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Relationship Between Perceived Quality of Student Learning Experience, Perceived Quality of Mentoring, and Student Satisfaction

George Edwin Thorpe
Walden University

Walden University

College of Management and Technology

This is to certify that the doctoral study by

George E. Thorpe

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Dr. WooYoung Chung, Committee Chairperson, Doctor of Business Administration Faculty

Dr. John Bryan, Committee Member, Doctor of Business Administration Faculty

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Walden University
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Abstract

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MBA, University of Lagos, 1978

BSc, University of Ibadan, 1976

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Abstract

Entrepreneurship education (EEd) is essential to addressing youth unemployment, which reached 30% in Nigeria in 2018. Understanding the role of learning experience and mentoring is vital for EEd leaders to enhance student satisfaction from self-employment after graduation. Grounded in the direct performance-satisfaction link model of the expectancy disconfirmation theory of customer satisfaction and Kram's mentor role theory, the purpose of the quantitative correlation study was to examine whether the perceived quality of learning experience and mentoring predicted student satisfaction in EEd institutions. The participants were 47 students of two EEd institutions in Lagos who had completed at least 50% of their EEd program when taking the online survey. The results of the multiple linear regression were significant, $F(2, 44) = 19.410$, $p < .001$, adj. $R^2 = .45$. In the final model, only the quality of mentoring was significant, $\beta = .575$, $p < .001$. A key recommendation is for EEd institution leaders to enhance student satisfaction by providing quality mentoring support. The implication for positive social change includes the opportunity for EEd graduates to be financially independent, their organizations to be more competitive, innovative and sustainable, and their communities more willing and able to take risks to overcome global challenges.

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Dedication

This doctoral study report is dedicated to my wife, Oludewa, who helped me overcome the steep learning curve that Walden independent scholar's work demanded of me. After a sit-down "you can do it" counselling session (I failed the first course), she has been a constant source of support and encouragement during the numerous challenges of my graduate studies. Thanks, my dear. This work is also dedicated to the blessed memory of my mother, Uyi, whose good examples and unconditional love have taught me to work hard for the things that I aspire to achieve. Mama, I made it and was it not hard?

Acknowledgments

I would like to acknowledge my first committee chair, Dr. Lisa Pearo, for her guidance, expertise, and input to completing this doctoral study especially in patiently uplifting my scholarly writing skills at the literature review and proposal stages of my work. Dr. Pearo was also so gracious with considerations when I had to take off time to attend to the funeral rites of my mother. Dr. Pearo was right in advising that I focus my problem statement which is why I will be graduating after all within budgeted time and cost. Dr. WooYoung Chung took over as my chair at the data collection and analysis stages and brought renewed impetus to my work apart from providing good suggestions on statistical analyses and reporting of my research findings.

On several occasions, I relied on a peer mentor, Rosalie Rivera, to assist with the mechanics of SPSS and custom formatting in word, things that I struggled with quite a bit. She was responsive whenever I cried for help. Lastly, I am most grateful to the Center Directors of the two partner organizations whose students were surveyed for this study. The findings of this research project, which will be presented to them in summary form, is my modest way of showing appreciation for their support.

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Section 1: Foundation of the Study

Introduction

To address the problem of graduate unemployment, the Federal Government of Nigeria in 2006 issued a presidential directive through the Federal Ministry of Education making entrepreneurship education (EEd) compulsory for students of higher education institutions (HEIs) with effect from the 2007/2008 academic session (Akinboade, 2014). The history of Nigeria's educational policy may be traced back to the colonial period when policy makers used the educational policy to provide the colonial masters with well-equipped human resources to aid the effective administration of the country (Agbonla$_{ho}$r, 2016). Educators simply applying Western standards in a post-colonial context do not address African problems, nor do the educators examine the educational needs in a developing country environment (Darley & Luethge, 2019), especially in EEd for business startups. There is little impact of EEd on graduate unemployment, no clarity on target outcomes, and HEIs lack the capacity to deliver on the somewhat limited EEd curriculum in Nigeria (Agbonlahor, 2016).

In contrast with an institution-centered ivory tower stance since colonial days in Nigeria, Senior et al. (2017) presented a new student-oriented consumerist higher education age. Consistent with a new consumer orientation in higher education, Huang et al. (2020) introduced teacher and student satisfaction as contemporary practice on a sustainable development model of EEd in China. Mwiya et al. (2017) reported that HEIs in developing countries are making strides on student perception towards EEd. In this study, I examined the relationship between the quality of student learning experience,

quality of mentoring, and student satisfaction in a developing country context in general and Nigeria in particular.

Background of the Problem

Youth unemployment has reached epidemic proportions in developing countries (Oluwatayo & Ojo, 2018), where resources are scarce. The youth unemployment rate in 2018 was 30% (NBS, 2018). The providers of EEd, mostly tertiary institutions, have been thrust to the vanguard of efforts to reverse youth unemployment by producing entrepreneurs and enhancing employability skills (Agbonlahor, 2016; Ezeani, 2018). The numerous EEd stakeholders such as students and their parents and sponsors, the EEd institutions faculty and admin, and government/policymakers have diverse interests and priorities. EEd leaders have identified students, even alumni, as essential stakeholders and primary customers in the higher education enterprise (Rafik & Priyono, 2018).

As leaders of HEIs and the EEd programs they offer face increasingly local and globalized competition, greater emphasis has been placed on student satisfaction (Turkyilmaz et al., 2018). A high student-as-customer satisfaction level could increase student acquisitions, course completion rates, student loyalty, repeat purchase, and referral business (Rafik & Priyono, 2018). Leaders of EEd institutions that cultivate a reputation for producing graduates who become successful entrepreneurs may generate new income streams from alumni as lifelong learners (Rafik & Priyono, 2018). Student satisfaction is arguably a significant driver of revenue and sustainability for EEd business, and EEd institution leaders should be interested in understanding the antecedents and determinants of student satisfaction and how they relate.

There are few empirical studies of variables such as quality of student learning experience, mentoring, and funding availability as they impact student satisfaction in EEd institutions. There is a gap in the literature for developing countries where the problem and resource limitations are most severe. This study contributes to EEd institution leaders' understanding of the relationship between two of these variables and EEd student satisfaction in Nigeria.

Problem Statement

For HEIs, student dissatisfaction threatens financial sustainability as satisfaction drives student retention, word of mouth, and institutional reputation and thus influences institutions' market competitiveness (Paul & Pradhan, 2019). HEIs must maximize student satisfaction because student satisfaction directly and significantly affects the institution's reputation. In a recent quantitative study conducted in higher education, student satisfaction accounted for over 70% of the mediated effects of academic service quality on institution reputation (Moslehpour et al., 2020, p. 11). The general business problem is that poor student satisfaction hurts EEd institution revenue and sustainability through its impact on reputation. The specific business problem is that some leaders of EEd institutions in Nigeria do not know the relationship between the perceived quality of the student learning experience, perceived quality of mentoring, and student satisfaction.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between the perceived quality of the student learning experience, perceived quality of mentoring, and student satisfaction in EEd institutions in Nigeria. The

independent variables were measures of perceived performance: the perceived quality of student learning experience and perceived quality of mentoring. The dependent variable was student satisfaction. Student satisfaction in higher education is tightly linked with attraction and retention, and hence, a key driver of organizational sustainability. The target population I applied estimates and inferential analysis to was students of EEd institutions and programs in Nigeria. Leaders of EEd institutions can use the findings of this study to improve their student satisfaction for a positive impact on their organizations' revenue, reputation, and sustainability. The graduates of EEd institutions and programs in Nigeria may also be more successful in starting a business of their own, becoming less dependent on their family, and being transformed into job creators to benefit their community and the national economy (Ajuwon et al., 2017).

Nature of the Study

The three methodologies available to doctoral study researchers are qualitative, quantitative, and their combination, mixed. I chose a quantitative method for this study to focus on using data to test the applicability of satisfaction theory with EEd organizations. Quantitative methods are used to evaluate the interrelation between variables calculated numerically and analyzed using a range of statistical and visual techniques (Saunders et al., 2016). A qualitative method is used to describe or explore a phenomenon (Saunders et al., 2016) and is not suitable for examining the relationship between variables, as was required to answer the research question in this study. I did not use a mixed-method because qualitative answers were not required to achieve my research objective.

I chose a correlational design and used quantitative data to show the strength of the relationship between two variables. Green and Saikind (2017) cautioned that a correlational design does not presume a cause and effect. The alternative quantitative designs that I considered were experimental and quasi-experimental. I rejected these designs because they require that the environment be controlled to eliminate extraneous variables and the independent variable isolated and manipulated to observe its effect on the dependent variable. Unlike experimental design that establishes a cause and effect, this study only identified independent variables and their relationships with the dependent variable.

Research Question

Research Question (RQ): What is the relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction among students of EEd institutions in Nigeria?

