate Collaborate Confer Consider Consult Coordinate Design Direct Establish Facilitate Follow through Investigate Judge Lead Manage Modify Organize Oversee Plan Qualify Recommend Revise Simplify Specify Submit Synthesize Test Vary Weigh	Act Administer Advance Advocate Aid Challenge Change Commit (to) Counsel Criticize Debate Defend Disagree Dispute Empathize Enhance Excuse Forgive Influence Motivate Negotiate Object Persevere Persist Praise Profess Promote Promulgate Question Reject Resolve Seek Serve Strive Solve Tolerate Volunteer (for)

[1] Waller, K. (n.d.). *Writing instructional objectives*. Retrieved from: http://www.cetla.howard.edu/teaching_resources/Curriculum_Design/docs/Learning%20Objectives.pdf

Appendix B: IRB Approval

Date: December 16, 2022

PI: Lan Song

Department: ONL-Online Student, 17250-EdD Online

Re: Initial - IRB-2022-138

Legitimization of Affective Domain Learning: A Transformative Mixed-Methods Analysis of Learning Outcomes Assessment Practice

The Abilene Christian University Institutional Review Board has rendered the decision below for *Legitimization of Affective Domain Learning: A Transformative Mixed-Methods Analysis of Learning Outcomes Assessment Practice*. The administrative check-in date is --.

Decision: No Human Subjects Research

Category:

Research Notes: Approved as Non-Human Research

Additional Approvals/Instructions:

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable. All approval letters and study documents are located within the Study Details in Cayuse IRB.

The following are all responsibilities of the Primary Investigator (PI). Violation of these responsibilities may result in suspension or termination of research by the Institutional Review Board. If the Primary Investigator is a student and fails to fulfil any of these responsibilities, the Faculty Advisor then becomes responsible for completing or upholding any and all of the following:

• When the research is completed, inform the Office of Research and Sponsored Programs. If your study is Exempt, Non-Research, or Non-Human Research, email orsp@acu.edu to indicate that the research has finished.
• According to ACU policy, research data must be stored on ACU campus (or electronically) for 3 years from inactivation of the study, in a manner that is secure but accessible should the IRB request access.
• It is the Investigator's responsibility to maintain a general environment of safety for all research participants and all members of the research team. All risks to physical, mental, and emotional well-being as well as any risks to confidentiality should be minimized.

For additional information on the policies and procedures above, please visit the IRB website
http://www.acu.edu/community/offices/academic/orsp...
or email orsp@acu.edu with your questions.

