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A Holistic Approach To Creating Cultures Of Quality Excellence Within Higher Education Institutions In North Carolina

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A HOLISTIC APPROACH TO CREATING CULTURES OF QUALITY EXCELLENCE WITHIN HIGHER EDUCATION INSTITUTIONS IN NORTH CAROLINA

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ABSTRACT

This paper first seeks to identify cultural factors of faculty, staff, and students within Higher Education Intuitions (HEI) and then understand how those factors affect the individual as well as the overall larger population of all studied groups to create cultures of quality excellence. Secondary data collected from government databases was used for the research. The independent variables included cultural factors for each stakeholder and the dependent variables included satisfaction levels of each stakeholder. Faculty and staff independent cultural variables included Performance Management, Supervisor/Department Chair Effectiveness, Communication & Collaboration, Diversity, Inclusion & Belonging, and Mission and Pride. The dependent variable for faculty and staff was Job Satisfaction/Support. Student independent cultural variables included Academic Emphasis, Learning with Peers, Experiences with Faculty, and Rich Educational Experiences. The dependent variable used for students was Student Satisfaction. Each were studied by means of multiple linear regression, ANOVA, and/or correlation analysis using SPSS v28. It was found that Performance Management most affects faculty satisfaction levels, while Communication & Collaboration and Diversity, Inclusion, & Belonging most affect staff satisfaction levels. For faculty and staff satisfaction, regression equations have been developed. Academic Emphasis and Learning with Peers most affect student satisfaction levels, and there was a moderate correlation between faculty satisfaction levels and student satisfaction levels. Interest in quality cultures within HEI has not been holistically researched to facilitate understanding and improving campus climates compromising faculty, staff, and students. This

study will be beneficial to adding to the current body of knowledge to support improving campus climates. Since there was a gap in research that identified and incorporated all internal HEI stakeholders together, the implications of this study include adding to the current body of knowledge to comprehensively include faculty, staff, and students. This research was limited to public four-year institutions within the University of North Carolina System Schools, and it does not take into consideration any other type of institution based on degree, Carnegie classification, research emphasis, or academic offerings.

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CHAPTER 1

INTRODUCTION

In order to understand cultural factors, it is important to consider the motivators that influence our beliefs, thoughts, and actions. Some researchers argue that cultural influences are wound into every facet of our lives and that it answers "why" things are done which can explain the outcomes of situations. *The Change Pyramid* evaluated by Landstrom identifies the "what", the "how", and the "why" behind motivation (Landstrom, 2019). According to Landstrom, the "what" we do are the technical aspects using tools, technology, and outcomes; and the "how" are the processes to include systems and structures, and the people to include behaviors, development, and training (Landstrom, 2019). The "why" is where cultural factors are focused and can include the mission, core values, visions, approaches, principles, reflections, purpose, and significance (Landstrom, 2019). The "why" is the most difficult of the motivators to understand, explain, and change.

Culture is a term that is difficult to define and is considered a concept with no limitations, that can change depending on the situation. Causadias describes culture as "a system, a dynamic whole that creates and is created by people, places, and practices. The system and its components are inseparable and engaged in mutual determination: the whole organizes the parts, and the parts organize the whole. People create culture through shared practices in places, and culture shapes how people engage in practices and build places" (Causadias, 2020). Edgar Schein, one of the

most prominent contributors to the discipline of organizational development, defines organizational culture as “the accumulated shared learning of [a] group as it solves its problems of external adaptation and internal integration; which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel, and behave in relation to those problems” (Schein & Schein, 2017).

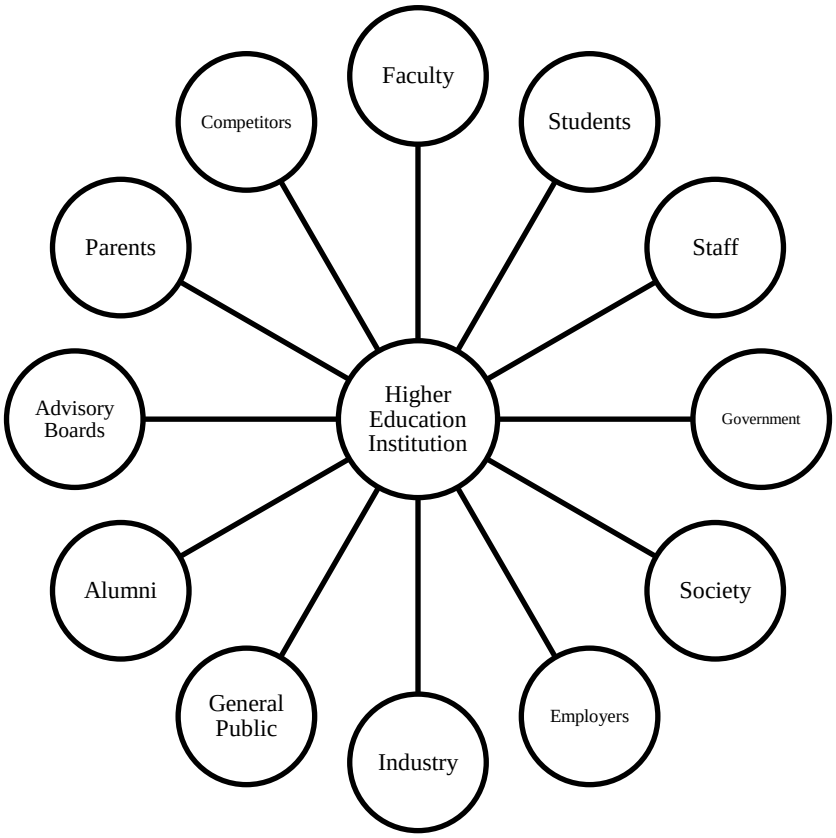
For this paper, Higher Education Institutions (HEI) include any establishment that offers studies beyond secondary education to include colleges, universities, community colleges, and technical schools. Literature shows that the forefront of many campuses and their strategies is the concept of “quality cultures” (Dziminska, et al., 2018). Quality cultures are a crucial part of the Higher Education environment that builds trust between stakeholders, increases brand reputation and prestige, solidifies stakeholder satisfaction, loyalty, personal identification, well-being, belonging, and assists with gaining and retaining students and faculty (Dziminska, et al., 2018). They have responsibilities to a multitude of internal and external stakeholders to include teaching, research, innovation, impacts to society, impacts to the economy, knowledge transfer, community partnerships, industry relations, and globalization (Miotto, et al., 2020). HEI face many challenges like increasing demands for innovative teaching, learning, and research methods, as well as increasing in internationalization (Miotto, et al., 2020). Competition to recruit the best students, the best faculty members, partnering with industry, securing financial resources, and delivering the best knowledge has forced a better way to strategize initiatives across campuses (Miotto, et al., 2020).

Better understanding the various stakeholders and their cultural needs will determine how HEI position their initiatives and offerings to create an all-inclusive approach to establishing

"cultural excellence" throughout the entire campus environment. A high-level overview of the HEI environment and stakeholders is illustrated in Figure 1.

Figure 1

Higher Education Institution Stakeholders

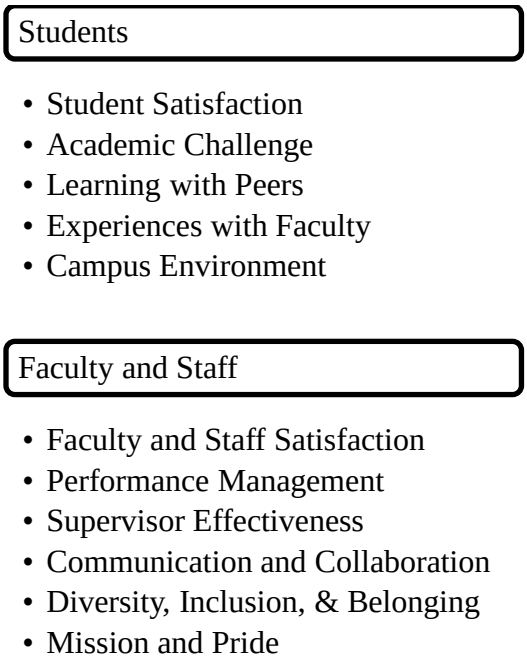


The focus of this dissertation is on identifying and understanding HEI internal stakeholders' cultural factors and determining how those factors affect the individual as well as the overall larger population of all studied groups. Figure 2 illustrates the subset of stakeholder groups identified and studied, as well as the HEI cultural factors identified for each as variables considered in analysis. The stakeholder groups and cultural factors listed in Figure 2 were chosen from the student survey and employee survey examined during data collection and

analysis (ModernThink LLC, n.d.; Center for Postsecondary Research Indiana University School of Education, n.d.).

Figure 2

Stakeholder Groups and Cultural Factors



In summary, the goal of this research is to identify cultural factors for faculty, staff, and students, and understand how cultural factors affect each stakeholder individually and collectively. Further, the data collected from the analysis will assist HEI in creating cultures of excellence across their campus.

Theoretical Framework

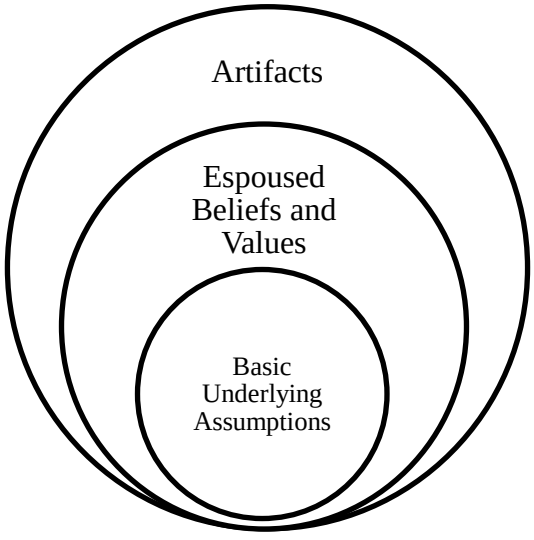
This dissertation framework is guided by Edgar Schein's Model of Organizational Culture that analyzes and defines three distinct levels of culture to include "artifacts, espoused beliefs and values, and basic underlying assumptions" (Schein & Schein, 2017). Artifacts are visible, evident, or observable within an organization (Schein & Schein, 2017). Espoused beliefs and values are "ideas, goals, values, aspirations, ideologies, and rationalizations" that those

within the organization have (Schein & Schein, 2017). Basic underlying assumptions are involuntary thoughts, viewpoints, and values that are inferred which determines someone's actions, perceptions, thoughts, and feelings (Schein & Schein, 2017).

Figure 3 shows how each level of culture functions within each individual organization and can be thought of like peeling away the layers of an onion. The closer to the surface the cultural factor is, the easier it is to change, and vice versa, the closer the cultural factors are to the middle, the harder they are to change. The first layer and nearest to the outside are artifacts which can be changed easily as they are tangible and observable factors within organizations. Schein believes that among artifacts lies the "climate" of the organization which is an indication of the culture (Schein & Schein, 2017). The next layer, "espoused beliefs and values", are what those within the organization consider to be the ideals of the organization and are expressed throughout the organization in various ways. The third layer, basic underlying assumptions, are so integrated in the culture that sometimes they are hard to recognize from within the organization and are the drivers of the observed behaviors (Schein & Schein, 2017).

Figure 3

Schein's Model of Organizational Culture



Since organizations form cultures over time and adapt to changes as they arise, Schein's framework can be used to enable organizations to reshape and recompose their culture. Schein believes cultures are transformational in that cultural behaviors must be "unlearned" for a new behavior to arise (Schein & Schein, 2017). Changes are a natural occurrence and organizations continually transform through general evolution or specific evolution. Through evolution, the organizational culture will adapt to changes internally and externally while creating new systems of authority, and creating new cultural alignments (Schein & Schein, 2017). Specific evolution of cultures "results from the adaptation of specific parts of the organization to their particular environments and the impact of increasing macro-cultural diversity on the core culture" (Schein & Schein, 2017). It is here where subgroups develop different subcultures that could create a lack of alignment between the overall organizational culture and subcultures (Schein & Schein, 2017).

In this study, the culture of the organization was defined as the culture of the HEI, and subcultures were identified as cultures created by students, faculty, and staff as individual groups. Schein's model was used as a foundation to study and understand each subculture, how they function separately and together, and determine best practices to create a culture of excellence.