Null Hypothesis (H_0): There is not a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

Alternative Hypothesis (H_a): There is a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

Theoretical Framework

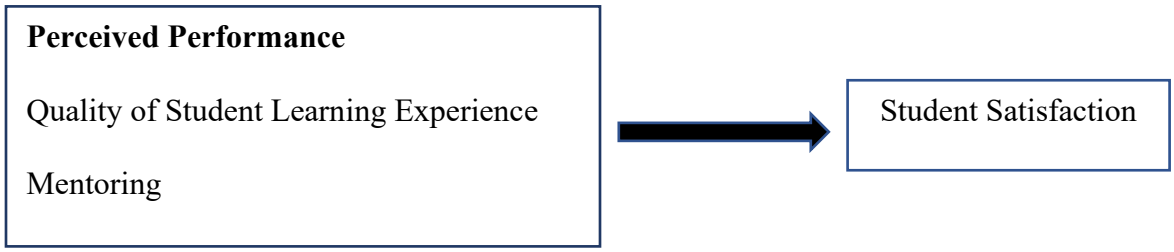
I used the direct performance-satisfaction (DPS) link model (Churchill & Surprenant, 1982) of the expectancy disconfirmation theory (EDT) (Oliver, 1977, 1980)

and Kram's (1983) mentor role theory as the theoretical models for this study of student satisfaction in EEd institutions in Nigeria. The constructs for the DPS link model are perceived performance and customer satisfaction. Kotler (1997) defined customer satisfaction as a feeling of pleasure or disappointment resulting from comparing a product's perceived performance concerning the expectations of a buyer. Perceived performance, as a direct causal antecedent of satisfaction (Waluya et al., 2019), measures how well the service level delivered matches customer expectations (Parasuraman et al., 1985). The variables for the perceived performance construct were the independent variables in this study: the perceived quality of student learning experience and the perceived quality of mentoring. The quality of the learning experience and mentoring are of interest to students of EEd institutions (Agbonlahor, 2016; Akhmetshin et al., 2019; Byun, 2018). The concept of perceived service quality is a global dimension concerning the overall evaluation of a service organization, whereas customer satisfaction deals with a specific consumption experience (Arif et al., 2013). The quality of the learning experience is directly linked to perceived service quality, as an overall evaluation of the service experience in the DPS link model (Arif et al., 2013). Kram's mentor role theory (1983) is used to understand the impact of mentoring quality on mentee perception of the quality of school performance. Kram observed that mentorship is an intense, complex, and multifaceted interpersonal relationship that can significantly enhance development in the mid-career stage of a more experienced individual. The dependent variable in this study was customer or student satisfaction.

As applied to this study, the DPS link model of EDT holds that the quality of student learning experience, as measured by an instrument based on one of the most popular student satisfaction measures in higher education marketed by Noel-Levitz (Hsu et al., 2016) and the quality of mentoring as measured by an adapted Dreher and Ash (1990) survey (Tenenbaum et al., 2001) to both account in part for the satisfaction of students of EEd institutions and programs in Nigeria. With the higher education sector becoming more competitive, higher student satisfaction helps attract and retain quality students who enhance the reputation and standing of the HEI (Arif et al., 2013). Figure 1 is a graphical depiction of the DPS link model of EDT as it was applied to examine student satisfaction.

Figure 1

DPS Link Model of EDT for Student Satisfaction



Churchill and Surprenant Jr. (1982) modeled EDT for two types of products, a durable and a nondurable good, and found that for the former, relatively expensive, high-involvement, and infrequently purchased goods, the DPS link accounts for most of the variation in satisfaction. Rafik and Priyono (2018) demonstrated a DPS link model of EDT for a service (higher education) business. I adopted the DPS link model of EDT to study student satisfaction with EEd because higher education is a high involvement

purchase. Instead of implying expectations or the disconfirmation of expectation as in EDT, the DPS link model of EDT directly relates perceived product performance to customer satisfaction.

Operational Definitions

Business Sustainability: The strategy that helps a business meet its current requirements without compromising its ability to meet future needs. There is an emerging consensus about the triple dimensions of sustainability, also referred to as the triple bottom line, namely economic, social, and environmental sustainability (Tur-Porcar et al., 2018).

Customer (student) satisfaction: Customer satisfaction measures how products and services supplied by a company meet or surpass customer expectations (Mwiya et al., 2017).

Developing countries: Countries are classified based on their level of development as measured by per capita gross national income (GNI). Based on the World Bank categorization in the 1980s, the bottom two of the five income-level categories may be described as developing countries and includes the world's 90 poorest countries (Fialho & Bergeijk, 2017).

Entrepreneurship: Entrepreneurship is the pursuit of opportunities beyond resources controlled. The pursuit implies a relentless focus, opportunity implies a truly novel offering, and beyond resources controlled implies a resource constraint (Eisenmann, 2013).

Entrepreneurship education: The narrow definition equates EEd with a specific course aimed at training young people to start their own business, while the broader definition equates EEd with general skills that all students should learn and which are construed by educationists as helpful for preparation for life in general (Fayolle & Gailly, 2008; Jones et al., 2017; Mwasalwiba, 2010)

HEI: HEI covers all post-secondary or tertiary institutions of which the university is a part, e.g., polytechnics, colleges of education, professional institutes (Alemu, 2018)

Mentorship in education: As the guidance process that takes place between a mentor as a wise and trusted counselor or teacher, and a protégé as an apprentice (Friday et al., 2004)

Student learning experience: Student active learning is the active construction of a new sense of reality. Learning occurs when students participate in cognitively demanding tasks, get meaningful feedback, and have the opportunity for real-world application (Holland, 2018).

Assumptions, Limitations, and Delimitations

Assumptions

An assumption is an assertion that is accepted to be true and accurate without proof. Delin (1994) further distinguished *used assumptions* as assumptions that the argument creator uses or makes in forming an argument. In this study, I assumed that students who have covered 50% of their EEd course at the time of filling out the questionnaire can provide a credible assessment of the quality of their learning experience and quality of mentoring. I also assumed that participants in this study

answered survey questions honestly and factually after being assured that their identities and responses will be confidential and kept secure.

Limitations

The limitations of a study are its flaws or shortcomings, which might result in misleading results if not declared (Greener, 2018). Greener discussed limitations affecting internal and external validity and how identifying limitations and explaining to the reader what impact these limitations have on the study results not only demonstrate rigor but also give authors a chance to identify clear directions for future research. The quantitative methods cannot examine the depth and underlying detail of participants' responses; thus, the current study traded off a degree of richness within the results that the association did not occur by chance alone.

Delimitations

The delimitations of a study define the topic and boundaries of the research problem to be investigated, the factors and variables not to be included in the investigation which may have quantitative or qualitative traits (Loecher, 2000). Limitations are what the researcher cannot do and delimitations are what the researcher will not do, as in Ertz (2019), who delimited the research field under study focusing on a specific discipline in medicine, in a particular segment of the economy and industry. This study was about students in an institutional setting. The study did not include the more pervasive entrepreneurial learning, a lifelong experience that goes on in all manner of circumstances in the broader society. The study was delimited to Lagos, where both partner organizations are based. The differences in professional practice in EEd

institutions across Nigeria were not a significant issue in my study, particularly relative to the theory and its construct in my study.

Significance of the Study

Contribution to Business Practice

A significant identification of the correlates to student satisfaction could help leaders of EEd institutions identify and influence student satisfaction determinants. Leaders of EEd institutions that are more responsive to student needs and expectations will enjoy higher levels of new student acquisition, course completion rates, student loyalty, repeat purchases, and referral business, resulting in superior revenues, market share, and sustainability. Leaders who cultivate a reputation for producing successful entrepreneurs may also generate additional income streams from alumni as lifelong learners.

Implications for Social Change

Oluwasanya et al. (2018) presented EEd as a solution to the youth unemployment problem. There is evidence that even in the most challenging environments, graduates of EEd programs can become less dependent on their families by being self-employed. They can spark innovation and create jobs that reduce unemployment to the benefit of their community and the broader economy (Kolade, 2017). The findings from this study may unleash the entrepreneurial potential of millions of young people as job creators rather than job seekers. The resultant reduction in youth unemployment will significantly contribute to the mitigation of poverty, rural to urban drift, illegal migration abroad, youth restiveness, and insecurity.

Review of the Professional and Academic Literature

Literature Review Opening Narrative

This literature review includes background and substantiation of the basis of inquiry for the primary research question: What is the relationship between the perceived quality of the learning experience, the perceived quality of mentoring, and student satisfaction in EEd institutions? I placed this research study within the context of existing literature, making a case for why further study is needed. The literature review began with an overview of the theoretical models for customer satisfaction and mentoring in the HEI setting. The review next included a critical analysis and synthesis of literature about student satisfaction in EEd institutions globally and in developing countries. The review content consisted of the nature, evolution, and challenges of EEd with its various stakeholder groups and the growing recognition of the student as the primary customer of HEIs. Apart from the dependent variable, student satisfaction, my review also covered the quality of student learning experience and the quality of mentoring (independent variables) in an EEd setting.