Sincerely,
Abilene Christian University Institutional Review Board

Appendix C: Action Verbs for Cognitive Domain

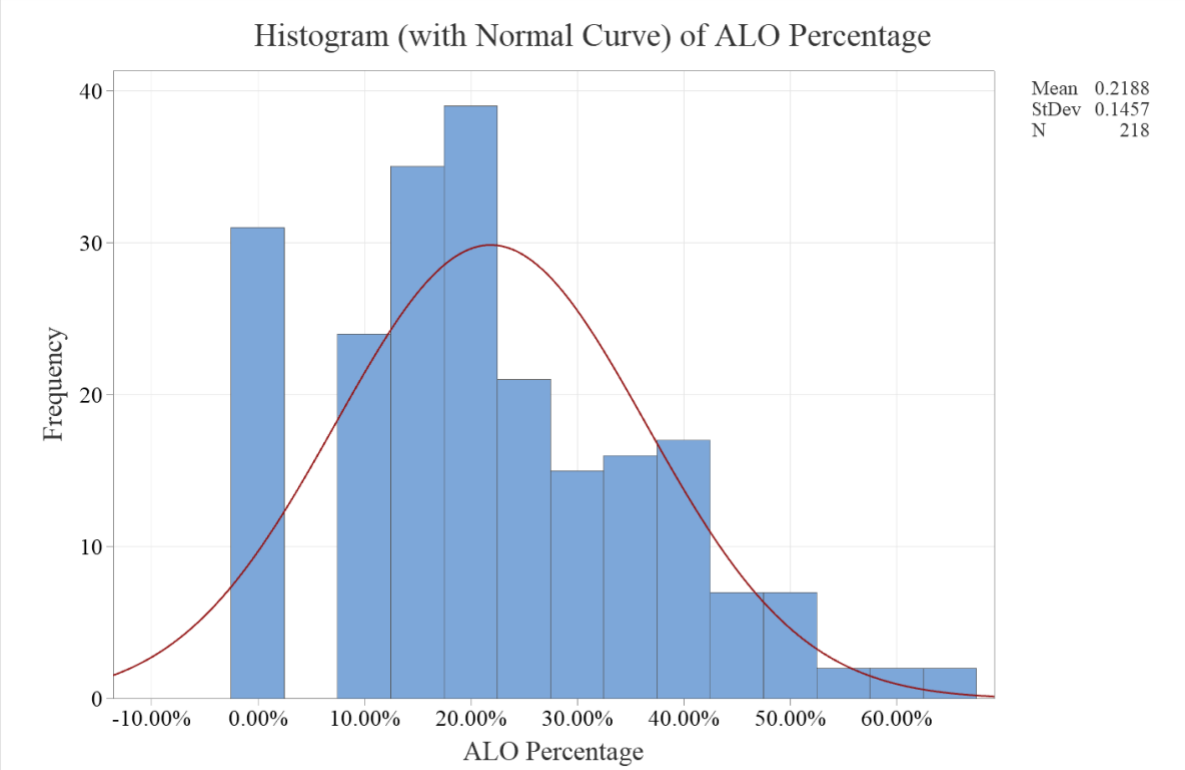
Action Verbs

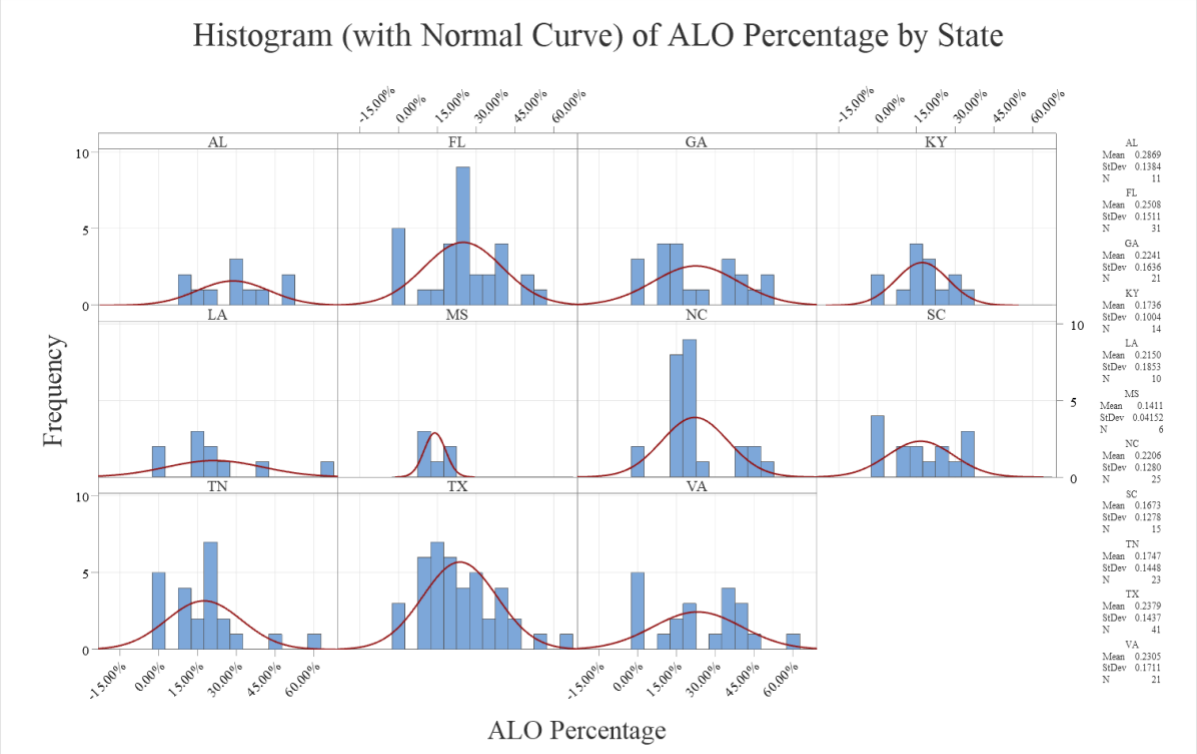
Cognitive Domain

This list of action verbs can be used in the development of program-level outcomes or course-level learning objectives in the cognitive domain. It is adapted from Jerrold Kemp's "Shopping List of Verbs" (2014) and based upon Bloom's Taxonomy of Learning. Each column includes (1) category from Bloom's Taxonomy of Learning, (2) definition of the category, and (3) action verbs associated with that category.