Statement of the Problem

Studies have shown that HEI cultures directly impact enrollment rates, retention rates, research, internationalization, curriculum, stakeholder satisfaction, community engagement, industry connections and partnerships (Kumar, et al., 2020). For HEI to remain competitive and relevant, a focus on creating cultures of excellence must be at the forefront of their missions and strategies. HEI face declining enrollment due to a larger population of older adults and a

declining pipeline of younger adults, and since college enrollments consist of mostly students ages 29 and younger, enrollment is not likely to significantly increase within the foreseeable future (Perez-Vergara, 2019). During the Great Recession of 2008-2009, birthrates fell by 2%, and because of this HEI enrollment is expected to decrease by more than 11% by 2029 (*Higher Ed Magazine*, n.d.). There are also challenges that include a decrease in public funding, competition both nationally and internationally, rising expectations from stakeholders, and the increased demand for both openness and responsibility to the public (Miotto & Blanco-González, 2020). In addition, there is a clear disconnect between the skills, motivation, and philosophy that guides leaders and administration who are the drivers for cultural change (Kluse & Shannon, 2022).

Statement of Purpose

In a comprehensive review of current literature, it was found that quality cultures within HEI excel in numerous ways including stakeholder satisfaction, inclusiveness, creating a sense of belonging, increases in enrollment, retention, matriculation, and performance. Since current literature and models focus on siloed groups as a catalyst for understanding quality cultures, the goal of this study was to identify the factors that encompass students, faculty, and staff, to create a culture of excellence within HEI. There is a need in research for a universal understanding identifying how all stakeholders within HEI view and value cultural factors and how they all unite to create cultures of excellence. This study set out to identify cultural factors that affect employees and students and guides HEI when transforming their campus environment into centers of cultural excellence.

Research Questions and Hypotheses

The research was directed by Figure 4 to compare relationships among each stakeholder's independent (predictor) cultural variables and the dependent (outcome) cultural variables and identify how they work together to incorporate the values of everyone. The research questions guiding this dissertation are listed below along with their corresponding hypotheses:

$H_0$1: There are no significant cultural factors that influence faculty and staff job satisfaction.

Q1: What are the most important cultural factors that influence faculty job satisfaction?

Q2: What are the most important cultural factors that influence staff job satisfaction?

$H_0$2: There are no significant cultural factors that influence student satisfaction.

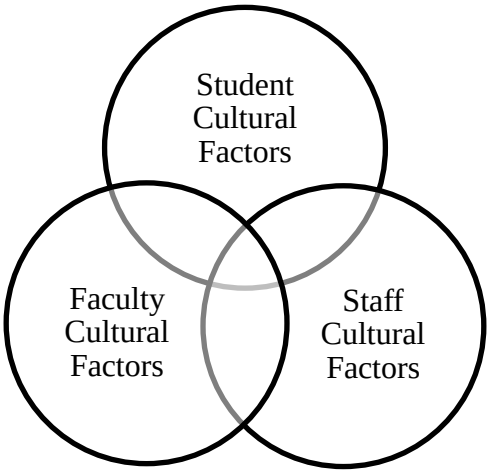
Q3: What are the most important cultural factors that influence student satisfaction?

$H_0$3: There is no significant correlation between faculty and staff satisfaction, and student satisfaction.

Q4: Is there a correlation between faculty satisfaction, staff satisfaction, and student satisfaction?

Figure 4

Theoretical Model for Dissertation Research



Significance of the Study

It was noted in the Journal of Management & Engineering Integration that the benefit of quality management practices implemented into higher education are vague and questionable, and studies have failed to measure their success. (Kluse & Shannon, 2022). Hildesheim & Sonntag note in their findings that even though case studies and qualitative research has markedly increased, the practical approach methods to quality culture have not been established (Hildesheim & Sonntag, 2019).

In the *heiQUALITY Cultures Project*, a comprehensive literature review was performed on 786 publications regarding quality cultures. It was found that after reviewing each publication, only three studies focused on understanding and measuring quality cultures specifically, and all the other publications focused on quality dimensions, service quality, or culture in general (Hildesheim & Sonntag, 2019). Through their research and analysis, the authors were able to create the *Quality Culture Model*, but it only focused on faculty and staff within HEI, not other stakeholders.

The interest in quality cultures within HEI has not been adequately researched to assist with understanding and improving campus climates to comprehensively include faculty, staff, and students. HEI play a substantial role in society and have an obligation to create exceptional cultural climates. During the extensive literature review, it was found that there is a gap in research that identifies and incorporates HEI stakeholders, the cultural factors that affect them, and the extent and outcomes of those effects. This study will be the first step in filling that gap.

Statement of Assumptions

As the review of literature has identified, HEI cultures are complex and often misunderstood. HEI vary in numerous ways including their geographic location, their emphasis

on research, their academic offerings, their policies and procedures, public vs. private institutions, and types of degrees granted. The primary assumption of this research is that all HEI are not equal, and their cultures require varied and specific satisfaction variables.

Statement of Limitations

One primary limitation in this research is the focus on public four-year universities within the University of North Carolina System Schools located in the United States (U.S.). It does not take into consideration HEI that are private, non-degree granting, 2-year, specialized, technical, or vocational institutions. An individual university's Carnegie classification, research emphasis, or academic offerings are not considered in this research or its recommendations. There is no differentiation between size of schools regarding student population, staff population, faculty population, admission policies, student and employee service offerings, or demographic characteristics.

Statement of Methodology

Data used in the research was secondary and collected from government databases. The independent variables included cultural factors for each stakeholder and the dependent variables included satisfaction levels of each stakeholder. Faculty and staff independent cultural variables included Performance Management, Supervisor/Department Chair Effectiveness, Communication & Collaboration, Diversity, Inclusion & Belonging, and Mission and Pride. The dependent variable for faculty and staff was Job Satisfaction/Support. Student independent cultural variables included Academic Emphasis, Learning with Peers, Experiences with Faculty, and Rich Educational Experiences. The dependent variable used for students was Student Satisfaction. Each were studied by means of multiple linear regression, ANOVA, and/or correlation analysis with SPSS v28.

Statement of Terminology

Carnegie Classification: A framework that categorically classifies U.S. accredited degree-granting Higher Education Institutions (*Carnegie classifications,* n.d.).

Culture: “Patterns of human activity and the symbolic structures that give such activities significance and importance. Cultures can be ‘understood as systems of symbols and meanings that even their creators contest, that lack fixed boundaries, that are constantly in flux, and that interact and compete with one another’” (LaMorte, 2016).

Culture of Excellence: “being possessed by organizations that value continuous improvement, waste reduction and problem-solving in managerial decisions related to people, processes, and crafting visionary ideas to achieve long-term success and effectiveness” (Provance, et al., 2022).

Climate: “the ethos, or spirit, of an organization [and] represents the attitude of an organization” (Gruenert, 2023).

EHRA Employees: Employees that are Exempt from the Human Resources Act (EHRA) laws related to employment for the State of North Carolina personnel.

Higher Education Institution (HEI): “a college, university, or similar institution, including a technical or business school, offering postsecondary level academic instruction that leads to an associate or higher degree if the school is empowered by the appropriate State education authority under State law to grant an associate or higher degree” Cornell Law School, Cornell University. (n.d.).

Service Quality: “a byproduct of perceived service performance and service expectations” (Alfy & Abukari, 2019).

SHRA Employees: Employees that are Subject to the Human Resource Act (SHRA) laws related to employment for the State of North Carolina personnel.

CHAPTER 2

REVIEW OF LITERATURE

Higher Education Institutions

In the United States, there are 3,931 degree granting HEI, of which 1,294 award associate degrees and 2,637 award bachelor's degrees (Fast facts: Educational institutions, 2021). The first U.S. public HEI was started more than four-hundred years ago, and their mission is still maintained as a service to the public as it was from the beginning (Perez-Vergara, 2019). Higher education provides a basis for research among all stakeholders which in turn creates the foundational knowledge for innovation (OECD, 2019). Their duties reach beyond teaching and research, and they impact their community, the national economy, and are facilitators of knowledge transfer between stakeholders (Miotto & Blanco-González, 2020).

Though funding models vary by state, HEI are primarily subsidized through tuition and fees, federal and state appropriations, grants, and contracts (Federal investment in Higher Education: U.S. Treasury Data Lab). In 2018, HEI were awarded federal and non-federal funding totaling $1.068 trillion (Federal investment in Higher Education: U.S. Treasury Data Lab). After adjusting for inflation, state funding in 2017 was $9 billion below the funding for the 2008 school year (Mitchell, et al., 2017). The decrease in government funding and budget pressures has forced administrators to develop new approaches to increase enrollment and retention to create a sustainable fiscal future (Miotto & Blanco-González, 2020). When state budgets are

decreased, the institutions must then raise tuition levels which puts a larger financial burden on students (Guraja, 2022; Guraja, et.al., 2022). HEI are ensuring their competitive advantage through key factors that could be "intangible assets such as reputation and legitimacy" to maintain their continued existence (Miotto & Blanco-González, 2020). Since 2013, enrollment within 2-year colleges and four-year colleges has steadily declined at a rate of 3.66% and 1.99% respectively (Fast facts: Educational institutions, 2021). Since state funding is based heavily on the amount of per full-time equivalent (FTE) students, this poses a crucial issue for state-supported public colleges and their operating revenues (State support for higher education per full-time equivalent student. n.d.).

The overall retention rate in fall 2020 for public four-year universities in the United States was 82% overall, with the most selective universities (i.e., not having an open admissions policy) having a 96% retention rate and the least selective universities (i.e., having an open admissions policy) had a 59% retention rate (*Undergraduate Retention and Graduation Rates,* 2022). Graduation rates for 6-year completion in 2020 rose from 56% to 63% (*Undergraduate Retention and Graduation Rates,* 2022). There are many factors that contribute to student retention and graduation rates that include student engagement with the campus, attaining social connections with peers, preparation for academics, mental health, and personal well-being (Kalkbrenner, et al., 2021).

HEI are widely regarded as one of the most significant stages in a person's life and students develop many different capabilities while enrolled including reasoning, social awareness, and knowledge. HEI are unique in that their climates include both human and non-human factors, and there are many complex trends and connections between students, staff, faculty, and administration (Abood & Hmaid, 2023). The environment in which higher education

operates is rapidly changing due in part to the emerging University 4.0 model that engages students with HEI through emerging technologies such as open online courses and immense e-learning platforms, technological devices that support teaching and learning, and the development of technologies (Rosak-Szyrocka, 2022). University 4.0 is one that "unites education, science, industry, and knowledge economy; it is considered as a university of the future developing innovations" (Jugembayeva, 2022). All stakeholders within HEI do not embrace University 4.0 models yet as it requires personal and professional growth through modern competencies and the ability to develop new capabilities (Jugembayeva, 2022).

HEI can be bureaucratic and siloed in nature. They are further divided into various specializations, discipline and departmental niches, individualism incentives, and architype differences (Camfield, 2022). Administrative structures can be hierarchical, which limits communication flows and encourages a top-down authority-based leadership style over a horizontal interaction style (Camfield, 2022). Furthering the promotion of individual agendas are the practices of "responsibility-centered management" where each individual unit is accountable for their own fiscal independence (Camfield, 2022). All these things coupled together creates rivalries over resources and the promotion of the individual rather than the greater good of the HEI. There are many stakeholders within HEI who must be considered when assessing and understanding each perspective to include students, faculty, and staff. Each has its own characteristics, goals, and objectives and it is important to consider all these individually and collectively to ascertain the necessary steps to progress.

Quality Cultures in Higher Education

Defining quality in higher education is difficult as some researchers "assert that quality can neither be defined nor quantified and others asserting that quality is subjective and dependent

upon individual perspectives" (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015). In public higher education, four main stakeholder groups include financially supporting bodies, students, employers, and employees of the school (Dicker, Garcia, Kelly, & Mulrooney, 2019). These various stakeholders have different goals, values, and perceptions of quality; therefore, one standard definition of quality would not apply to every school. Each stakeholder could potentially be considered a "customer" so defining customer satisfaction in education is difficult. Adding to this complexity are two dimensions to quality in education that work together concurrently: quality is both dynamic and contextual (Parast & Safari, 2022). Even though quality is a difficult term to define, there are holistic classifications of quality in education that are crucial to consider including quality as being "purposeful, exceptional, transformative, and accountable" (Schindler et al., 2015). Table 1 below from Schindler et al., defines each classification of quality and its cruciality to understanding quality in higher education (Schindler et al., 2015).