Strategy for Searching the Literature

The compiled literature included over 270 peer-reviewed scholarly journal articles and publications of reputable multilateral organizations such as the World Bank, OECD, and the EU. I also obtained documents from online databases available through the Walden University Library, with specific databases used including (but not limited to) ProQuest, Emerald Insight, ERIC and EBSCO. I exploited the increasingly rich Google Scholar database and search capabilities to identify journal articles relevant to the study

topic. I used the following keywords and word combinations for the search process: developing countries, entrepreneurship, entrepreneurship and entrepreneurial education and or training, customer satisfaction, customer satisfaction theories, student satisfaction, student learning experience, mentoring, and student mentoring. My search was limited to peer-reviewed journal articles published in 2017 to the present (85%) except for articles cited for their seminal value, such as a breakthrough theory or thinking.

Table 1

Review of Sources

Reference Type	Total	
Number of articles cited in the literature review	225	100%
Peer-reviewed journal articles in the literature review within five years to research completion (2017 – 2021)	193	85%
2017	62	28%
2018	43	19%
2019	45	19%
2020	30	13%
2021	13	5%

Application to the Applied Business Problem

The purpose of this study was to examine the relationship between the perceived quality of student learning experience, the perceived quality of mentoring, and student satisfaction in EEd institutions in Nigeria. Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectations (Mwiya et al., 2017). The higher the number or proportion of customers whose reported experience with the firm, its products, or services meets or exceeds expectations, the higher the customer satisfaction level. Marketers and business owners use measurements

of customer satisfaction to manage and improve their businesses. By accommodating student customers' expectations for the perceived quality of learning experience and the perceived quality of mentoring, EEd institutions in Nigeria will achieve higher revenue, reputation, and sustainability. My study addressed the research question and tested these hypotheses:

RQ: What is the relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction among students of EEd institutions in Nigeria?

H_0: There is not a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

H_a: There is a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

Because of the importance of customer satisfaction to corporate performance, the concept and operationalization of customer satisfaction have been of much interest and provided a fertile ground for researchers to conduct theoretical and empirical studies to benefit the academic and professional communities. What followed was a review of the literature on (a) theoretical models for this doctoral study, namely the EDT and the DPS link model of EDT and the Kram mentor role theory (KMT); (b) student satisfaction with EEd institutions; and (c) the quality of learning experience and mentoring in relation to student satisfaction in EEd institutions.

Theoretical Framework: DPS Link Model of EDT

Ganiyu (2017) maintained that numerous theories had been used to comprehend the process through which customers form satisfaction judgments. Some of these approaches are variants of the consistency theories that focus on the nature of the process of matching and comparing the consumer's post-usage behavior. The customer satisfaction studies reviewed cover diverse contexts. The customer satisfaction studies reviewed cover IT support, logistics, HEIs and students, online panel, continually delivered business service, automobiles, flu vaccination scheme, e-commerce, wine festival, restaurant chain, retailer/DIY, hospitality and tourism, stock market trading and B2B commerce. The more versatile and widely reported consistency theory of customer satisfaction is the EDT and the model adopted for this study is the DPS link model of the EDT.

EDT

Oliver (1980, 1977) laid the foundation for EDT by hypothesizing that post-purchase or usage satisfaction is a function of expectation, perceived performance, and disconfirmation of beliefs. Oliver posited that post-purchase satisfaction would result if a product or service outperforms expectations (positive disconfirmation). Still, if the product or service falls short of expectations (negative disconfirmation), the consumer is likely to be dissatisfied. The EDT is a well-established and widely utilized theory of customer satisfaction because it is broadly applicable, verifiable, and adaptable across numerous contexts.

The EDT is one of the more versatile theories in consumer behavior and customer satisfaction. The EDT has been tested and validated across various contexts. The contexts that I reviewed included individuals and product categories in a national index for customer satisfaction (Yazdanpanah & Feyzabad, 2017), in products with different levels of involvement (Calvo-Porral et al., 2018), for examining the antecedents of customer satisfaction in the tourism industry (Teviana et al., 2017), citizen satisfaction with public services (Dahlström et al., 2018), in e-commerce using text mining techniques (Hong et al., 2019) and for customer delight as an extension of satisfaction in EDT (Oliver et al., 1997). I reviewed other contexts such as in higher education (Vigneshwaran & Mathirajan, 2021), automobiles (Oliver, 1977), investigating satisfaction and the satisfaction-loyalty link in DIY and other retailer settings (Ying, 2021), for products having perceived necessity and value (Wang et al., 2018), stock market trading scenarios (Zhan et al., 2020), in massive open online courses (MOOC), and for global audiences (Lu et al., 2019).

Since Oliver (1980, 1977) developed the structure of the EDT, customer satisfaction theoreticians and professionals have adopted and applied it successfully in various situations. EDT's versatility as a customer satisfaction theory is evident in the extent to which theoreticians have adopted different approaches and successfully adapted the same to even more challenging contexts. EDT is flexible to assimilation effects – when unconfirmed discrepancies are absorbed by aligning perceptions with expectations (Anderson, 1973; Rixom et al., 2019; Zhang et al., 2019), and to asymmetry effects, when increasing performance or disconfirmation does not have a corresponding increase

in satisfaction (Davrasa, & Caber, 2019). The EDT assimilation and asymmetry effects have been successfully accommodated in customer satisfaction studies coping with more demanding contexts. While assimilation theory posits that consumers seek to minimize the discrepancy between expectation and performance, asymmetry effects reflect the lack of equality or equivalence between attributes and overall satisfaction (Jin et al., 2017). EDT studies often demonstrate the assimilation effects (Lankton & McKnight, 2012; Montero & Fernández-Avilés, 2010). There are fewer citations of asymmetry effects (Lankton & McKnight, 2012). Several researchers identified nonlinearity of relationships (Lin et al., 2017; Madzik, 2019). These are situations when a change in the quantum of an independent variable will not uniformly affect the dependent variable, as in Lin et al. (2017) for the Kano classification, which fitted a non-linear relationship between attribute-level performance and customer satisfaction.

The EDT has been widely used as a model for customer satisfaction by researchers and practitioners. Still, the challenges of understanding and predicting consumer behavior and customer satisfaction in consumer and business markets of varying sizes and stages of development, diversity, and complexity with changes accelerated by technology will test to limit EDT's versatility. An area of specific interest for me in this study was the applicability of EDT and, however adapted, to HEIs.

DPS link model of EDT

Churchill and Surprenant (1982) found that in the DPS link model of EDT, expectations did combine with performance to affect disconfirmation. However, the magnitude of the disconfirmation experience was statistically insignificant, did not

translate into an impact on satisfaction, and that the DPS link accounted for most (88%) of the variation in satisfaction. The authors recommended that researchers and managers should direct more attention to the impact of performance levels and that satisfaction with high involvement, high-value, and infrequently purchased services like higher education could be increased only by increasing performance and not by minimizing negative disconfirmation, e.g., the use of product information, advertising, and promotions.

In the different contexts of durable and nondurable goods, Churchill and Surprenant (1982) argued that the DPS link model is more predictive of customer satisfaction with purchase and use of durable goods, which are typically high-involvement or high value and infrequent purchased goods. The high involvement nature of the purchase justified using a DPS link model of EDT for examining satisfaction among students of HEIs.

Rafik and Priyono (2018) provided a bridge from service quality to consumer satisfaction in an HEI setting by arguing that perceived quality as a measure of performance is conceptually a general attitude. In contrast satisfaction combines service quality and perceived value. The authors demonstrated the DPS link model of EDT in modeling alumni satisfaction for HEIs. The time lag in evaluating the real benefit of the higher education service and the absence of expectation before product purchase makes customer satisfaction at the alumni stage of EEd particularly attractive.

Definition And Evolution Of The DPS Link Model Of EDT. For certain categories of products and services, performance differences (if present) are the primary determinant of satisfaction conversely, the disconfirmation of initial expectation has little

effect on satisfaction (Churchill & Surprenant, 1982). This DPS route to customer satisfaction, bypassing the disconfirmation of expectations, is more typically associated with innovative, technologically complex, durable products which are invariably less frequently purchased and relatively expensive.

In previous studies by researchers in which both expectation and disconfirmation were significantly related to performance, there were no manipulations, and product performance was constant; the studies in which performance was manipulated involved the use of small nondurable products (Churchill & Surprenant, 1982). The authors noted that although both the disconfirmation and performance approaches became the most dominant models in predicting customer satisfaction, the use of the performance instead of the disconfirmation approach in the context of HEI is more common. Churchill and Surprenant argued that the disconfirmation approach might not be appropriate because of the specific characteristics of HEI's customers, especially alumni. The DPS approach to customer satisfaction was adopted by researchers on account of the high-involvement nature of the HEI offering and the time lag in evaluating the real benefits of the service until students graduate and experience them from the job market.