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Knowledge of terms, facts, conventions, classifications, etc.	Comprehension of ideas, translations, interpretations, extrapolation	Use of knowledge, problem solving, etc.	Examination of parts of information	Fusion of ideas to produce unique plan, structure, pattern, etc.	Forming judgments based on criteria and evidence
Define Describe Identify Label List Name Recognize Recall Repeat State	Characterize Classify Convert Defend Discuss Distinguish Establish Estimate Explain Express Extend Generalized Illustrate Indicate Infer Locate Paraphrase Predict Recognize Relate Review Rewrite Summarize Translate	Apply Change Choose Compute Demonstrate Discover Dramatize Employ Interpret Manipulate Model Modify Operate Practice Predict Prepare Produce Relate Schedule Show Sketch Solve Use Write Implement	Analyze Appraise Breakdown Calculate Categorize Compare Contrast Criticize Diagram Differentiate Discriminate Distinguish Examine Experiment Identify Illustrate Infer Model Outline Point out Question Relate Select Separate Subdivide Test	Arrange Assemble Collect Combine Comply Compose Construct Create Design Develop Devise Explain Formulate Generate Plan Prepare Rearrange Reconstruct Relate Reorganize Revise Rewrite Set up Synthesize Tell Write	Appraise Argue Assess Choose Compare Conclude Contrast Defend Describe Discriminate Estimate Evaluate Explain Interpret Judge Justify Predict Rate Relate Select Support Value Determine

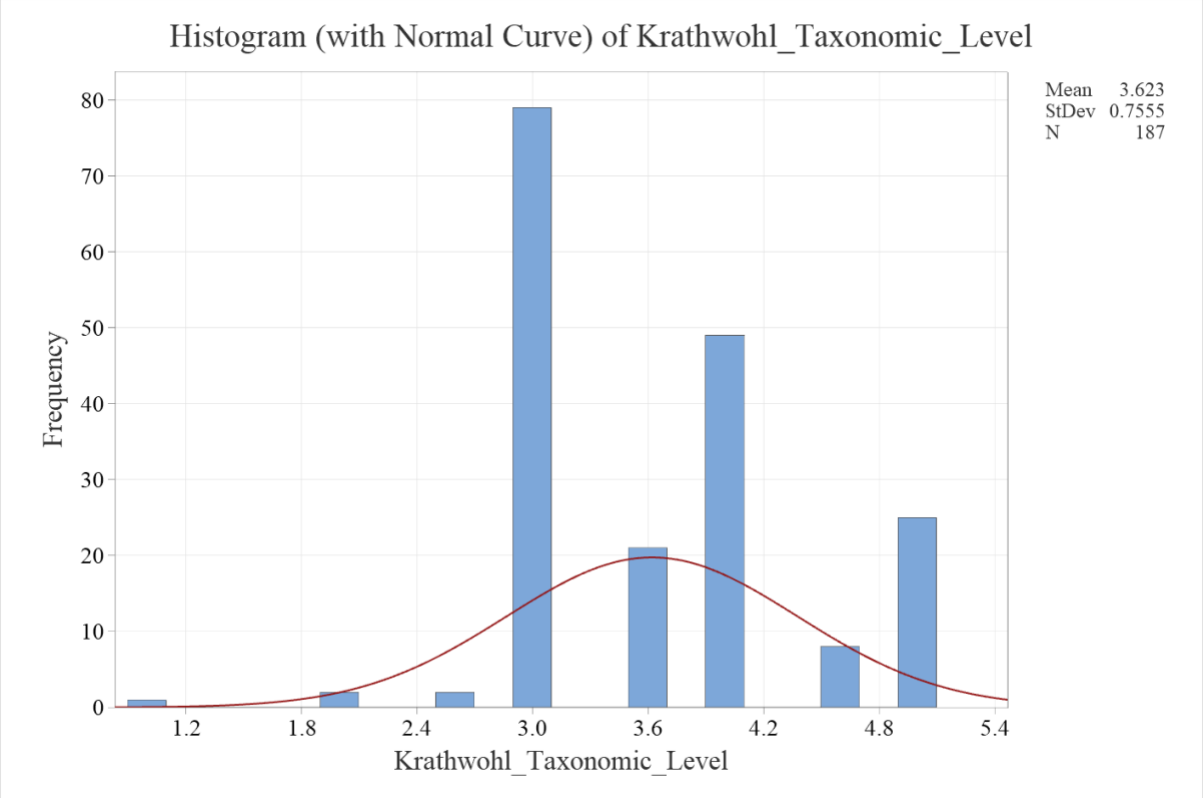
Appendix D: Histograms of ALO Percentages