Table 1

Classifications of Quality

Classifications	Definitions
Purposeful	Institutional products and services conform to a stated mission/vision or a set of specifications, requirements, or standards, including those defined by accrediting and/or regulating bodies
Exceptional	Institutional products and services achieve distinction and exclusivity through the fulfillment of high standards
Transformative	Institutional products and services effect positive change in student learning (affective, cognitive, and psychomotor domains) and personal and professional potential
Accountable	Institutions are accountable to stakeholders for the optimal use of resources and the delivery of accurate educational products and services with zero defects

Understanding what quality factors are important to each stakeholder is crucial to creating a quality culture. According to Carvalho, et al., in *Total Quality Management & Business Excellence*, organizational culture is a "complex set of shared values, beliefs, assumptions, and symbols that are reflected in behaviors and norms of an organization" (Carvalho, et al., 2019). HEI culture can be understood by artifacts, espoused beliefs, and basic assumptions (Pell & Amigud, 2023). Artifacts are visible and tangible things that could include departmental policies, academic posters, furniture, and buildings throughout the HEI. Espoused beliefs are values that the HEI expresses and can include the mission statement, student code of conduct, and the demonstrated traits of leaders. Basic assumptions of HEI are those that are used to make day-to-day decisions and can include the unconscious thoughts, ideas, opinions, and feelings to guide those assumptions (Schein, 2017). Since various stakeholders have a different concept of quality, this is especially difficult to accomplish. In a report published in *Studies in Higher Education*, Dicker et al., found that industry employers did not find teaching and learning academic facilities as important quality factors, but faculty, staff, and students did (Dicker et al., 2019). The study also found that students, faculty, and staff valued the quality of the student experience, but industry employers mostly valued how employable the students were after graduation (Dicker et al., 2019). One large finding in the study related the relationship between faculty and students with 95% of students agreeing that their professors impacted their learning (Dicker et al., 2019). Further, each stakeholder holds different ideals and values, and finding the balance between everyone can be especially difficult.

In *Studies in Higher Education*, Hildesheim and Sonntag emphasize that quality culture is an organizational culture "which emphasizes the importance of continuous quality improvement, shared attitudes, and commitment towards quality" and add that the "implementation of quality

tools and quality management procedures represents one of the major challenges of today's globally acting universities" (Hildesheim & Sonntag, 2019). The authors note that there are various dimensions to quality culture in higher education including commitment and engagement between students and faculty and staff, quality-oriented leadership, and collective communication (Hildesheim & Sonntag, 2019). The study also found that these quality culture factors increased job satisfaction, a higher commitment to the institution, and an increase in career development (Hildesheim & Sonntag, 2019).

To maintain relevancy and grow, HEI must focus on creating and sustaining cultures of quality. The best way to achieve this is through cultural excellence implementation throughout the entire college or university. These necessary changes will increase enrollment, retention rates, the reputation and internationalization of the institution, research and innovation, stakeholder satisfaction, excellence of faculty and staff, student learning, community engagement, and industry connections and partnerships (Kumar, et al., 2020). These things are increasingly important due to the competitiveness that HEI face, including higher demands for quality in teaching and research and higher demands for quality in service and administration (Hildesheim & Sonntag, 2019). There are many ways that creating a quality culture within HEI benefits internal stakeholders and contributes to the greater good of the community. According to the Organisation for Economic Co-operation and Development, there are many social and economic benefits to providing social and cultural contributions to communities by improving "the general well-being and producing better social and health outcomes, cultural capital, urban and rural regeneration and environmental sustainability. These engagement activities have direct benefits for society by improving general health, welfare, and social cohesion; producing lively cultural surroundings; and supporting a clean and sustainable environment" (OECD, 2019).

Through cultural excellence, areas of enhancement are identified and continually improved throughout the institution as it is crucial to stakeholder satisfaction (Kumar, et al., 2020). Many departments and programs must assess themselves, plan for changes, and continually improve based on their findings (Ruben & Gigliotti, 2019). Ruben & Gigliotti (2019) also noted that assessment of organizations is "one of the most fundamental dimensions of organization excellence across sectors and settings" to include "establishing goals, monitoring the extent to which these goals are being met, and using the resulting information to plan and execute improvements" (Ruben & Gigliotti, 2019). They further note that "to obtain the full value of an assessment, the information that is collected should be used to motivate and guide planning and improvement" (Ruben & Gigliotti, 2019).

According to Kumar et al., the term "excellence" in higher education in HEI institutions "has been used extensively by accreditors to define the level of quality processed and services offered by institutions for the stakeholders' satisfaction, and success of students. Many accrediting bodies have defined excellence as a tangible reality; a combination of inputs using quantitative and qualitative indicators and continual progress of improved outputs" (Kumar, et al., 2020).

Cultural Climates within Higher Education Institutions

The National Center on Safe Supportive Learning Environments notes that campus climates in higher education is the "extent to which all students, faculty, staff, and visitors - regardless of race, ethnicity, sexual orientation, or disability - feel welcomed, valued, and supported in their work, studies or research [and] campuses must measure the real and perceived comfort, safety, and membership" to measure their cultural climate (*Assessing Climate, n.d.*). Climates on HEI campuses embody four distinct dimensions including the university's historical

legacy of inclusion and/or exclusion, the diversity and representation of various groups (including but not limited to racial, ethnic, religious, sexual orientations, and disabilities) the insights and outlooks among stakeholder groups, and the formal and informal actions between stakeholder groups (Souza, et al., 2018). Adding to the complexity of campus climates, embracing and understanding the personal and social changes that students go through while enrolled at HEI represents the psychosocial climate that is ever-changing (Souza, et al., 2018).

Stress levels among university students were found to be higher than stress levels among the general population (Amutio, et al., 2022). Studies found that classroom climate includes the quality of interactions that students have with their peers and professors, and this directly impacts academic performance (Amutio, et al., 2022). Healthy academic climates are crucial for academic success, general adaptation to university life, and an increased level of ambition and creativity (Abood & Hmaid, 2023). These climates are supportive academically and personally, engaging, positive, and successful while providing support to develop personal traits and soft skills that will ultimately assist students in achieving their personal goals and dreams (Abood & Hymaid, 2023).

In today's HEI setting, distance learners must also be considered as contributing significantly to the campus cultural climate. In fall 2021, 61% (9.4 million) "of all undergraduate students were enrolled in at least one distance education course" and at public four-year universities, and 44% were enrolled exclusively in online programs (*Distance Learning*, n.d.). Distance education has a positive impact on the development and retention of students and the accessibility and availability of online learning has allowed for an increase among previously unreachable groups (Sokolowich, et al., 2022). The sense of belonging to the HEI and interaction with peers is extremely important to distance education students and studies found that students

learned more and were more likely to remain enrolled when professors promoted collaboration, engagement, and a fostered a community within online courses (Sokolowich, et al., 2022).

Student Culture

In the Journal of Marketing for Higher Education, Alfy and Abukari define service quality as "being a byproduct of perceived service performance and service expectations" and in a Higher Education Institution setting, service quality is defined as the "extent by which specific service attributes, as determined by students, are met. Students' and staff service evaluation would be based on their experience on particular service attributes that they define as service recipients" (Alfy & Abukari, 2019). Alfy and Abukari list several dimensions of service quality outcomes in Higher Education Institutions to include student satisfaction and retention, trust and organization image, student loyalty, student intentions, student learning outcomes, and student motivation (Alfy & Abukari, 2019). Service quality is also considered in three levels to include dimensions and measurement, antecedents and outcomes, and processes and systems (Alfy & Abukari, 2019).

Student's perception of service quality can vary depending on student values, goals, expectations, and interpretations of satisfaction within their school. In the *International Journal of Comparative Education and Development*, Verma and Prasad found that there were many dimensions that can affect student service quality perceptions to include "academics, pedagogy, assurance/conformance, attitude, support staff, non-academic activities, course curriculum, delivery, functional value, image, industry institute interaction, reliability, responsiveness, perceived quality of outcome, and physical evidence" (Verma & Prasad, 2017). They also found that the most significant indicators of student's perceived service quality were academics, professional assurance, and efficient utilization of resources (Verma & Prasad, 2017). A study

conducted by Kalkbrenner, et al., found that 30% of college students have reported some type of mental destress, but only 20% to 40% pursued counseling services (Kalkbrenner, et al, 2019).

In *Total Quality Management & Business Excellence*, Sadeh & Garkaz found a gap between quality expected by students and the level of service quality existing throughout Higher Education Institutions (Sadeh & Garkaz, 2015). In the study the authors found a direct effect between the impacts that quality enablers have on service quality and student satisfaction (Sadeh & Garkaz, 2015). The quality enablers within Higher Education Institutions do affect student's perceived service quality, impact on student satisfaction, and influence service quality outcomes.

The most relevant higher education service quality model is the HiEdQUAL developed by Annamdevula and Bellamkonda. Its strengths include the various services that students encounter and experience in Higher Education Institutions, a high level of reliability when tested against other models, and each dimension grouped together within the model represents a functional area within Higher Education Institutions (Alfy &Abukari, 2019). The HiEdQUAL model includes the dimensions of "administrative aspects, academic aspects, support services, campus infrastructure, and academic facilities" (Alfy & Abukari, 2019). In *Total Quality Management*, Latif, et al. (2019), used the HiEdQUAL to measure the level of service quality within Higher Education Institutions and found that there were six main factors that affected perceived service quality to include "teacher quality, administrative services, knowledge services, activities, continuous improvement, and leadership quality" (Latif, et al., 2019). Student loyalty to the HEI was found to directly tie to student satisfaction, and the indicators of strong student loyalty include positive acclamations to the HEI, endorsing the HEI to others, and selecting the same HEI again (Teeroovengadum, et al., 2019).

High impact practices are intervention tools that enhance student success within HEI by building possibilities for lifelong learning and employability. High impact practices assist students with building their skills and knowledge while attending HEI and then connecting what they learned by applying it after graduation (Zilvinskis & Dumford, 2018). It has also been shown that participating in these results in higher GPA, higher retention rates, and higher levels of engagement (Zilvinskis & Dumford, 2018). These practices include participating in first-year seminars, sharing common core curriculum experiences, enrolling in writing-intensive courses, conducting research with a faculty member, participating in diversity and global learning, engaging in service-learning, participating in an internship, studying abroad, and completing a senior capstone experience (Zilvinskis & Dumford, 2018).

Studies have shown that low degree completion rates contribute to decreased civic engagement, a higher rate of poverty, and less opportunities within the workforce (Museus & Shiroma, 2022). Conversely, high rates of college completion increase student involvement while enrolled and after graduation, a sense of belonging while enrolled and after graduation, and lifelong learning (Museus & Shiroma, 2022). The Culturally Engaging Campus Environment (CECE) is one model to explain how "culturally engaging campus environments shape students' dispositions, such as academic self-efficacy and motivation, which in turn influence their likelihood of persistence and degree completion" (Museus & Shiroma, 2022). The CECE model has nine indicators that identify culturally engaging cultures that are divided into cultural relevance and cultural responsiveness (Museus & Shiroma, 2022). Cultural relevance is how applicable the environment on campus is to a student's identity and community, and cultural responsiveness are the design and delivery of the support systems on campus that incorporate the diverse needs and norms of a student's community (Museus & Shiroma, 2022). Cultural

relevance can be identified by cultural familiarity (how closely students can connect with faculty, staff and peers that have similar backgrounds), culturally relevant knowledge (how the campus provides opportunities for students to learn from others and exchange knowledge about their community), cultural community service (opportunities that students have to give back to and positively influence their communities), meaningful cross-cultural engagement (opportunities for students to have meaningful interactions with and address social and political issues with people from different backgrounds), and cultural validation (how campuses value students cultural backgrounds and identities) (Museus & Shiroma, 2022). Cultural responsiveness is identified as collective orientations (degree to which shared values exist on campus), humanized educational environments (degree to which students can develop meaningful relationships with those that care about them and are committed to their success), proactive philosophies (the degree to which information and support is distributed to students), and the availability of holistic support (the degree to which students have access to someone on campus that will help with any assistance the student needs) (Museus & Shiroma, 2022).

Employee Culture

Employees within HEI can be categorized as faculty, staff, or administration and in fall 2021, U.S. four-year public universities employed over two million people (*Employees and Instructional Staff*). The interactions that students have with faculty, staff, and administration are crucial for student development, student well-being, student motivation, and student engagement (Snijders, et al., 2022). These trusting and lasting relationships foster long term effects after graduation to include student commitment to the college, alumni loyalty, student employability, and a passion for lifelong learning (Snijders, et al., 2022). The duties of HEI employees are far-reaching and varied with responsibilities to students, the university, their departments, their

geographic community, the research community, and various stakeholders. Since these employees have so much responsibility in so many areas, ensuring that a positive employee culture is encouraged within HEI is crucial.