How Theory Is Applied In HEI Setting. As the market for higher education gets increasingly competitive at national and international levels across the public and private sectors, the product-oriented focus of HEIs on service quality is giving way to a market-led emphasis on customer satisfaction and students and alumni are being recognized as customers. Parasuraman et al. (1985) rationalized service quality dimensions from 10 to 5 (*Tangibles, Reliability, Responsiveness, Assurance, and Empathy*) and developed an

instrument for measuring service quality, named ServQual. The 5-dimension service quality model and ServQual, and as modified, has become the standard for measuring service quality in HEIs (Datta & Vardhan, 2017; Hoh et al., 2018; Teeroovengadum et al., 2019). The more specific measurement instruments developed for service quality in HEIs are the Higher Education Service Quality (HESQUAL), reported in Teeroovengadum et al. (2019), Mauritius (2019); and the Higher Education Performance (HedPERF) measurement reported in Abdullah (2006), Banahene et al. (2018) and Danjuma (2018).

Rafik and Priyono (2018) identified the peculiarities of HEI customers, students, and alumni, as the ultimate beneficiaries of the main service HEIs offered. After conceding to the range and diversity of stakeholders – parents, government, society, academic community, and employees – whose interests HEIs must contend with, Rafik and Priyono asserted that global competition requires that HEIs prioritize the student as their primary customer. The authors argued that there is a time lag in evaluating the real benefits of the service in the case of alumni until they experience the benefits in the job market. The authors asserted that alumni capacity to concurrently identify and compare their expectations with their perception for past received service is debatable. In contrast, satisfaction links to specific transactions; the perceived quality as performance measurement is conceptually a general attitude. The authors concluded that although the disconfirmation and performance approaches have become the dominant models for predicting customer satisfaction, the use of performance instead of the disconfirmation

approach will be more appropriate for HEIs because of the specific characteristics of HEIs customers.

Alternative Customer Satisfaction Theories

The customer satisfaction theories are broadly categorized by researchers into (a) consistency theories, (b) equity theory, (c) dissonance theory, (d) hypothesis testing theory, (e) utilitarian theory, (f) adaptation-level theory, and (g) the stimulus-organism-response theory. The more widely used and cited customer satisfaction theories are the consistency theories comprising of (a) assimilation theory, (b) contrast theory, (c) assimilation-contrast theory, (d) EDT, (e) cognitive dissonance theory, (f) adaptation-level theory, and (g) the opponent-process theory.

Anderson (1973) introduced the post-usage evaluation in the literature. He asserted that consumers will try to minimize the expectation-performance discrepancy, unlike the contrast theory that asserts a surprise effect that, subject to the magnitude of the discrepancy between expected and perceived performance, can lead to exaggerating the discrepancy. Festinger's theory of dissonance (1957) forms the basis for the theory of assimilation, which states that the consumer makes a sort of cognitive comparison between the expectations regarding the product and the product's perceived performance. If there is a discrepancy between expectations and the product's perceived performance, the dissonance will not fail to appear. This point of view on post-usage evaluation was introduced in the literature discussing satisfaction under the form of the theory of assimilation (Anderson, 1973).

The contrast theory, first introduced by Hovland et al. (1957), is an alternative approach to the evaluation post-usage process that was presented in the assimilation theory. Dawes et al. (1972) defined contrast theory as the tendency to magnify the discrepancy between one's attitudes and the attitudes represented by opinion statements. This approach states that whenever the customers experience disconfirmation, they try to maximize the discrepancy between previous expectations and actual product/service performances by shifting their evaluations away from expectations. While the theoreticians of assimilation asserted that the consumers will try to minimize the expectation-performance discrepancy, the contrast theory insists on a surprise effect that can lead to exaggerating the discrepancy (Zhang et al., 2019; Bruyn & Prokopec, 2017; Ferreira et al., 2021). According to contrast theorists, any discrepancy of experience from expectations will be exaggerated in the direction of discrepancy. If the firm raises expectations in its promotional activities, and then a customer's experience is only slightly less than that promised, the product or service will be rejected by the customer as totally unsatisfactory. Conversely, under-promising in marketing communications and over-delivery will cause positive disconfirmation by the customer also to be exaggerated (Vavra, 1997).

Zhang et al. (2019) suggested that the assimilation-contrast theory was another way of explaining the relationship between variables within the disconfirmation model. The assimilation-contrast theory, in recognition that assimilation or contrast can appear in connection with the disparity perceived between expectation and the actual product

performance illustrates that both the assimilation and the contrast paradigms have applicability in the study of consumer satisfaction (Hovland et al., 1957).

The DPS link model of the EDT is more appropriate for predicting customer satisfaction in the HEI setting because of the specific characteristics of HEI students as customers. Churchill and Surprenant (1982) found that, for high involvement, high value, and infrequently purchased goods and services, the magnitude of the disconfirmation experience was statistically insignificant. Rafik and Priyono (2018) further adduced that although the disconfirmation and performance approaches have become the dominant models for predicting customer satisfaction, the use of performance instead of the disconfirmation approach will be more appropriate, particularly for alumni of HEIs. This study is on students of EEd in HEIs and the DPS link model of EDT will be more appropriate for examining satisfaction among students of EEd institutions.

The other theories of customer satisfaction, in particular the assimilation theory, contrast theory and assimilation-contrast theory are based on pre-usage expectations and the consistency or lack thereof generated by post-usage experiences. Students of EEd and HEIs, in general, do not have a significant baseline expectation pre-enrollment and may not be able to confirm or disconfirm their expectation. The other theories of customer satisfaction may therefore not be as suitable as the DPS link model of EDT for assessing the satisfaction of EEd students.

Theoretical Framework: Mentorship Theory

There has been an evolution in the thinking, understanding, and definition of mentorship over the years. The theoretical perspectives of mentoring from business,

psychology, and education literature are the foundation for a theoretical framework specific to mentoring in the HEI setting (Crisp & Cruz, 2009; Norris et al., 2017). The definition of mentorship has implications for research and provides a valuable context for Kram's mentor role theory's concept and operationalization.

Kram's Mentor Role Theory in HEI Setting

The leading mentor role theory was propounded by Kram (1983) in a workplace study of developmental relationships based on the protégé feeling that a mentor has taken a personal interest in their development. From the analysis of career and psychosocial functions provided by the mentor, the author identified themes and categories that enabled a conceptual model of the phases of the mentor relationship. However, much is still not well understood in HEI setting about the roles, risks, and benefits involved in mentoring relationships, even in programs where training is ongoing and established (Colvin & Ashman, 2010).

Kram (1983) identified four predictable, yet not entirely distinct stages: initiation phase when the relationship starts; cultivation phase, when the range of functions provided expanded to a maximum; separation phase when the established nature of the relationship is substantially altered; and a redefinition phase when the relationship evolves a new form or terminates. Kram provided a rich definition of and turning points for each of the stages of the mentor relationship and suggested that under certain conditions, a mentor relationship might become destructive for the protégé or the mentor, especially in situations when the former may feel held back or undermined or the later may feel threatened. The precise meaning and role of mentoring as a developmental

relationship in the workplace need to be clarified to drive research and practice efficacy. There is broad agreement that mentoring is a career-enhancing phenomenon necessary for any aspiring executive (Crisp & Cruz, 2009; Friday et al., 2004; Haggard et al., 2011; Kalbfleisch, 2002; Kram, 1983; Ragins & Kram, 2007).

Ragins and Kram (2007) noted that although the roots might be traced to mythology, mentoring is an authentic relationship that has been an integral part of social life and the world of work for thousands of years. The authors' review of new perspectives recognized that mentoring relationships exist in a continuum of quality that reflects a full range of positive and negative experiences, processes, and outcomes. Ragins and Kram offered a traditional definition of mentoring as a relationship between an older, more experienced mentor and a younger, less experienced protégé to help and develop the protégé career. The teacher/instructor, even in a student-led educational environment, might play the more experienced mentor role while the student is the younger, less experienced protégé.

The mentor may or may not be employed in the same organization as the protégé or be in the protégé's chain of command or profession. Kalbfleisch (2002) built on the mentoring theory by emphasizing the importance of communications in the initiation, maintenance, and repair of mentoring relationships and likened mentoring to friendship, even love relationships with the protégé needing to be more communicative. When viewed from outcomes, Kalbfleisch observed that proteges record more career satisfaction, career commitment, job satisfaction, and greater expectations for advancement than those without mentoring relationships. Ragins and Kram (2007)

asserted that a causal relationship between mentoring and protégé career outcomes is not assumed because most mentoring research was cross-sectional. Friday et al. (2004) offered a universal definition of mentoring as the guidance process between a mentor as a wise and trusted counselor or teacher and a protégé as an apprentice. This definition is without a connotation that a mentor is an organizational success or is older than a protégé. These mentoring thinking and definitions need to be applied to and evaluated in the multi-stakeholder educational context.