Panel variable: State

Appendix E: Histograms of Krathwohl Taxonomic Levels



Panel variable: State

Appendix F: Index Levels by States

Results for State = AL

Rows: Index Level

	Count
Z	0
L	5
M	6
H	0
All	11

Results for State = FL

Rows: Index Level

	Count
Z	6
L	12
M	10
H	4
All	32

Results for State = GA

Rows: Index Level

	Count
Z	3
L	11
M	6
H	1
All	21

Results for State = KY

Rows: Index Level

	Count
Z	3
L	10
M	2
H	0
All	15

Results for State = LA

Rows: Index Level

	Count
Z	3
L	6
M	1

H	1
All	11

Results for State = MS

Rows: Index Level

	Count
Z	1
L	6
M	0
H	0
All	7

Results for State = NC

Rows: Index Level

	Count
Z	3
L	15
M	6
H	1
All	25

Results for State = SC

Rows: Index Level

	Count
Z	6
L	7
M	2
H	1
All	16

Results for State = TN

Rows: Index Level

	Count
Z	7
L	13
M	2
H	2
All	24

Results for State = TX

Rows: Index Level

	Count
Z	5
L	29
M	9

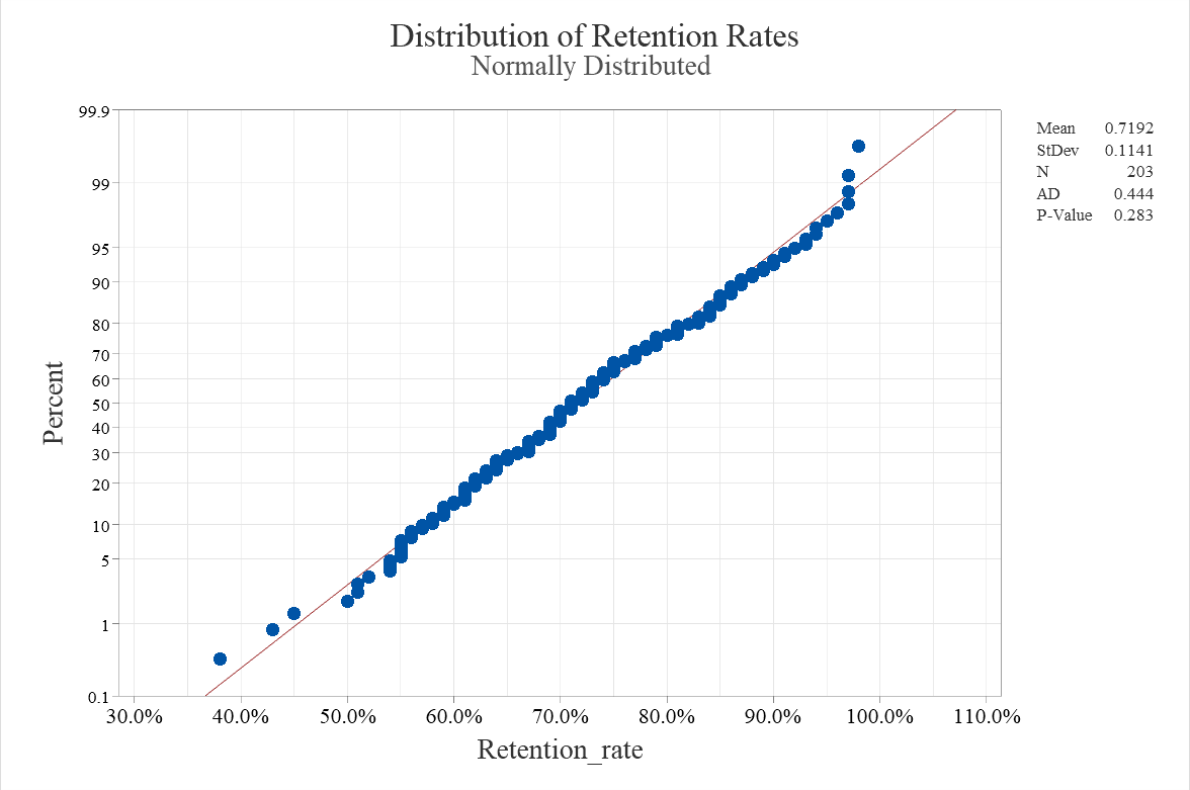
H	0
All	43

Results for State = VA

Rows: Index Level

	Count
Z	6
L	6
M	9
H	1
All	22

Appendix G: Distribution of Retention Rates



Appendix H: General Linear Model: Retention Rate Versus Five Variables

Method

Factor coding	(-1, 0, +1)
Rows unused	25

Factor Information

Factor	Type	Levels	Values
Song_Taxonomic_Level	Fixed	4	Poor, Average, Good, Exemplary
State	Fixed	11	AL, FL, GA, KY, LA, MS, NC, SC, TN, TX, VA
Recoded Campus Setting	Fixed	3	Rural, Suburb, City

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
S-F Ratio	1	0.20716	0.20716	20.26	0.000
A-Net Price	1	0.11904	0.11904	11.64	0.001
Song_Taxonomic_Level	3	0.07953	0.02651	2.59	0.054
State	10	0.21096	0.02110	2.06	0.030
Recoded Campus Setting	2	0.13394	0.06697	6.55	0.002
Error	184	1.88168	0.01023		
Total	201	2.63039			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0.101126	28.46%	21.85%	13.75%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0.4926	0.0468	10.52	0.000	
S-F Ratio	0.00986	0.00219	4.50	0.000	1.45
A-Net Price	0.000004	0.000001	3.41	0.001	1.29
Song_Taxonomic_Level					
Poor	-0.0257	0.0147	-1.75	0.081	1.96
Average	0.0082	0.0131	0.63	0.532	1.82
Good	-0.0115	0.0123	-0.93	0.353	1.79
Exemplary	0.0290	0.0121	2.40	0.017	*
State					
AL	0.0185	0.0293	0.63	0.530	2.73
FL	-0.0021	0.0237	-0.09	0.930	2.36
GA	-0.0470	0.0217	-2.16	0.032	1.98
KY	0.0092	0.0265	0.35	0.730	2.45
LA	-0.0530	0.0308	-1.72	0.087	2.90
MS	0.0559	0.0392	1.43	0.156	4.02
NC	0.0381	0.0213	1.79	0.075	1.99
SC	0.0157	0.0256	0.61	0.541	2.36
TN	-0.0079	0.0211	-0.38	0.707	1.95
TX	-0.0520	0.0181	-2.87	0.005	1.83
VA	0.0246	0.0217	1.13	0.259	*
Recoded Campus Setting					
Rural	-0.0389	0.0120	-3.25	0.001	2.18
Suburb	0.0165	0.0142	1.16	0.247	2.16
City	0.0224	0.0103	2.18	0.031	*

Appendix I: Updated Conceptual Framework