Faculty

Faculty are educators, and the profession of teaching is challenging and complex and requires content mastery, control of the classroom, organization, and teaching skills (Jamali, et al., 2022). In the U.S., there are approximately 1 million faculty members teaching either part-time or full-time at public four-year universities who have duties that include teaching, research and service to the university and community (*Characteristics of Postsecondary Faculty*, 2022). The assistance that faculty receive is directly related to the support, communication, and partnerships that are fostered within the HEI (Jamali, et al., 2022). Positive culture is created by dynamic and knowledgeable leaders that empower, motivate, and direct faculty by means of professional development, collaboration opportunities, and involvement in university-wide initiatives, and providing regular feedback (Jamali, et al., 2022). Job satisfaction of faculty was found to be greatly influenced by relationships with students and others within the college which is shaped by the "leadership, climate and culture of the university" (Camfield, 2022).

Staff

Staff assist with supporting the HEI mission and enhancing the learning environment of the school. Their responsibilities can include research, engaging in academic activities, administrative duties, acting as business liaisons, supporting campus initiatives and departments, and any other services that assist the college. Across HEI, employment has increased, but there has been a steady decline of support staff since 2013 (Maher, 2022). Staff in HEI are under pressure to become more efficient and effective and have a broad range of tasks and specialties

they are responsible for (Ryttberg & Geschwind, 2021). Maher noted that “support staff are uniquely vulnerable to higher education employment hierarchy, as their positions are ‘not socially coded as valuable within academic prestige culture’” (Maher, 2022; Perry, 2020). Studies have shown that providing a healthy work-life balance, offering recognitions and rewards, providing opportunities for career advancement, and training and development increase staff support and satisfaction (Maher, 2022).

Administration

Campus administrators within HEI aids in running the day-to-day operations of the HEI and include those responsible for overseeing departments, staff, faculty, programs, budgets, facilities, and more. According to McNair, et al., leaders must be “in balance” and must approach leadership as a relationship instead of a position, they must embody the promise of the college, are motivated by a higher purpose and believe the mission of the college drives the numbers, emphasizes collaboration, shares power to spread responsibilities and power, and “understands that personal comfort with diversity is at the center of collaboration” (McNair, et al., 2022). Successful campus administrators must provide effective communication throughout the HEI, be engaged within the campus environment, collaborate with stakeholders both internally and externally, and have disciplinary and technical competencies (Ruben, et al., 2021).

Quality Culture Inventory

One model used to identify various factors of quality culture from an employee’s perspective in higher education is “The Quality Culture Inventory” created by Hildesheim & Sonntag (Hildesheim & Sonntag, 2020). In this model, the authors identified six dimensions to measure quality culture in higher education to include “leadership behavior, communication, engagement, commitment, leadership expectations, and participation” (Hildesheim & Sonntag,

2020). Each of the six dimensions are directly related to the overall employee's view of quality culture within the HEI, their employer, job satisfaction, their level of commitment towards the HEI, career development, and professional exchanges within the HEI (Hildesheim & Sonntag, 2020). At the individual level, it was found that employee commitment, responsibility, and engagement are individual cultural factors and that collective cultural factors include "leadership, communication, participation, shared values, trust, and global aspects" (Hildesheim & Sonntag, 2020).

Leadership behavior directly impacts the performance, actions, and wellbeing of employees. Through their research, Inceoglu, et al., found that indicators of employee wellbeing were mostly measured by job satisfaction, but equally important measures such as work engagement and the success of employees were not as studied or represented in literature (Inceoglu, et al., 2018). An effective leader trusts employees to contribute to the goals of the organization while providing the employee with loyalty and professional respect (Miller & Miller, 2020). While these leaders may have various styles, servant leaders were found to have the highest positive impact on the overall organization. Sendjaya, et al., found that servant leadership led to overall higher "employee satisfaction, commitment, intention to stay, organizational citizenship behavior, in-role performance, team performance, and firm performance" (Sendjaya et al., 2019). The authors explain that servant leadership is a holistic approach that allows both leaders and employees to transform into their highest form of capabilities through "rational, relational, ethical, emotional, and spiritual aspects" (Sendjaya et al., 2019).

Communication within HEI was another factor that the quality culture inventory identified to include information sharing, both formally and informally. In *The Review of*

Economic Studies, the authors found that although effective communications within organizations is crucial to their successes, little research has been directed towards the relationship between communications within the organization and employee productivity (Battiston, et al, 2020). Through their research, Lee et al., found that one-way employees perceive their relationship with their organization is through internal communications (Lee, et al., 2022). These communications also impact job-related outcomes and influence employee's attitude, performances, and perceptions of the organization (Lee, et al., 2022). Quality communications include shared information about the vision, structures, and resources within HEI and information related to the past, present, and the future is successfully transmitted to everyone within the organization (Tapuru, 2019).

Engaged employees are wholly committed to HEI, they are empowered employees, and they have a desire to perform their job duties and tasks (Miller & Miller, 2020). To achieve a high level of employee engagement, leaders must have high-level trust-based relationships with their employees (Miller & Miller, 2020). Engaging employees through effective communication and a positive culture creates transparency and trust that empowers employees to want to be actively engaged within HEI (Azmy, 2019). There are various factors that correlate with employee engagement to include compensation, culture and communications, job environment, supervisor relationship, employee satisfaction, and training / professional development resources (Azmy, 2019).

Employee commitment can be identified as the strength of the employee's identification as it is tied to the organization (Aboramadan, et al., 2020). There is an issue of high employee turnover and low levels of commitment that affects HEI and their overall culture (Chahar, et al., 2021). The U.S. Bureau of Labor Statistics reported a 2.9% turnover rate for educators in 2022

(*Job openings and Labor turnover - November 2022*, 2023). Chahar, et al., found that most training and development programs only focused on developing expertise, performance, and abilities without addressing the need for employees to create their "unique identity" within HEI (Chahar, et al., 2021). Aboramadan et al., found several factors that can increase employee commitment to HEI including well-planned training and development programs that focus on the employee holistically, conducting performance appraisals, providing rewards and compensations when goals are achieved, providing job security, and providing various types of engagement opportunities to employees (Aboramadan et al, 2020).

Through the Quality Culture Inventory, leadership expectations alone were found to negatively affect job satisfaction, but when appropriately combined with positive leadership behavior, the results were shifted. Hildesheim & Sonntag found that leaders that combine positive behavior with employee expectations "have the ability to influence resource allocation, clarify roles and responsibilities, create partnerships, and optimize people and process management" had a significant impact on job satisfaction (Hildesheim & Sonntag, 2020). Leaders can positively express and uphold their expectations by committing to regular feedback, maintaining the resources that are needed for successful job performance, and committing to inclusiveness and fairness in all actions (The Rigorous Leadership Expectations, 2019).

HEI are constantly evolving and changing to meet the needs of all stakeholders, and employee participation within the organization while changes are occurring is crucial. Szelagowska-Rudzka found that through organizational change, involving employees through direct participation in all activities including decision making will result in support, commitment, and reduce any resistance to the change (Szelagowska-Rudzka, 2018). Tran & Pham found that the level of employee participation in decision-making directly impacts job performance,

employee satisfaction, and productivity (Tran & Pham, 2019). Connecting employees to others throughout the HEI through participation allows for informed decision making to improve the overall performance of the organization (Tran & Pham, 2019).

Challenges and Obstacles with Culture Change

HEI transformation into cultures of excellence are difficult in that many people are involved each having their own personal agenda, aspirations, and fears that drive decision making. Any organizational change is a large undertaking that requires leadership commitment and an understanding of each stage of change and how to navigate it successfully. Ruben, et al., note in their book that "the barriers one encounters with change planning and implementation are particularly daunting in colleges and universities, where organizations are loosely coupled, decision-making is often decentralized, and attention to the perspectives of multiple stakeholders is essential to successful change" (Ruben, et al., 2021). Simper, et al., found that there are three main barriers to change within HEI to include historical resistance, university systems, and logistical constraints (Simper, et al., 2022). These barriers could include approval processes and timeliness to make decisions, technological issues, and regulation obstacles (Simper, et al., 2022). Dicker, et al., identified many barriers to providing quality excellence among HEI including poor staff morale, lack of support, excessive micromanagement, lack of facilities, unrealistic expectations, and constant change (Dicker, et al., 2019).

CHAPTER 3

METHODOLOGY

The goal of this dissertation was to determine what cultural factors affect stakeholders to understand cultural excellence factors that can be implemented across HEI that incorporates the needs of each group. All data used in this research is secondary and collected from government entities. Linear regression and correlation data analysis were performed to complete the study.

Restatement of the Problem

The problem for this study is that current literature and models focus on siloed groups as a catalyst for understanding quality cultures, and there is a need for a unified and holistic understanding that encompasses students, faculty, and staff to create cultures of excellence within HEI.

Restatement of the Hypotheses and Research Questions

The research questions guiding this dissertation are listed below along with their corresponding hypotheses:

$H_0$1: There are no significant cultural factors that influence faculty and staff job satisfaction.

Q1: What are the most important cultural factors that influence faculty job satisfaction?

Q2: What are the most important cultural factors that influence staff job satisfaction?

$H_0$2: There are no significant cultural factors that influence student satisfaction.

Q3: What are the most important cultural factors that influence student satisfaction?

$H_0$3: There is no significant correlation between faculty & staff satisfaction and student satisfaction.

Q4: Is there a correlation between faculty satisfaction, staff satisfaction, and student satisfaction?

Research Design

Using the information collected in the review of literature, HEI employee and student culture data would be collected by first identifying cultural factors that affected each stakeholder. Current quantitative survey data was compiled using publicly available secondary data collected from public four-year universities in North Carolina (NC). Independent variables were developed from cultural factors for each stakeholder and dependent variables for satisfaction levels of each stakeholder. Each were analyzed using multiple linear regression, ANOVA, and/or correlation analysis with SPSS v28. Faculty and staff satisfaction regression equations were then developed.

Data Collection

Employees

The employee (i.e., faculty and staff) population sample used for this research are for those working within public four-year universities in North Carolina (NC), either part-time or full-time. Using all data available from the University of North Carolina (UNC) System, the total number of employees in the population was 19,744 with 14,161 being staff members and 5,583 being faculty. Employee data was collected using online publicly available data from the office of the *University of North Carolina System*, which is the governing board that oversees all 17 public four-year universities in NC. The survey instrument used was administered by ModernThink LLC using the ModernThink Insight Survey© which was "developed after a meta-analysis of 'best workplaces' and engagement surveys, and ModernThink's on-going research

studying organizations that have been successful in building special and unique cultures. The survey instrument measures the extent to which employees are involved/engaged in the organization and ultimately, the quality of the employees' work experience. The ModernThink Insight Survey© is tested annually by an independent survey research firm" (ModernThink LLC, n.d.). There are ten core survey dimensions that are measured to include *Collaboration, Communication, Confidence in Senior Leadership, Diversity, Inclusion & Belonging, Faculty & Staff Well-being, Job Satisfaction & Support, Mission & Pride, Performance Management, Professional Development, and Supervisors/Department Chair Effectiveness* (ModernThink LLC, n.d.). There are fifty-five core statements on the survey administered to faculty and staff and an additional five statements presented to only faculty using a 5-point Likert scale to measure agreement to include *Strongly Agree, Agree, Sometimes Agree/Sometimes Disagree, Disagree, Strongly Disagree*, and an additional response option of *Not Applicable* (ModernThink LLC, n.d.). For the faculty, there is an additional twenty-item section gauging satisfaction with benefits using the same 5-point Likert scale to gauge satisfaction with medical insurance, vacation/paid-time-off, tuition reimbursement and remission, maternity leave, and employee recognition programs (ModernThink LLC, n.d.). There are two open-ended questions, and eight self-selected questions regarding demographics (ModernThink LLC, n.d.). There are two pre-loaded demographic items that identify job category and employment status (part-time or full-time). The survey is tailored for HEI to "measure the organizational dynamics and competencies unique to institutions of higher education" (ModernThink LLC, n.d.).