Evolution Of The Kram's Mentor Role Theory. Mentoring as a concept may date back to the Stone Age. The word "mentor" stems from Greek mythology. Odysseus entrusted his friend, Mentor, to help him prepare to fight in the Trojan war by serving as 'a wise, responsible, and trusted advisor' who guided Odysseus's development (Crisp & Cruz, 2009). Crisp and Cruz (2009) reported that research articles published in various fields between 1978 and 1999 found that mentoring involves several essential and contingent mentoring attributes. The attributes are an underlying helping, teaching-learning, reflecting, career-development in a formalized and supportive process and relationship, and a role constructed by or for a mentor. Haggard et al. (2011) reported that from a chronological perspective, the significant evolutionary changes beginning in the 1990s were (a) inclusion of more details about mentor behaviors; (b) drawing distinctions between supervisors and mentors and between formal (assigned) and informal relationships; beginning in the 2000s (c) acknowledging that a mentor may be outside one's organization and moving toward incorporating the goals of the mentoring relationships.

Crisp and Cruz (2009) asserted that concerning definitions provided to proteges (and mentors), there were two important and related issues – striking differences not only in the overall level of detail in the descriptions of who a mentor is and what a mentor does, why and how but also four boundary conditions that may provide different research results: (a) mentor place within the organizational hierarchy, (b) supervisory vs. non-supervisory mentoring, (c) inside vs. outside mentor, and (d) level of relationship intimacy. The authors proposed three core attributes– reciprocity, regular/consistent interaction, and developmental benefits – that distinguish mentoring from other kinds of work-related relationships.

Alternative Mentorship Theories

There are several alternative mentorship theories and models. Crisp and Cruz (2009), in a review of the literature on mentoring college students between 1990 and 2007, proposed a theoretical framework with four major or latent variables and validated it by using a community college population and undergraduate students attending a Hispanic Serving Institution. The four latent constructs include: (1) psychological and emotional support, (2) support for setting goals and choosing a career path, (3) academic subject knowledge support aimed at advancing a student's relevant to their chosen field, and (4) specification of a role model. It is noteworthy that the first latent variable, psychological and emotional support, draws on the theoretical perspectives of Kram (1988), among others. A more relevant mentoring model adapted for university graduate students covering socio-emotional, instrumental, and networking items was used by Tenenbaum et al. in 2001.

Developments in EEd in HEI Setting

Student satisfaction is the dependent variable in this quantitative study. Student satisfaction is increasingly a topical issue as EEd institutions face increasing competition and stakeholders demand that EEd produce successful entrepreneurs in large numbers and efficiently (Byun et al., 2018). Reconciling a student-centric approach to EEd that is more fit for purpose with the diverse needs and expectations of stakeholders raises questions about the nature of EEd and the challenges faced by higher education providers. Given the numerous types of educational interventions in youth unemployment and the diversity of stakeholders, some of whose unmet needs and expectations have raised questions as to the fitness of EEd for purpose, discussions on EEd and the institutions that provide these services started with a definition and clarification on the aims, objectives, benefits, and impacts of EEd.

The Numerous Perspectives on EEd

The focus of studies in the narrow view of EEd is to enable the student to set up a venture and become self-employed (Agbonlahor, 2016; Jones et al., 2017; Oluwasanya et al., 2018). The curriculum for narrow-view EEd majors on opportunity identification, business development, self-employment, venture creation, and growth and the desired learning outcome is to become an entrepreneur (Fayolle & Gailly, 2008; Jones et al., 2017). An alternative perspective, the broad definition of EEd, is focused on becoming entrepreneurial and involves critical competencies such as creativity, self-reliance, personal development, initiative-taking, and action orientation, with enormous implications for educational goals and objectives, target market and student selection,

curriculum design and pedagogy and student assessment processes (Mwasalwiba, 2010). Given the severe urgency of youth unemployment and limited resources, stakeholders of EEd in developing countries are inclined to differentiate and focus their effort and resources. While all students and workers may strive to be entrepreneurial or more enterprising, education for entrepreneurship or venture creation should be prioritized in great need and resource-scarce environments.

There is a view of education in entrepreneurship in contrast with education for entrepreneurship. This is partly due to a growing appreciation of EEd as an essential tool for fighting youth unemployment. Many developing countries have made some version of EEd, a compulsory course at the tertiary level (Agbonlahor, 2016; Ezeani, 2018). Such teaching about entrepreneurship means a content-laden theoretical approach aimed at giving a general understanding of the phenomenon (Mwasalwiba, 2010) and views entrepreneurship as a human action method, comprising principles and techniques that anyone can learn through basic education (Sarasvathy & Venkataraman, 2011). But education in entrepreneurship contrasts with education for entrepreneurship because the latter is an occupationally oriented approach to give budding entrepreneurs the requisite knowledge and skills to start a new venture (Mwasalwiba, 2010). A variation of education for entrepreneurship is education through entrepreneurship; teaching “through” involves an experiential approach where students go through an actual entrepreneurial learning process (Isabelle, 2020). The differentiation of education in entrepreneurship from education for entrepreneurship is essential and clarifying to all stakeholders, especially students of EEd. The researchers and practitioners also need to distill and agree

on the nature and essence of EEd to evaluate the fitness for purpose for EEd programs that range from 2-day boot camps to 2-year MBA Entrepreneurship degrees.

There has been an attempt at a unifying definition of EEd. Fayolle and Gailly (2008) contend that varied definitions of entrepreneurship and corollary variations in pedagogical perspectives have made it arduous to give instructors solid advice on approaching EEd. Ratten (2020) argued that entrepreneurship is about change and learning that the individual entrepreneur experiences by interacting with the environment on the one hand and as the change and value creation the entrepreneur causes through their actions on the other hand. The unifying theme for the definitions of entrepreneur and EEd is learning and value creation for the entrepreneur and value creation as the main goal for students in EEd. As propounded by the education philosopher John Dewey, the learning-by-doing may then be re-labeled as the learning-by-creating-value approach in entrepreneurship (Azizi & Mahmoudi, 2019; Fox et al., 2018). According to this definition of EEd, if a pedagogical approach lets students learn to create value for other people, it is EEd.

The main goal of providers of EEd is to develop some level of entrepreneurial competencies defined as knowledge, skills, and attitudes that affect the willingness and ability to perform the entrepreneurial job of new value creation. Entrepreneurial competencies include noncognitive factors such as perseverance, self-efficacy, and learning skills (Conner & Erickson, 2017) and social skills and cognitive competencies, primarily intellectual capacity-based competencies, such as opportunity analyses, risk-taking, goal setting, planning, and information seeking (Botha et al., 2019; Isabelle, 2020;

Penaluna & Penaluna, 2020; Solesvik, 2019). Gedeon (2017) summed it up by asserting that the most desirable goal of EEd is the transformation of the student with transformation defined as changes in knowledge ('Head'), skills ('Hand'), and attitudinal ('Heart') learning outcomes. EEd is a broad subject that may be applied to single classes, workshops, modules, courses, curricular, and degree programs. EEd can be delivered by education providers to children, youth, undergraduates, graduates, executives, professors, corporations, immigrants, refugees, and those in need. In the context of this study, I will focus primarily on entrepreneurship programs at the tertiary education level.

The Relevance and Value of EEd

There has been an exponential growth in the number of HEIs offering entrepreneurship studies and programs to drive self-employment and enhance employability (Nwosu & Chukwudi, 2018). EEd has become an essential part of both industrial and educational policies in many countries (Agbonlahor, 2016; Ezeani, 2018), further underlying the relevance and value of EEd.

Researchers, educators, enterprise support groups and sponsors, and policymakers often promote EEd as a significant engine for economic growth and job creation (Agbonlahor, 2016; Oluwasanya et al., 2018). Entrepreneurship's role in taking on important societal challenges has positioned EEd to empower people and organizations to create social value for the public good (Kickul et al., 2018). An unusual but promising starting point for EEd is the booming interest among young people to solve societal problems and become social entrepreneurs and agents of social change (Kickul et al., 2018).

Research on the effects of EEd was primarily focused on a narrow definition of entrepreneurship as an educational intervention that enables students to set up new companies that are growing and creating jobs sooner or later. Most studies on the effects of EEd lean on if becoming an entrepreneur is conscious, planned behavior. Researchers draw a link between attitudes, intentions, and behavior based on the Theory of Planned Behavior (TPB) taken from the domain of psychology (Alam et al., 2019; Gorgievski et al., 2017). If EEd positively influences the attitude of people towards entrepreneurship, their entrepreneurial intentions will also change, and it will subsequently lead to the so desired entrepreneurial behavior. Using this assumed linkage, researchers of the effectiveness of EEd institutions have administered surveys that try to capture students perceived entrepreneurial attitudes and intentions before and after an educational intervention (Georgescu & Herman, 2020; Mahendra et al., 2017; Raza et al., 2021). If attitudes and or intentions have changed positively afterward, it may be successful entrepreneurial education. There are, however, numerous problems with this approach. It leans on a research method taken from natural sciences where effects in a treatment group are compared to the results in a control group not getting treatment. However, the strict circumstances that need to be fulfilled for this method to work are seldom met in entrepreneurial education due to practical challenges, so the results need to be interpreted by the researcher with significant precaution (Martin et al., 2013). Entrepreneurial processes are seldom linear (Sarasvathy & Dew, 2005); they are rather iterative, meaning that attitudes, intentions, and behavior are dynamically interrelated.