The data collected for each university within NC classified each respondent as an SHRA employee (most staff positions), EHRA Non-Faculty employee (senior, academic, and administrative officer positions as well as non-faculty instructional, research, and information

technology positions), or faculty (teaching positions). ModernThink LLC gathers all responses and categorizes each question within each dimension and calculates percentage of agreement with each category. The cumulative agreement responses for all ten dimensions are then ranked by an ordinal scale as Poor (0%-44%), Warrants Attention (45% - 54%), Fair to Mediocre (55% - 64%), Good (65% - 74%), and Very Good to Excellent (75% - 100%) and the results are released to each university (ModernThink LLC, n.d.).

Students

The student population sample used in this research are those attending public four-year universities in NC, either part-time or full-time. The total number of students sampled was 8,449. Student data was collected using online publicly available data from each individual public four-year university in NC. The National Survey of Student Engagement (NSSE), overseen by the Center for Postsecondary Research at the Indiana University School of Education, was chosen as the standard survey as the "NSSE annually collects information at hundreds of four-year colleges and universities about first year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college" (Center for Postsecondary Research Indiana University School of Education, n.d.). The survey collects student information across five distinct categories including participation in educationally purposeful activities, requirements of the college and how challenging the coursework is, student perceptions of the college environment, and student background and demographic data (Center for Postsecondary Research Indiana University School of Education, n.d.). NSSE uses ten Engagement Indicators classified within four themes that "were rigorously tested both qualitatively and quantitively in a multi-year effort that included student focus groups, cognitive

interviews, and two years of pilot testing and analysis" (Center for Postsecondary Research Indiana University School of Education, n.d.). The themes and their coordinating Engagement Indicators are listed below in Table 2 (Center for Postsecondary Research Indiana University School of Education, n.d.).

Table 2

NSSE Survey Themes and Engagement Indicators

Theme	Engagement Indicator
Academic Challenge	Higher-Order Learning Reflective & Integrative Learning Learning Strategies Quantitative Reasoning
Learning with Peers	Collaborative Learning Discussions with Diverse Others
Experiences with Faculty	Student-Faculty Interaction Effective Teaching Practices
Campus Environment	Quality of Interactions Supportive Environment

Each Engagement Indicator measures diverse aspects of student engagement to better understand important student culture factors. According to NSSE, higher-order learning measures student cognitive tasks that are involved with the application, analysis, judgement, and synthesis of coursework (Center for Postsecondary Research Indiana University School of Education, n.d.). Reflective & Integrative Learning is the extent to which students connect their learning to the world around them by "reexamining their own beliefs and considering issues and ideas from others' perspectives" (Center for Postsecondary Research Indiana University School of Education, n.d.). Learning Strategies are the extent to which students actively engage and

analyze coursework rather than “learning by absorption” (Center for Postsecondary Research Indiana University School of Education, n.d.). Quantitative reasoning is the ability of students to use numerical and statistical information in their everyday lives (Center for Postsecondary Research Indiana University School of Education, n.d.). Collaborative learning involves the extent to which students working together with their peers to solve issues and master problematic material (Center for Postsecondary Research Indiana University School of Education, n.d.). Discussions with Diverse Others includes interactions “across difference, both inside and outside the classroom” (Center for Postsecondary Research Indiana University School of Education, n.d.). Student-Faculty Interaction measures the students’ perceptions of formal and informal connections they have with faculty members as mentors, professors, advisors, and assistance with future plans (Center for Postsecondary Research Indiana University School of Education, n.d.). Effective Teaching Practice gauges students’ belief that their professors are promoting comprehension and learning (Center for Postsecondary Research Indiana University School of Education, n.d.). Quality of Interactions measures the students’ perceptions of “supportive relationships with peers, advisors, faculty, and staff” (Center for Postsecondary Research Indiana University School of Education, n.d.). Supportive Environment is the “students’ perceptions of how much an institution emphasizes services and activities that support their learning and development across a variety of domains, including the cognitive, social, and physical” (Center for Postsecondary Research Indiana University School of Education, n.d.).

Statistical Analysis

For conducting statistical analysis, all students were classified as one variable, “students.” SHRA and EHRA Non-Faculty positions were combined as one “staff” variable and faculty responses were classified using the “faculty” variable. Since EHRA Non-Faculty employees

include both staff and administration, there was no way to separate them for analysis. It was determined that this will not be a longitudinal study, and only the most recent data available from the last five years was chosen to be analyzed. Since college campuses are fluid and ever-changing, only the most recent data was assumed to be applicable to analyze and make recommendations. Each university reported their average response for each dimension, so university-level mean responses were used in the data analysis.

Research summarized in the Review of Literature section assisted in defining variables to be examined. Hypotheses and corresponding questions used to guide the research along with variables used in analysis are below. Along with each variable is an expansion of the statistical analysis conducted using SPSS v28.

$H_0$1/Q1: the independent faculty cultural variables including Performance Management, Supervisor/Department Chair Effectiveness, Communication & Collaboration, Diversity, Inclusion & Belonging, and Mission and Pride were used to predict the dependent variable of Job Satisfaction/Support for faculty. Variables were examined using multiple linear regression, ANOVA, and correlation models.

$H_0$1/Q2: the independent staff cultural variables including Performance Management, Supervisor/Department Chair Effectiveness, Communication & Collaboration, Diversity, Inclusion & Belonging, and Mission and Pride were used to predict the dependent variable of Job Satisfaction/Support for staff. Variables were examined using multiple linear regression, and ANOVA models.

$H_0$2/Q3: the independent variables of academic emphasis, learning with peers, experiences with faculty, and rich educational experiences were used to predict the dependent

variable of student satisfaction. Variables were examined using multiple linear regression and ANOVA models.

$H_0$3/Q4: a correlation test was run to determine the extent to which the independent variables of faculty satisfaction, staff satisfaction, and student satisfaction were correlated.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

The research questions and associated null hypotheses guiding this research are restated:

$H_0$1: There are no significant cultural factors that influence faculty and staff job satisfaction.

Q1: What are the most important cultural factors that influence faculty job satisfaction?

Q2: What are the most important cultural factors that influence staff job satisfaction?

$H_0$2: There are no significant cultural factors that influence student satisfaction.

Q3: What are the most important cultural factors that influence student satisfaction?

$H_0$3: There is no significant correlation between faculty & staff satisfaction and student satisfaction.

Q4: Is there a correlation between faculty satisfaction, staff satisfaction, and student satisfaction?

Faculty Data Analysis and Findings

To better understand the overall data, descriptive statistics were calculated using SPSS with the output from the analysis shown in Table 3. Response guidelines from the ModernThink Insight Survey©, indicated guideline scores that were 75% or more meant that the employee felt exceptional about the cultural variable, 65% - 74% meant that the employee felt fair about the cultural variable, 55% - 64% meant that it was a yellow flag item, 45% - 54% meant it was a red flag item, and < 45% meant it was acute and was considered a severe score (ModernThink, n.d.).

Faculty responses from 17 schools were analyzed, and the overall average faculty satisfaction level is 76%. It was found that faculty felt Performance Management was at an overall 46%, Supervisor/Department Chair Effectiveness has an average of 69%, Communication & Collaboration has an average of 46%, Diversity, Inclusion & Belonging has an average of 59%, and Mission & Pride has an average of 63%. The standard deviations of each variable range from 3.9 to 6.3 indicating that the data is well concentrated around the mean. Communication & Collaboration had the lowest average score with 47% of faculty responding that they were satisfied with the Communication & Collaboration within their university. It also had the highest rate of dispersion showing that the data is more spread around the mean. Skewness of the data ranges from 0.109 to - 0.864 indicating that there is some symmetry within the data but there are some low-valued outliers present. Kurtosis of the data ranges from 1.615 to -1.543 indicating that there are outliers and values clustered around the center, so the distribution is somewhat flat.

Table 3

Faculty Descriptive Statistics

	N	Range	Min	Max	Mean	Std. Error	Std. Dev	Var	Skewness	Std. Error	Kurtosis	Std. Error
PerfMgt	17	19	37	56	46.35	1.519	6.264	39.243	.109	.550	-1.307	1.063
Effectiveness	17	17	59	76	69.24	1.229	5.069	25.691	-.864	.550	-.305	1.063
CommCollab	17	23	32	55	45.59	1.515	6.246	39.007	-.519	.550	-.111	1.063
Diversity	17	23	46	69	58.94	1.273	5.250	27.559	-.397	.550	1.615	1.063
MissionPride	17	24	50	74	63.41	1.529	6.305	39.757	-.344	.550	-.145	1.063
Faculty_Satisfaction	17	11	70	81	75.76	.934	3.849	14.816	-.087	.550	-1.543	1.063
Valid N (listwise)	17											

To test normality, a histogram and a normal P-P plot were constructed in SPSS. The histogram shown in Figure 5 displays the distribution of Faculty Satisfaction scores and presents

the data as normally distributed. The normal P-P plot shown in Figure 6 illustrates the data somewhat following the diagonal line, so the data can be considered normally distributed.

Figure 5

Histogram of Faculty Satisfaction Ratings

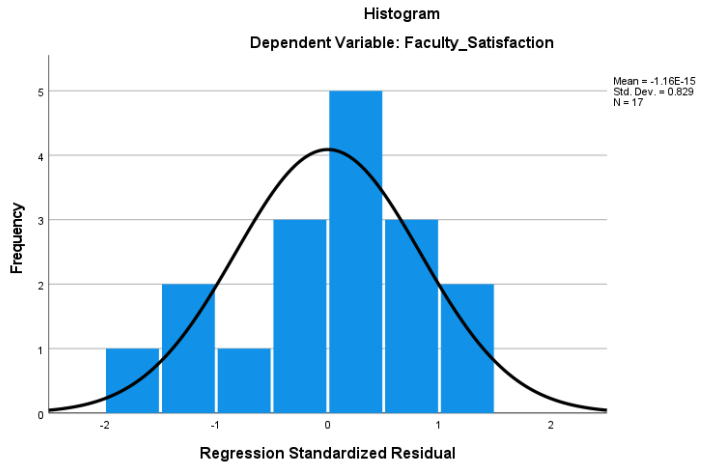
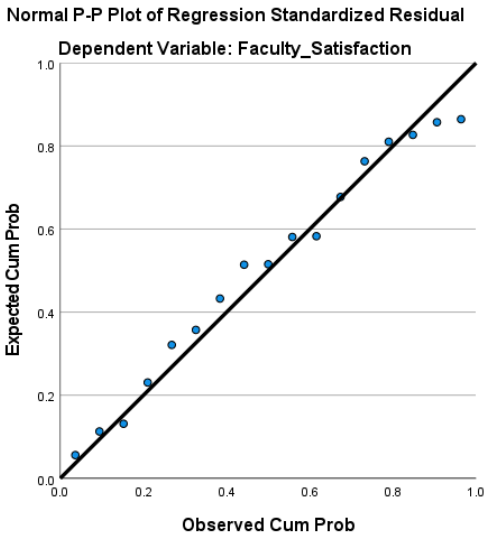


Figure 6

Normal P-P Plot of Regression for Faculty Satisfaction



To answer Research Question #1, a linear regression was run in SPSS using all predictor variables to identify their relationship with the dependent variable. The Model Summary shown in Table 4 has an R Square of 0.761, or 76.1%. This suggests that 76.1% of Faculty Satisfaction

can be explained by the predictors of Mission & Pride, Supervisor/Department Chair Effectiveness, Diversity, Inclusion & Belonging, Performance Management, and Communication & Collaboration.

Table 4

Faculty Model Summary

Model	R	R Square	Adj R Square	Std. Error
1	.872[a]	.761	.653	2.269

Note. a. Predictors: (Constant), MissionPride, Effectiveness, Diversity, PerfMgt, CommCollab

b. Dependent Variable: Faculty_Satisfaction

The ANOVA shown in Table 5 identifies that Mission & Pride, Supervisor/Department Chair Effectiveness, Diversity, Inclusion & Belonging, Performance Management, and Communication & Collaboration jointly significantly predicted Faculty Satisfaction, $F(5, 11) = 7.01$, $p = 0.004$. In other words, the whole model was significant. This ANOVA was automatically generated from the multiple linear regression output in SPSS.

Table 5

Faculty ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	180.427	5	36.085	7.009	.004[b]
	Residual	56.632	11	5.148		
	Total	237.059	16			

Note. a. Dependent Variable: Faculty_Satisfaction

b. Predictors: (Constant), MissionPride, Effectiveness, Diversity, PerfMgt, CommC

The coefficients table shown in Table 6 identifies the individual effect of the independent variables on the dependent variable. Performance Management has a significant effect on Job Satisfaction (b = 0.696, p = 0.005) while controlling for Mission & Pride, Supervisor/Department Chair Effectiveness, Diversity, Inclusion & Belonging, and Communication & Collaboration as their p>0.05. The regression equation can be used to approximate the association between the independent variables and the dependent variable. For faculty satisfaction, the regression equation was determined to be: Faculty Satisfaction = 51.733 + 0.696 (PerfMgt) - 0.026 (Effectiveness) - 0.210 (CommCollab) + 0.034 (Diversity) + 0.018 (MissionPride).

Table 6

Faculty Regression Table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	51.733	12.072		4.286	.001
PerfMgt	.696	.201	1.132	3.457	.005
Effectiveness	-.026	.137	-.035	-.193	.850
CommCollab	-.210	.204	-.341	-1.029	.326
Diversity	.034	.138	.047	.246	.810
MissionPride	.018	.118	.030	.157	.878

Note. Dependent Variable: Faculty_Satisfaction

Since Performance Management was the only variable found to be statistically significant, an additional model was run with it as the only independent variable when determining Faculty Satisfaction. Table 7 below shows the Model Summary, Table 8 shows the ANOVA, and Table 9 shows the Coefficient output when only considering Performance Management. The Model Summary shown in Table 7 has an R Square of 0.738, or 73.8%. This

suggests that 73.8% of Faculty Satisfaction can be explained by Performance Management when analyzed alone.

Table 7

Faculty Model Summary -PerfMgt

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.859[a]	.738	.720	2.035

Note. Predictors: (Constant), PerfMgt

The ANOVA shown in Table 8 identifies that Performance Management significantly predicted Faculty Satisfaction, $F(1, 15) = 42.232$, $p = < 0.001$. In other words, the whole model was significant. This ANOVA was automatically generated from the multiple linear regression output in SPSS.

Table 8

Faculty ANOVA Table - PerfMgt

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	174.927	1	174.927	42.232	<.001[b]
	Residual	62.132	15	4.142		
	Total	237.059	16			

Note. a. Dependent Variable: Faculty_Satisfaction

b. Predictors: (Constant), PerfMgt

The coefficients table shown in Table 9 identifies the individual effect of the independent variable on the dependent variable. Performance Management has a significant effect on Job Satisfaction (b = 0.528, p = < 0.001) The regression equation can be used to approximate the association between the independent variables and the dependent variable, and for the updated

model, the regression equation was determined to be: Faculty Satisfaction = 51.298 + 0.528 (PerfMgt). The R-sq value = 0.738.In the ModernThink Insight Survey©, the factors that are encompassed in Performance Management include promotions within the departments based on an individual's performance, the institution's policies and practices ensuring fair treatment of faculty, staff, and administration, and an appropriate acknowledgment of innovative and high-quality education (ModernThink LLC, n.d.).

Table 9

Faculty Regression Table - PerfMgt

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	51.298	3.797		13.510	< .001
	PerfMgt	.528	.081	.859	6.499	< .001

Note. Dependent Variable: Faculty_Satisfaction

As it was found that all variables when combined explain 76.1% of faculty satisfaction levels which is higher than that with PerfMgt variable only which having R-sq = 73.8%. Because of the higher value of R-sq, the regression equation with all the five variables contributing to faculty satisfaction seems to be more appropriate since each factor overlaps and interact with each other in the context of social sciences and human resources.

Staff Data Analysis and Findings

To better understand the overall data for Staff, descriptive statistics were calculated using SPSS with the output from the analysis shown in Table 10. Staff responses from 17 schools were analyzed, and the overall average staff satisfaction level came out as 62%. It was found that staff felt Performance Management was at an overall 52%, Supervisor/Department Chair Effectiveness has an average of 71%, Communication & Collaboration has an average of 56%,

Diversity, Inclusion & Belonging has an average of 69%, and Mission & Pride has an average of 73%. The standard deviations of each variable range from 4.1 to 6.1 indicating that the data is well spread around the mean. Performance Management had the lowest average score with 52% of staff responding that they were satisfied with the Performance Management within their university. Mission & Pride had the highest rate of dispersion at 6.118 showing that the data is more spread around the mean. Skewness of the data ranges from 0.548 to -0.839 indicating that there is some symmetry within the data. Kurtosis of the data ranges from 0.854 to -0.777 indicating that there are outliers and values clustered around the center, so the distribution is somewhat flat.

Table 10

Staff Descriptive Statistics

	N	Range	Min	Max	Mean	Std. Error	Std. Dev	Var	Skew	Std. Error	Kurt	Std. Error
PerfMgt	17	21	40	61	52.41	1.292	5.328	28.382	-.839	.550	.854	1.063
Effectiveness	17	14	63	77	70.53	.993	4.094	16.765	-.191	.550	-.606	1.063
CommCollab	17	18	46	64	55.71	1.221	5.034	25.346	-.290	.550	-.287	1.063
Diversity	17	21	59	80	68.88	1.361	5.611	31.485	-.006	.550	-.449	1.063
MissionPride	17	20	65	85	72.94	1.484	6.118	37.434	.548	.550	-.756	1.063
Staff_Satisfaction	17	16	55	71	62.06	1.079	4.451	19.809	.192	.550	-.777	1.063
Valid N (listwise)	17											

To test normality, a Histogram and a Normal P-P Plot were constructed in SPSS. The Histogram shown in Figure 7 displays the distribution of Staff Satisfaction scores and presents the data as normally distributed. The normal P-P Plot shown in Figure 8 illustrates the data approximately following the diagonal line, so the data can be considered normally distributed.

Figure 7

Histogram of Staff Satisfaction Ratings

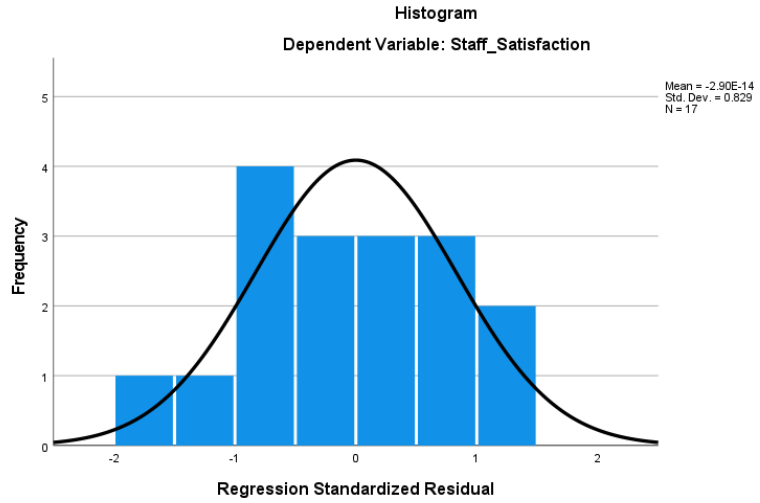
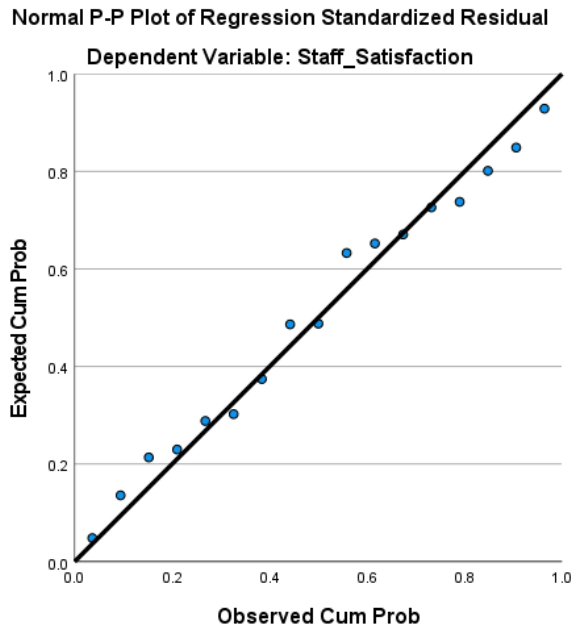


Figure 8

Normal P-P Plot of Regression for Staff Satisfaction



To answer Research Question #2, a linear regression was run in SPSS using all predictor variables to identify their relationship with the dependent variable. The Model Summary in Table

11 shows an R Square of 0.998, or 99.8%. This demonstrates that 99.8% of Staff Satisfaction can be explained by the predictors of Mission & Pride, Supervisor/Department Chair Effectiveness, Diversity, Inclusion & Belonging, Performance Management, and Communication & Collaboration. When comparing the descriptive statistics of staff to faculty, the satisfaction levels of staff were higher in most categories, and the R Square value for staff is higher. This indicates that staff are more satisfied overall with each category studied, and the difference being attributed to Herzberg's duality theory that states there are motivators that lead to job satisfaction that "satisfy the need for growth and self-actualization" to include "advancement, the work itself, possibility for growth, responsibility, recognition, and achievement" (Nickerson, 2023). These motivators correspond with the cultural variables examined within the study. Further investigation infers faculty perceive the added pressures of students as evaluators of performance which staff do not have. This added pressure and the realization of multiple evaluators of performance quality could be a contributor to lower faculty satisfaction levels and higher staff satisfaction levels.

Table 11

Staff Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.998	.997	.260

Note. a. Predictors: (Constant), MissionPride, Effectiveness, Diversity, CommCollab, PerfMgt

b. Dependent Variable: Staff_Satisfaction

The ANOVA shown in Table 12 identifies that Mission & Pride, Supervisor/Department Chair Effectiveness, Diversity, Inclusion & Belonging, Performance Management, and Communication & Collaboration jointly significantly predicted Staff Satisfaction, $F(5,11) =$

934.7, $p = < 0.001$. In other words, the whole model was significant. This ANOVA was automatically generated from the multiple linear regression output in SPSS.

Table 12

Staff ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	316.197	5	63.239	934.710	<.001[b]
	Residual	.744	11	.068		
	Total	316.941	16			

Note. a. Dependent Variable: Staff_Satisfaction

b. Predictors: (Constant), MissionPride, Effectiveness, Diversity, CommCollab, PerfMgt

The coefficients table shown in Table 13 identifies the individual effect of the independent variables and the dependent variable. Diversity, Inclusion & Belonging has a significant effect on Job Satisfaction (b = 0.513, p = < 0.001) and Communication & Collaboration has a significant effect on Job Satisfaction (b = 0.485, p = < 0.001) while controlling for Mission & Pride, Supervisor/Department Chair Effectiveness, and Performance Management. For staff satisfaction the regression equation was determined to be: Staff Satisfaction = -1.056 - 0.023 (PerfMgt) + 0.033 (Effectiveness) + 0.485 (CommCollab) + 0.513 (Diversity) - 0.005 (MissionPride), with R-sq = 0.998.

Since Communication & Collaboration and Diversity, Inclusion, & Belonging were the only two variables found to be statistically significant, an additional model was run with them as the only independent variables when determining Staff Satisfaction. Table 14 below shows the Model Summary, Table 15 shows the ANOVA, and Table 16 shows the Coefficient output when only considering the two independent variables. The Model Summary shown in Table 14 has an R Square of 0.997, or 99.7%.

Table 13

Staff Regression Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.056	1.849		-.571	.579
	PerfMgt	-.023	.035	-.027	-.638	.537
	Effectiveness	.033	.025	.030	1.307	.218
	CommCollab	.485	.026	.549	18.632	<.001
	Diversity	.513	.017	.646	29.870	<.001
	MissionPride	-.005	.023	-.007	-.220	.830

Note. Dependent Variable: Staff_Satisfaction

Table 14

Staff Model Summary – CommCollab and Diversity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.997	.997	.259

Note. Predictors: (Constant), Diversity, CommCollab

The ANOVA shown in Table 15 identifies that Communication & Collaboration and Diversity, Inclusion, & Belonging significantly predicted Staff Satisfaction, $F(2, 14) = 2348.177$, $p = < 0.001$. In other words, the whole model was significant. This ANOVA was automatically generated from the multiple linear regression output in SPSS.

Table 15

Staff ANOVA Table – CommCollab and Diversity

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	315.999	2	158.000	2348.177	<.001[b]
	Residual	.942	14	.067		
	Total	316.941	16			

Note. a. Dependent Variable: Staff_Satisfaction

b. Predictors: (Constant), Diversity, CommCollab

The coefficients table shown in Table 16 identifies the individual effect of the independent variables on the dependent variable. Communication & Collaboration and Diversity, Inclusion, & Belonging have a significant effect on Job Satisfaction (b = 0.486, p = < 0.001) and (b = 0.496, p = < 0.001) respectively. The regression equation can be used to approximate the association between the independent variables and the dependent variable, and for the updated model, the regression equation was determined to be: Staff Satisfaction = 0.853 + 0.486 (CommCollab) + 0.496 (Diversity), with R-sq = 0.997.