Another common strategy for assessing entrepreneurial education effects is to capture actual entrepreneurial behavior as it occurs years after the educational intervention (Rafik & Priyono, 2018). The difficulty here is in proving that it was entrepreneurial education that caused the successful entrepreneurial behavior. Venture creation takes many years to reach success, making it difficult to isolate the role of entrepreneurial education (Fayolle & Gailly, 2008). However, what is clear from behavioral research on assessment is that EEd graduates have a higher frequency of acting entrepreneurially (Carolis & Litzky, 2019; Fiore et al., 2019; Menzies & Paradi, 2002; Nabia et al., 2021). People with entrepreneurial orientation and interest might be attracted to EEd, making self-selection bias a problem. Regardless if these students acted entrepreneurially or not without educational treatment, it is difficult to deny the benefit practicing entrepreneurial individuals have received some degree of preparedness through entrepreneurial education.

Neither of the two main assessment strategies described above contributes more than marginally to illuminating the question of how, when, and why students develop entrepreneurial competencies. However, there is increasing qualitative evidence of effective practices (Neck & Greene, 2011). Perhaps we need to accept that the currently used methods for assessing the impact of entrepreneurial education need to be developed by researchers and refined further to deliver robust teacher recommendations and effectiveness evidence in line with widespread beliefs and convictions. One possible avenue is to use mixed methods, i.e., a mix of quantitative and qualitative methods.

Novel Approaches to EEd

Many scholars stated that there is only one way to learn to become entrepreneurial, and that is by learning through their own experience. Nabia et al. (2018) showed that learning and inspiration may develop a student's entrepreneurial intention as early as in the first year in higher education but that EEd, in some cases, may decrease entrepreneurial intention. Wenninger (2019) suggested using assessment as a tool to motivate and encourage students to experiment with venture creation activities even when they have no initial intrinsic motivation in entrepreneurial practice. The author argued that results indicate that more innovative assessment formats are needed because they are best suited for action-based experiential learning and venture creation courses. This finding should be of particular interest to researchers and teachers of EEd in developing countries where the mode of learning is short on problem-solving and predominantly by rote. However, researchers' work on how real-life entrepreneurs learn is largely disconnected from the educational domain and offers little advice to teachers. Knowing how real-life entrepreneurs learn leaves teachers with an unanswered question of what to do to learn. There is a need for robust advice on what to let students do to develop their entrepreneurial competencies.

There have been novel approaches to stimulating entrepreneurial competencies. Lackeus (2014) gives some initial advice on learning-by-doing activities that can trigger entrepreneurial competencies development. Teachers should provide their students' assignments to create value, preferably innovative, to external stakeholders based on problems and opportunities the students identified through an iterative process they own

themselves and take responsibility for. Some of the tools that can support the value creation process are effectuation (see for example, Sarasvathy & Dew, 2005; Sarasvathy & Venkataraman, 2011), business model canvas (Joyce & Paquin, 2016) and lean startup (Bockena & Snihur, 2020), a concept from Silicon Valley in the USA that has reached worldwide adoption among entrepreneurs.

Educational reforms often aim to achieve a large-scale spread of good educational practices to classrooms. The main catalyst for change was negative school evaluations urging school interventions and teachers' proactive engagements within their classrooms (Tondeur et al., 2017). If entrepreneurial education scaled to something more than pockets of excellence in isolated classrooms and schools, several key success factors of educational reforms need to be considered by educationists. Fejes et al. (2019) and Mandrop and Kensen (2017) suggest education reforms that can be applied to entrepreneurial education. Strong normative structures in entrepreneurial education for good teaching, evaluation, monitoring, inspection, and feedback to teachers need to be established by multiple levels of authority external to schools and universities. Mentoring, advice from colleagues, supporting office, and professional organizations/ conferences were the most critical support factors for practicing teachers.

Consumer Orientation at HEIs with Focus on Student Satisfaction

In contrast with an ivory tower stance, Senior et al. (2017) ushered in a new consumerist higher education age. Consistent with a new consumer orientation in higher education, Huang et al. (2020) presented teacher and student satisfaction with contemporary practice on a sustainable development model of EEd in China. The

mainstream institutions are experimenting with student-centered pedagogical approaches, as suggested by Fiore et al. (2019), in fostering an entrepreneurial mindset using a multidisciplinary, design thinking approach to EEd. HEIs in developing countries are also making strides in student perception towards EEd (Mwiya et al., 2017). This student satisfaction focus is evident in transnational education and international branch campuses (Datta & Vardhan, 2017).

In line with the wide and narrow view of EEd, HEIs are rethinking their offerings. Jones and Penaluna (2013) and Neck and Greene (2011) agreed that the ideal outcome for EEd is new venture creation. Some HEIs are willing to expand and work the EEd ecosystem – university-industry-government collaboration in pursuit of broader student needs and expectations (Fischer et al., 2018). There is a growing debate among education researchers on how to adapt the general core principles of EEd, many of which are closely linked to business education, to other academic areas that currently lack this type of education (Damasio & Bicacro, 2017). The authors discussed the challenges of developing a model of EEd for the creative industries sector.

Opportunities and Challenges Of EEd in Developing Countries

Governments worldwide have shown a growing interest in interventions that promote entrepreneurial success, making significant investments in EEd. Stakeholders are using EEd to drive innovation, entrepreneurial activities, and job creation despite severe peculiar barriers in developing countries – from unfriendly regulatory burdens and shortage of entrepreneurial finance to corruption and limited infrastructure. Other

researchers attributed the stunted growth of EEd in developing countries to structural, cultural, and pedagogical problems (Agbonlahor, 2016; Oluwasanya et al., 2018).

Policymakers and educationists in developing countries believe that the promise of EEd is tied to its efficacy in solving the serious problem of unemployment among the burgeoning youth population. Wilson (2009) suggested that the earlier and more widespread the exposure to entrepreneurship, the more likely students will become entrepreneurial, in one form or another, at some stage in their lives. The author then asserted that young people have a right to EEd to understand and explore the world around them and to unleash their economic potential and democratize wealth. The advances in the availability of ICT in developing countries present a unique opportunity to leverage technology (Gangi, 2017) and multimedia for sustainability, scale, and social inclusion of young people at the bottom of the education and economic pyramid.

The challenge of knowing what is working, why, how, and when in the EEd space is compounded by developing country barriers (Agbonlahor, 2016; Oluwasanya et al., 2018; Oluwatayo, & Ojo, 2018). The government has mandated all tertiary institutions in Nigeria to run an EEd program. However, there is no clarity on target learning outcomes, and the HEIs lack the capacity to deliver the somewhat limited curriculum (Agbonlahor, 2016) scoped to only six credit units. The public and private sector educational institutions running complete academic programs in entrepreneurship strive for one or more of three potential learning outcomes for EEd – entrepreneurial mindset, entrepreneurial capabilities, and entrepreneurial activities such as starting a new venture (Isabelle, 2020). Robb et al. (2014) report that universities in Kenya, Ghana, and

Mozambique are progressively involved in EEd. Faculty in Kenyan universities are increasingly linked to entrepreneurship incubator programs that offer a range of wrap-around services from networking and mentorship connections to access to potential funding sources. Beyond problems with the quality of learning experience, students of EEd programs in developing countries also suffer from inadequate mentoring and funding support.

The role and value of the experiential approach to EEd is well established in academic literature. The experiential approach to EEd at the Kwame Nkrumah University of Science and Technology (KNUST), Ghana, is packaged as a 5-part clinic with the last two, coaching and monitoring and evaluation geared towards action, support, feedback, and debrief (Nyadu-Addo & Mensah, 2017). This incubation availability at KNUST contrasts with Kolade's (2017) report of limited facilities for incubation in Nigeria.

Constructs of Satisfaction in Higher Education

The study examined the relationship between the perceived quality of student learning experience, the perceived quality of mentoring, and student satisfaction. The learning experience and mentoring are antecedents of satisfaction in a higher education setting. The constructs of satisfaction in higher education are well established in academic literature as they impact competitive advantage.

The Antecedents of Student Satisfaction as Foundation for Competitive Advantage

Student satisfaction is central to the survival and growth of an EEd institution in an increasingly global and competitive market. Researchers have conducted many studies into the antecedents and drivers of satisfaction, the relationship between satisfaction and

loyalty, the degrees of satisfaction with various aspects of HEI service, and the ultimate impact of satisfaction on the financial sustainability of HEIs. An understanding of the antecedents of student satisfaction may be helpful in directing faculty and admin actions in HEIs.