Table 16

Staff Regression Table – CommCollab and Diversity

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.853	.896		.951	.358
	CommCollab	.486	.014	.549	33.789	<.001
	Diversity	.496	.013	.625	38.458	<.001

Note. Dependent Variable: Staff_Satisfaction

In the case of Staff Satisfaction, R-sq value for the regression equation with all five variables was 99.8%. This is not so high in comparison to 99.7% for the regression equation with two statistically significant variables. Therefore, Staff Satisfaction = 0.853 + 0.486 (CommCollab) + 0.496 (Diversity) is the equation that seems to be appropriate. In the ModernThink Insight Survey©, the factors that are included in Communication & Collaboration incorporate believing new ideas will be fully considered when offered by staff, discussing and debating issues respectfully to get better results within the university, and having a sense that everyone is on the same team at the university (ModernThink LLC, n.d.). The factors that are included in the Diversity, Inclusion & Belonging category incorporate welcoming diversity in all forms within departments and feeling a sense of belonging at the university. It also includes the university making good and measurable progress towards becoming more diverse and inclusive, the university having clear and effective procedures for dealing with discrimination, and the university being committed to building a culture that actively promotes diversity and inclusion for faculty, staff, and students (ModernThink LLC, n.d.).

Student Data Analysis and Findings

To better understand the overall data, descriptive statistics were calculated using SPSS with the output from the analysis shown in Table 17. Student responses from ten schools were analyzed and the overall average student satisfaction level was calculated to be 83%. It was found that students felt Academic Emphasis was at 79%, Learning with Peers at 54%, Experiences with Faculty at 55%, and Rich Educational Experiences at 57%. The standard deviations of the variables range from 3.7 to 15.9 indicating that the data is extremely spread out around the mean. Learning with Peers had the lowest average score with 54% of students responding that they were satisfied with Learning with Peers within their university, and it also

had the highest rate of dispersion showing that the data is more spread around the mean. Skewness of the data ranges from 0.336 to -0.680 indicating that there may be some symmetry within the data but there are some low-valued outliers present. Kurtosis of the data ranges from -0.039 to -1.197, indicating that there are outliers, and the distribution is somewhat flat.

Table 17

Student Descriptive Statistics

	N	Range	Min	Max	Mean	Std. Error	Std. Dev	Var	Skew	Std. Error	Kurt	Std. Error
AcadEmph	10	17	70	86	78.60	1.591	5.032	25.322	-.051	.687	-.039	1.334
PeerLearn	9	45	30	75	54.28	5.324	15.971	255.069	-.434	.717	-.852	1.400
FacExp	9	45	31	75	55.06	5.154	15.463	239.090	-.680	.717	-.408	1.400
EdExp	8	36	40	76	56.88	4.346	12.293	151.125	.255	.752	-1.197	1.481
Student_Satisfaction	9	11	78	89	82.50	1.233	3.700	13.687	.336	.717	-.945	1.400
Valid N (listwise)	8											

To test normality, a histogram and a normal P-P plot were constructed in SPSS as shown in Figure 9 and Figure 10. The histogram shown in Graph 5 displays the distribution of Student Satisfaction scores and presents the data as somewhat skewed to the left. The normal P-P plot shown in Graph 6 illustrates the data not following the diagonal line, so the data may not be considered normally distributed.

Figure 9

Histogram of Student Satisfaction Ratings

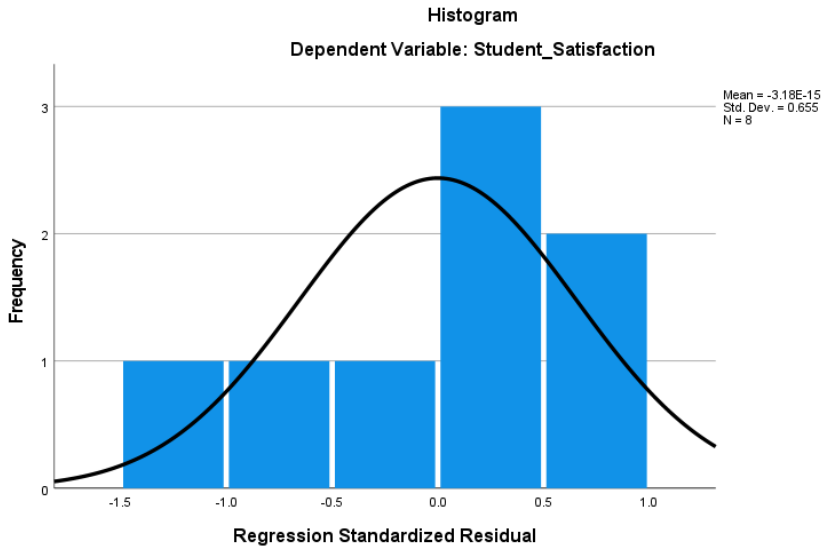
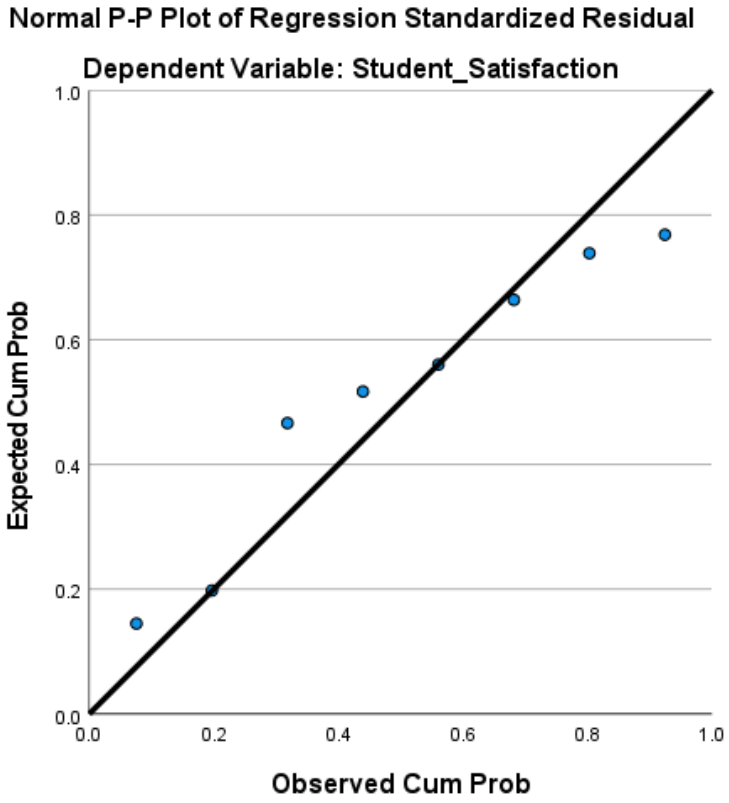


Figure 10

Normal P-P Plot of Regression for Student Satisfaction



To answer Research Question #3, a linear regression was run using all predictor variables to identify their relationship with the dependent variable. The Model Summary shown in Table 18 has an R Square of 0.763, or 76.3%, suggesting that 76.3% of Student Satisfaction can be explained by the predictors of Academic Emphasis, Learning with Peers, Experiences with Faculty, and Rich Educational Experiences.

Table 18

Student Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.874[a]	.763	.448	2.800

Note. a. Predictors: (Constant), EdExp, PeerLearn, AcadEmph, FacExp

b. Dependent Variable: Student_Satisfaction

The ANOVA shown in Table 19 identifies that Academic Emphasis, Learning with Peers, Experiences with Faculty, and Rich Educational Experiences jointly did not affect the dependent variable of Student Satisfaction, $F(4,3) = 2.419$, $p = 0.247$. In other words, the whole model was not significant.

Table 19

Student ANOVA Table

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.858	4	18.964	2.419	.247[b]
	Residual	23.517	3	7.839		
	Total	99.375	7			

Note. a. Dependent Variable: Student_Satisfaction

b. Predictors: (Constant), EdExp, PeerLearn, AcadEmph, FacExp

The regression table shown in Table 20 identifies the linear relationship between the independent variables and the dependent variable. The regression coefficient, or Unstandardized B, shows that Academic Emphasis, Learning with Peers, Experiences with Faculty, and Rich Educational Experiences all have little effect on Student Satisfaction when each variable is considered independently. The p-values for all four variables are all above the threshold of 0.05 for significance, suggesting that none of the variables are statistically significant.

Table 20

Student Regression Table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	50.685	22.625		2.240	.111
AcadEmph	.255	.372	.362	.686	.542
PeerLearn	.228	.230	.904	.992	.394
FacExp	-.135	.189	-.518	-.714	.527
EdExp	.117	.111	.383	1.061	.366

Note. Dependent Variable: Student_Satisfaction

To further investigate individual variables and their effect on Student Satisfaction, a Pearson Correlation was run on all variables, and a separate linear regression was run on each variable. As shown in Table 21, the variables are closely correlated and therefore the linear regression was producing issues with multicollinearity. This was compromising the statistical significance of each variable and its impact on Student Satisfaction.

Table 21

Student Variables Correlation Table

		AcadEmph	PeerLearn	FacExp	EdExp	Student_Satisfaction
AcadEmph	Pearson Correlation	1	.580	.472	.162	.819**
	Sig. (2-tailed)		.102	.200	.702	.007
	N	10	9	9	8	9
PeerLearn	Pearson Correlation	.580	1	.905**	.009	.748*
	Sig. (2-tailed)	.102		<.001	.983	.033
	N	9	9	9	8	8
FacExp	Pearson Correlation	.472	.905**	1	.267	.624
	Sig. (2-tailed)	.200	<.001		.523	.098
	N	9	9	9	8	8
EdExp	Pearson Correlation	.162	.009	.267	1	.311
	Sig. (2-tailed)	.702	.983	.523		.453
	N	8	8	8	8	8
Student_Satisfaction	Pearson Correlation	.819**	.748*	.624	.311	1
	Sig. (2-tailed)	.007	.033	.098	.453	
	N	9	8	8	8	9

Note. **Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Since multicollinearity issues are present, each variable was examined independently. A linear regression first investigated Academic Emphasis. Table 22 and Table 23 demonstrate that Academic Emphasis is statistically significant when considered independently as a predictor of Student Satisfaction. The regression equation can be used to approximate the association between the independent variables and the dependent variable, and for the updated model, the regression equation was determined to be: Student Satisfaction = 36.155 + 0.587 (AcadEmph). The R-square value listed in Table 24 is 0.671.

Table 22

Academic Emphasis ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.478	1	73.478	14.279	.007[b]
	Residual	36.022	7	5.146		
	Total	109.500	8			

Note. a. Dependent Variable: Student_Satisfaction

b. Predictors: (Constant), AcadEmph

Table 23

Academic Emphasis Linear Regression Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.155	12.288		2.942	.022
	AcadEmph	.587	.155	.819	3.779	.007

Note. Dependent Variable: Student_Satisfaction

Table 24

Student Model Summary - AcadEmph

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819[a]	.671	.624	2.268

Note. Predictors: (Constant), AcadEmph

Learning with Peers was found to be statistically significant when considered independently as a predictor of Student Satisfaction as shown in Table 25 and Table 26. For the updated model, the regression equation was determined to be: Student Satisfaction = 72.358 + 0.189 (PeerLearn). The R-square value listed in Table 27 is 0.560.

Table 25

Learning with Peers ANOVA Table

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	55.616	1	55.616	7.626	.033[b]
	Residual	43.759	6	7.293		
	Total	99.375	7			

Note. a. Dependent Variable: Student_Satisfaction

b. Predictors: (Constant), PeerLearn

Table 26

Learning with Peers Linear Regression Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	72.358	3.664		19.750	<.001
	PeerLearn	.189	.068	.748	2.761	.033

Note. Dependent Variable: Student_Satisfaction

Table 27

Student Model Summary – PeerLearn

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748[a]	.560	.486	2.701

Note. Predictors: (Constant), PeerLearn

Table 28 and Table 29 show that although Experiences with Faculty was found to be somewhat statistically significant, it is not a strong predictor of Student Satisfaction as $p > 0.05$. For the updated model, the regression equation was determined to be: Student Satisfaction = 73.580 + 0.163 (FacExp). The R-Square value listed in Table 30 is 0.390.