The extent to which students are satisfied with HEI services has an impact on the sustainability of the institution (Dlouha et al., 2017; Duzˇevic et al., 2018; Hoh et al., 2018; Luna-Krauletz et al., 2021; Paul & Pradhan, 2019; Santini et al., 2017). Santini et al. (2017) conducted a review of studies published from 1986 to 2016 and identified six antecedent dimensions: (a) perceived value of educational services, (b) resources provided to the student, (c) service quality perception, (d) marketing orientation, (e) identity of the HEI, and (f) university environment. Duzˇevic et al. (2018) and Paul and Pradhan (2019) focused on the relationship between student satisfaction and loyalty. Paul and Pradhan (2019) further established the dimensions of service value as functional value, customer intimacy, service quality, appurtenant value, image, and social value, arguing that service value can achieve competitive advantage. The level of learning satisfaction was not uniform as it varied in the sequence (highest to lowest) from peer relationship, library resources, university policies, course curriculum, accommodation, administration services, lecturer teaching to lecturer guidance (Hoh et al., 2018).

The extent of student satisfaction with higher education in general and EEd, in particular, is widely variable. Huang et al. (2020) found that students were most satisfied with entrepreneurship policy and least confident with entrepreneurship learning, especially that entrepreneurship theory learning and practice learning are closely

combined with student majors. Weerasinghe and Fernando (2017) found the significant predictors of student satisfaction to be the quality of university facilities, the quality of the average program, and the university image, the image being the strongest predictor. Hsu et al. (2016) focused on alumni satisfaction and built several strategic management maps to help the department of an HEI identify areas for continuous improvement. The authors found that course design needed the most attention and received the greatest improvement after departmental intervention.

The use of more specific measurements for student satisfaction in the HEI setting has served to illuminate the issues. Mwiya et al. (2017) found that service quality performance dimensions (tangibility, reliability, responsiveness, empathy, and assurance) are each significantly positively related to overall customer satisfaction, which affects behavioral intentions. When adapted to the higher education environment, the measurement instrument (HEdPERF) has positive and statistically significant relationships with students' satisfaction, attitude towards learning, and academic performance (Banahene et al., 2018). However, Osman and Saputra (2018) revealed that image occupied a full mediation role between service quality and student satisfaction and disclosed that the direct part of service quality and student satisfaction was not significant.

Learning Experience for Students in HEIs

The learning experience in the higher education setting occurs when students participate in cognitively demanding tasks, get meaningful feedback, and have the opportunity for real-world application (Holland, 2018). Holland revealed that the ability

of students to engage in cognitively demanding tasks and gain practical lessons is compounded by a wide range of environmental issues. A key issue is a growing concern about the lack of focus and limited impact of EEd and the learning experience that students gain (Ukoha, 2017; Gedeon, 2018; Galvão et al., 2017).

There Are Numerous Learning Approaches With Varying Efficacy In EEd. Ukoha (2017) asserted that teachers routinely use ineffective traditional teaching and assessment methods in EEd instruction and argued for pedagogies that maximize entrepreneurial learning outcomes for achieving the self-employment objective of EEd. Gedeon developed an institutional impact model in which student transformation was presented as the primary goal of EEd and that all other program goals and aspects of quality desired by stakeholders are either inputs factors (instructors, courses, facilities, support, etc.) or output performance metrics (number of startups, average starting salary, % employment, etc.). Gedeon's framework allows competing quality expectations to be incorporated into a continuous process improvement (CPI) model when establishing program goals and to measure these goals when implementing TQM methods.

Galvão et al. (2017) took a more macro view of the impact of EEd and student learning experience. The authors found that both training and EEd can be a strong strategic tool for regional development. It is important for academic, government, and business entities to cooperate towards the same goal to strengthen the entrepreneurial intention of society. Since the debut of EEd in higher education with one course at Harvard University in 1947, Liguori et al. (2018) revealed that EEd is now taught at more than 3,000 institutions across the globe, but the definition and purpose of EEd remain

controversial. The debate on the desirable focus of EEd, whether on an entrepreneurial mindset or through to venture creation, continues to exercise scholars and practitioners alike. These heighten questions around desirable competencies and instructional modalities required for a quality student learning experience.

Researchers have established the need for a practical, enacted approach to instructions for quality student educational experience. Boldureanu et al. (2020) provided evidence that EEd based on successful entrepreneurial models may positively influence the entrepreneurial attitudes and intentions of students and could lead to a higher orientation of student perception towards social benefits of entrepreneurship (new jobs) compared to financial ones (high income). The authors also found that if educators want to improve the efficiency of education focused on developing entrepreneurial skills, graduate programs should be designed differently for business and non-business students since studying successful entrepreneurial stories impact these two groups differently. Still, on the drive for competency for a great student learning experience, Dzisi and Odoom (2017) suggested constant innovation as the basis for promoting a strong educational system in teaching and learning entrepreneurship. One of the more innovative approaches to instructions in EEd is the embrace of design thinking as evidenced by the increasing number of curricular incorporating processes that have roots in design even though there is limited understanding of the conceptual underpinnings and the implementation of such practices (Linton & Klinton, 2019; Sarooghi et al., 2019).

In striving for a great student learning experience in Ghana, the KNUST clinic is designed to deliver five main activities: preparation, orientation, selection, matching,

coaching, and monitoring and evaluation. The last two activities – coaching and monitoring and evaluation – are geared towards support, feedback, and debrief (Nyadu-Addo & Mensah, 2017). The authors confirm that thousands of tertiary students have been trained in entrepreneurship and new venture creation; some selected participants have been coached while others have had the opportunity to qualify for business incubation. Allied to the question of novel approaches to instructions on EEd for great student learning is the longstanding concerns about resource limitations.

There are numerous innovations in infrastructure and resources available to EEd to enliven student learning experience, including the role and use of enterprise development centers (Ndou et al., 2018; Tolstykh et al., 2020) and the use of experiential approaches covering 3D, virtual reality, and computer simulations (Bedawy, 2017; Fox et al., 2018; Grivokostopoulou et al., 2019; James et al., 2020). The pivotal role of enterprise development centers (EDCs) in the development of EEd is receiving more attention as the "black box" for cultivating entrepreneurial mindset and competencies (Ndou et al., 2018). The use of 3D virtual worlds may greatly enrich student learning experience as 3D virtual reality technologies were utilized to provide immersive learning activities (Grivokostopoulou et al., 2019). The authors surmised that game-based learning activities could help students gain necessary skills, helping them to tackle everyday obstacles on their entrepreneurial pathways. The authors' evaluation study revealed that the framework for gamified learning activities increases students' motivation and assists in formulating entrepreneurship mentality, skills, and competencies. Fox et al. (2018)

revealed that serious games, specifically computer simulations, might be modeled on entrepreneurship to stimulate entrepreneurial learning.

Researchers suggest that the impact of the numerous innovations in infrastructure and teaching of EEd on student learning experience is blunted by inadequate resources, especially in a developing country like Nigeria. Adebayo (2018) alluded to a shortage of instructional resources for the acquisition of entrepreneurial skills among business education students in the Ekiti State of Nigeria. The author found out that the inadequate instructional resources related to the teaching of available trades in the two universities, which is consistent with a similar lack of resources for teaching and learning in most universities in Nigeria. Allied to the shortage in quantity is the problem of quality of faculty staff. Kolade (2017) addressed more directly the lack of resources and facilities for the incubation of new business ideas.

Those Who Teach Entrepreneurship Need Entrepreneurial Insights. Otache (2019) raised the salient question: who should teach entrepreneurship? The author wondered whether EEd lecturers who are not entrepreneurially inclined or lack entrepreneurial insights could teach students to become entrepreneurs. Hagg and Kurczewska (2020) argued that although entrepreneurship is currently positioned as an experiential subject in academia, the theoretical and philosophical roots of experience in learning have not been fully addressed, leading to a deficit in the understanding of how knowledge is derived from experience, and how the experience may differ depending on its philosophical underpinnings. Olokundun et al. (2018) were more particular in answering the questions posed by Otache in asserting that the knowledge and skill of an

entrepreneurship educator impact entrepreneurship students' commitment to learning in writing feasible and viable business plans as a critical output for EEd geared to a business startup.

Having An Entrepreneurial Mindset Is A Requirement For The Student Learning Experience To Be Impactful. Within the context of EEd and student learning experience is the debate on what competencies are critical to entrepreneurial outcomes and whether students' mindset to be successful entrepreneurs can be taught. The consensus appears to be that entrepreneurial competencies can be taught (Barnard et al., 2018; Kolade, 2017; Olokundun et al., 2018; Radianto & Santoso, 2018; Yatu et al., 2018). Yatu et al. (2018) found that related concepts like skills, intention, drive, and attitude have been used in expounding discussions on the outcome of EEd, and Ustav and Venesaar (2018) were able to show a strong relationship between student meta-competencies and changes in attitude, emotions, intentions, and interest towards entrepreneurship. However, Ustav and Venesaar argued that little is understood about mindset, which other studies have suggested is a crucial point in the journey of an entrepreneur. Mukhtar et al. (2021) and Radianto and Santoso (2018) identified the challenges in the EEd journey and student learning experience to be primarily the difficulty in changing mindset, the distinctiveness of each students' business plan, the resources required by the facilitators, and facilitation and time management skills. Olokundun et al. (2018) noted that the majority of the students in selected universities were able to develop critical thinking abilities and business idea generation competencies. They had the most difficulty in developing the confidence, commitment, and drive for the

achievement of entrepreneurial goals and aspiration at graduation. The authors attributed this failure to start a business postgraduation to a lack of entrepreneurial mindset in the first place.