Table 28

Experiences with Faculty ANOVA Table

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	38.720	1	38.720	3.830	.098[b]
	Residual	60.655	6	10.109		
	Total	99.375	7			

Note. a. Dependent Variable: Student_Satisfaction

b. Predictors: (Constant), FacExp

Table 29

Experiences with Faculty Linear Regression Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	73.580	4.508		16.321	<.001
	FacExp	.163	.083	.624	1.957	.098

Note. Dependent Variable: Student_Satisfaction

Table 30

Student Model Summary – FacExp

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.390	.288	3.179

Note. Predictors: (Constant), FacExp

It was found that Rich Educational Experiences do not have a statistically significant impact on Student Satisfaction as demonstrated in Table 31 and Table 32. For the updated model, the regression equation was determined to be: Student Satisfaction = 76.702 + 0.095 (ExExp). The R-Square value listed in Table 33 is 0.097.

Table 31

Rich Educational Experiences ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.619	1	9.619	.643	.453[b]
	Residual	89.756	6	14.959		
	Total	99.375	7			

Note. a. Dependent Variable: Student_Satisfaction

b. Predictors: (Constant), EdExp

Table 32

Rich Educational Experiences Linear Regression Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	76.702	6.900		11.116	<.001
	EdExp	.095	.119	.311	.802	.453

Note. Dependent Variable: Student_Satisfaction

Table 33

Student Model Summary – EdExp

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.311[a]	.097	-.054	3.868

Note. Predictors: (Constant), EdExp

Since it was found that when all variables are combined, they accurately explain 76.3% of student satisfaction levels, it can be determined that all variables are statistically significant contributors to student satisfaction when considered equally. Since multicollinearity was found to be an issue and the variables were further examined independently, it was found that Academic Emphasis and Learning with Peers are statistically significant predictors of Student Satisfaction.

Faculty, Staff, and Student Correlation Data Analysis and Findings

Correlations between faculty, staff, and students was determined using data gathered from the 17 colleges analyzed and is shown below in Table 34. When analyzing faculty and students, the Pearson correlation coefficient is 0.586 which shows a moderate correlation. The Pearson correlation coefficient between staff and students, and staff and faculty are 0.168 and 0.092 respectively which shows little correlation between those variables.

Table 34

Faculty, Staff, and Student Correlations

		StudentSatisf	FacSatis	StaffSatis
StudentSatisf	Pearson Correlation	1	.586	.168
	Sig. (2-tailed)		.098	.666
	Sum of Squares and Cross-products	109.500	67.000	21.125
	Covariance	13.688	8.375	2.641
	N	9	9	9
FacSatis	Pearson Correlation	.586	1	.092
	Sig. (2-tailed)	.098		.725
	Sum of Squares and Cross-products	67.000	237.059	25.735
	Covariance	8.375	14.816	1.608
	N	9	17	17
StaffSatis	Pearson Correlation	.168	.092	1
	Sig. (2-tailed)	.666	.725	
	Sum of Squares and Cross-products	21.125	25.735	328.941
	Covariance	2.641	1.608	20.559
	N	9	17	17

The findings show a moderately positive correlation between faculty and students, so as one satisfaction level increases, the other increases. It can be determined from these findings that there is a weak positive correlation between staff and students, and staff and faculty. This implies that that when satisfaction levels go up for one or two of the variables, the others go up as well, but the effect is minor. When looking at the 2-tailed significance level, the values are above the threshold of 0.05 to indicate a meaningful impact, and this could indicate that the little to moderate correlation the Pearson correlation is showing is not statistically significant to indicate relationship impacts between the variables.

CHAPTER 5

CONCLUSIONS AND DISCUSSION

Research has shown that HEI cultures directly impact enrollment rates, retention rates, research, internationalization, curriculum, stakeholder satisfaction, community engagement, industry connections and partnerships (Kumar, et al., 2020). The purpose of this study was to identify cultural factors that affect both employees and students so that a synergy can be identified that guides HEI when transforming their campus environment into centers of cultural excellence. This study compared relationships among each stakeholder's independent (predictor) cultural variables and the dependent (outcome) cultural variables and identified how they work together to incorporate value for everyone. The first three research questions aimed to understand what the most important cultural factors are that influence faculty job satisfaction, staff job satisfaction, and student satisfaction. The fourth research question sought to uncover if there was a correlation between satisfaction levels of each group.

Research Question 1: Cultural Factors that Influence Faculty Job Satisfaction

The research question and associated null hypothesis guiding Research Question 1 focused on the cultural factors that influenced faculty job satisfaction and is restated:

Q1: What are the most important cultural factors that influence faculty job satisfaction?

$H_0$1: There are no significant cultural factors that influence faculty and staff job satisfaction.

It was found that of the variables examined, Performance Management was the only one that affected Faculty Satisfaction and therefore answers Research Question 1 (What are the most important cultural factors that influence faculty job satisfaction?). In the context of the survey and study, Performance Management includes promotions within departments being based on an individual's performance, the institution's policies and practices ensuring fair treatment of faculty, staff, and administration, and an appropriate acknowledgment of innovative and high-quality education (ModernThink LLC, n.d.). A study conducted by Decramer, et al. (2013), found that consistency within performance management practices is crucial to employee satisfaction. These consistencies include "monitoring and formal evaluation of research, goal-setting and formal evaluation of research and the extent [in which] research goals, monitoring of research, and research evaluation are linked" (Decramer, et al., 2013). Another factor linked to higher satisfaction levels in the context of performance management includes the level of control over non-tenured faculty. Non-tenured faculty were found to have a need for a higher level of guidance to include having "clear procedures concerning planning, monitoring, and evaluation" by their supervisors (Decramer, et al., 2013). Faculty having a positive opinion of two-way communication regarding performance management were found to have higher levels of satisfaction (Decramer, et al., 2013). HEI's understanding and practicing these performance management techniques will have a positive impact on faculty satisfaction levels.

Research Question 2: Cultural Factors that Influence Staff Job Satisfaction

The research question and associated null hypothesis guiding Research Question 2 focused on the cultural factors that influenced staff job satisfaction and is restated:

Q2: What are the most important cultural factors that influence staff job satisfaction?

$H_0$1: There are no significant cultural factors that influence faculty and staff job satisfaction.

Communication & Collaboration and Diversity, Inclusion & Belonging were the two variables that had an impact on Staff Satisfaction and therefore answers Research Question 2 (What are the most important cultural factors that influence staff job satisfaction?). In the ModernThink Insight Survey©, these factors include believing new ideas will be fully considered when offered by staff, discussing and debating issues respectfully to get better results within the university, having a sense that everyone is on the same team at the university, incorporating welcoming diversity in all forms within departments, feeling a sense of belonging at the university, the university making good and measurable progress towards becoming more diverse and inclusive, the university having clear and effective procedures for dealing with discrimination, and the university being committed to building a culture that actively promotes diversity and inclusion for faculty, staff, and students (ModernThink LLC, n.d.).

Further elaborating on the factors positively impacting Communication & Collaboration, a study conducted by Delport found that there are key items that HEI must consider including setting clear guidelines when social or personal messages are communicated, having measurements to increase ownership of communications, include evaluations of communication effectiveness on performance evaluations, including communication assessments on manager's performance evaluations, and establishing a reward that recognizes effective communication performance (Delport, 2020). HEI must emphasize a positive environment that fosters effective communication and collaboration among staff to increase satisfaction levels.

A study conducted by Stanley, et al., found that Diversity, Inclusion & Belonging initiatives must have "committed leadership; shared responsibility; a comprehensive scope of

goals and activities; resources; focused educational development opportunities; a review of policies, processes, and practices; and assessment of changes that are occurring, along with the development of plans for the future" (Stanley, et al., 2019).

Research Question 3: Cultural Factors that Influence Student Satisfaction

The research question and associated null hypothesis guiding Research Question 3 focused on the cultural factors that influenced student satisfaction and is restated:

Q3: What are the most important cultural factors that influence student satisfaction?

$H_0$2: There are no significant cultural factors that influence student satisfaction.

Academic Emphasis and Learning with Peers were the two variables that were found to significantly predict Student Satisfaction and answer Research Question 3 (What are the most important cultural factors that influence student satisfaction?). According to the Engagement Indicators on the NSSE, Academic Emphasis includes "Higher-Order Learning: How much students' coursework emphasizes challenging cognitive tasks such as application, analysis, judgement, and synthesis. Reflective & Integrative Learning: When students make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives. Learning Strategies: Actively engaging with and analyzing course material rather than approaching learning as absorption. Quantitative Reasoning: The ability to use and understand numerical and statistical information in everyday life" (Center for Postsecondary Research Indiana University School of Education, n.d.).

The Engagement Indicators on the NSSE explain that Learning with Peers includes "Collaborative Learning: Collaborating with peers in solving problems or mastering difficult material, [and] Discussions with Diverse Others: Interactions across difference, both inside and outside the classroom" (Center for Postsecondary Research Indiana University School of

Education, n.d.). In a study conducted by Pålsson, et al., it was found that learning with peers improved student self-efficacy, created a higher level of critical thinking, improved competence, improved self-determination, and improved self-reflection (Pålsson, et al., 2017). It can be concluded that HEI that encourage an increased academic emphasis and increased peer-learning will have a higher rate of student satisfaction.

Research Question 4: Satisfaction Level Correlations Between Faculty, Staff, and Students

The research question and associated null hypothesis guiding Research Question 4 focused on the correlations between satisfaction levels between faculty, staff, and students and is restated:

Q4: Is there a correlation between faculty satisfaction, staff satisfaction, and student satisfaction?

$H_0$3: There is no significant correlation between faculty & staff satisfaction and student satisfaction.

After running a Pearson correlation test, it was determined that there was moderate positive correlation between faculty satisfaction levels and student satisfaction levels. When faculty satisfaction levels rise, so do student satisfaction levels, and vice versa. This finding validates and confirms that student satisfaction levels and faculty satisfaction levels have a positive relationship. According to research conducted by Mihanović, et al., "the greater the students' satisfaction with their faculty facilities, faculty bodies, and faculty services, the greater the overall satisfaction with student life is" (Mihanović, et al., 2016). There was no correlation found between staff and faculty and staff and students, and the satisfaction levels of each group do not affect each other as one changes. This is supported by research that found factors not

related to the organizational culture as impactful to students and faculty including staff approachability and support (Jereb, et al., 2018).

Limitations

This research was limited by data collected using the geographic location of the universities as well as the type of university analyzed. This provided a smaller sample size population used for analysis and discussion. Since cultural variables vary so widely within HEI and subcultures within HEI are vastly different, only four-year public schools were analyzed to provide an overall understanding and recommendation from those institutions.

Another limitation of the study was the restricted access to the original source data which narrowed the amount of analysis that could be performed. Since access to raw data was restricted, the study focused solely on the averaged data provided. This not only limited the study, but it also limited the method of evaluation that was performed on the data.

The study was limited to post-COVID-19 data which limited the timing of available data. It was determined that pre-COVID-19 data was invalid for the research topic and the focus would solely be on post-COVID-19 statistics. Since only one cycle of surveys was available, the data was limited, and time series analysis was not possible.

The research topic is very specific in seeking to understand what cultural factors within HEI affect satisfaction levels amongst internal stakeholders, and the amount of relevant recent research is limited on this topic.

Recommendations for Future Research

The findings in this research may assist HEI in creating and sustaining quality cultures within their organizations. Although these findings have assisted in a better understanding of the

cultural factors that affect satisfaction levels, further research is needed to broaden the scope of quality cultures within HEI.

One area for future research includes quality cultures of online and e-learning courses. The factors that affect faculty, staff, and students in traditional on-campus environments may be different than those within an online course and it might be a good area of study to explore. Another area for future research includes expanding this study into private for-profit HEI and community colleges to understand what the important factors for satisfaction are with respect to their quality cultures.

Another focus area for future research can be a study adding Carnegie Classification as a variable to better understand if variables differ between and within each classification. In 2024, new Carnegie Classifications will be unveiled and HEI will be re-ranked based on the new classification system (*Future of the Carnegie classifications to be explored at ACE2023,* 2023). Once that is released, future research could be conducted using the new classification system.

External stakeholders were not incorporated into this study. Further research might include external stakeholders to better understand how cultural factors within HEI affect them, and how factors within HEI are affected by external stakeholders.

Future research could also include replicating this study using data over a several-year span to understand if the cultural factors identified in this study change over time.

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