The Use Of ICT Is A Necessity For Scaling Student Learning Experience. A discussion of student learning experience in higher education and entrepreneurship studies will not be complete without reviewing recent development in the application of ICT for instruction and assessment and EEd specialization by vocational interest. The growing number of students enrolled in entrepreneurship programs creates unprecedented challenges. In Nigeria, EEd was made a compulsory program at the tertiary level, and classes of up to 900 students in lecture theatre settings are not uncommon. Researchers advise that nowadays, information and communication technology (ICT) is used to cope with and enhance the effectiveness of traditional teaching methods and competency training (Orser et al., 2019; Wu & Leung, 2017). The authors also found that animated presentations and videos help entrepreneurial teams better deliver their business ideas to investors in a well-thought-out way. The specialization of EEd into the ICT field is now well established, and its practitioners are known as technopreneurs.

The efforts to extend EEd into other fields have met with mixed results. Thom (2017) confirmed the assumed poor state of arts EEd at HEIs by showing evidence that an EEd of fine art students is not implemented at HEIs, neither in the UK nor Germany. The integration of EEd into the academic discipline of higher education students is particularly relevant in developing countries if job seekers are to become job creators.

Mentoring for Students of HEIs

Mentoring in education involves pairing students (mentees) with an older peer or volunteer (mentor), who is a positive role model. Apart from an understanding of mentor relationships which are often constructive but can be destructive, and the necessity of mentoring in EEd, much of the literature on mentoring is devoted to the nature of mentoring relationships and the application of technology to mentoring or e-mentoring. The quality of mentoring is the second independent variable in this study.

The Definition And Nature Of Mentoring Is Established. Kram (1983) and Ragins and Kram (2007) defined and elaborated on the nature of mentoring relationships. Kram (1983) demonstrated that the mentor relationship has four developmental phases, each with a turning point, namely: initiation, cultivation, separation, and redefinition. Ragins and Kram (2007) established that while the roots of mentoring can be traced to mythology, mentoring is no myth; it is a genuine relationship that has been an integral part of social life and the world of work for thousands of years. The academic world has benefited from mentoring relationships too. Kubberød et al. (2018) noted that peer mentors contributed to the mentee students' learning through various support forms categorized into mentor roles, mentor functions, and intervention styles. Still, on the nature of mentor relationships, the authors found that peer mentors fulfill three co-existing roles: learning facilitator, supportive coach, and familiar role model. These roles constitute a typology of entrepreneurial peer mentoring. On the essential nature of mentorship, Coller-Peter and Cronje (2020) made a distinction arguing that coaching and

mentoring should be defined separately within the context of small business academy's development programs and similar entrepreneurial programs.

Much of the literature on mentoring in higher education is related to its impact, in the case of EEd, the implications for entrepreneurial interest and commitment (Baluku et al., 2018; Chi et al., 2019; Kubberød et al., 2018; Nabi et al., 2019; Saino, 2019). Nabi et al. (2019) propounded a framework addressing the mentoring functions' multifaceted nature, which contributed to understanding mentoring functions and their effect on entrepreneurial development. There is more direct evidence of the significant positive impact of entrepreneurial mentoring on entrepreneurial interest in a studentpreneur program (Saino, 2019).

The impact of mentoring relationships varies by country. Baluku et al. (2018) findings indicate that mentoring and autonomy are positively correlated with entrepreneurial interest. Country-level analysis showed the effects were highest in Germany and lowest in Uganda. Chi et al. (2019) proposed a framework for evaluating mentorship programs in resource-strapped Low- and Medium-Income Countries (LMIC) settings. The authors identified six domains and described specific metrics and how they may be considered part of the evaluation.

Concerning the impact of mentoring in the early years of university education, Nabia et al. (2018) and Dam et al. (2018) found support for the applicability of their framework in addressing the multifaceted nature of the mentoring functions, which include a range of knowledge development and socio-emotional functions. Harker et al. (2019) assessment results reveal that the mentoring program is meeting its goals of

contributing to the professional development of proteges, improving mentor competencies, increasing participants' confidence, and expanding participation in the program. Lyons et al. (2019) tested the influence of mentee-reported relationship quality and mentor-reported use of goal-setting and feedback-oriented activities on academic, behavioral, and socio-emotional outcomes. The author concluded that there appears to be a sweet spot wherein youth outcomes are maximized since goal-setting and feedback-oriented activities were associated with moderate to significant effects on outcomes. Hagler and Rhodes (2018) also found that natural mentoring relationships can exert a lasting influence on young people's developmental trajectories.

There Is Rapid Growth In The Use Of Technology In Mentoring In HEIs. The growth in the application of technology in mentoring in higher education is to the benefit of EEd. E-mentoring is a means of providing guided mentoring relationships by a mentor using online facilities to a mentee who is anonymous (Singh & Kumar, 2019). The authors found that although e-mentoring may be extensively used to support not only skills development in specific areas of business or individual needs, student participants in the study did not strongly believe that e-mentoring helps in gaining business aptitude but on the other side they reveal readiness and interest to accept e-platforms for mentoring. A literature review by Tinoco-Giraldo et al. (2020) showed consistent interest in e-mentoring within educational research. Neely et al. (2017) took a more comprehensive look at technology applications in mentoring relationships. They concluded that a simultaneous embrace of technology and training and development might confer a significant competitive advantage for organizations.

Variables and Measurements

Quality of Student Learning Experience

The quality of the learning experience refers to the degree of excellence in the interaction, course, program, or other learning experiences. Teachers and support staff may undertake the learning in traditional academic settings (schools, classrooms) or nontraditional settings (outside-of-school locations, outdoor environments), involve traditional educational interactions (student learning from teachers and professors) or nontraditional interactions (student learning from other students, through games and interactive software applications). Student active learning is the active construction of a sense of reality

Definition. The learning experience is defined as perceived quality of student learning experience. In the HEI setting, service quality is a major factor affecting student satisfaction (Hsu et al., 2016; Mwiya et al., 2017; Rafik & Priyono, 2018; Vijaya, 2015). Rafik and Priyono presented service quality as the totality of features and characteristics of a product or service deliberately offered to meet customers' implied and stated needs. Hsu et al. (2016) paid attention to service quality directly related to the process of knowledge transfer, not to the quality of administrative services. They proposed three essential dimensions of service quality in HEI, which are course design, teaching staff, and campus environment. Hsu et al. (2016) summarized that service quality was influenced by many factors and affirmed that groupings of course design, teaching staff, and campus environment include whole aspects of the student learning experience. The

perceived quality of the student learning experience in this study is synonymous with perceived service quality.

Measurement. The perceived quality of student learning experience has been construed to be synonymous with perceived service quality in higher education (Hsu et al., 2016). The instrument to measure the perceived quality of student learning experience is the alumni satisfaction model (Hsu et al., 2016). The alumni satisfaction model (ASM) is a multidimensional model that established a causal relationship between perceived quality (14 items) and perceived value (15) on the one hand and student satisfaction (2) and student loyalty (2) on the other hand. The perceived value was not a construct in this study, so only the 14 questions for perceived quality were collectively used to measure the independent variable, perceived quality of student learning experience. The independent variable in this study, the perceived quality of student learning experience, was synonymous with perceived quality in the ASM, and the latter comprised three constructs – course design (3 items), teaching staff (4), and campus environment (7). Hsu et al. (2016) assessed item reliability for all three constructs in perceived quality by examining the loadings. All the loadings and internal consistency reliability measures for the 14 items across three dimensions of perceived service quality exceeded the recommended threshold of 0.7. After examining the results, Hsu et al. (2016) found that all three constructs for perceived service quality have adequate discriminant validity.

Quality of Mentoring

QAA (2012) asserted that one-to-one support such as coaching or mentoring could be effective in providing support and responding to the emerging needs of students

of EEd. Lutz et al. (2014) identified and described six mentoring practices (coaching, pushing for an explanation, protection, rapport, acceptance/confirmation, and role-modeling) and explored how students value and respond to those practices. Baluku et al. (2018) found that mentoring was positively correlated with entrepreneurial intention (EI) in a large multi-country, empirical study of final-year university students.

There is evidence that peer mentoring, a widely used mode of mentoring in other contexts, can be effective in EEd too. Kubberød et al. (2018) found that peer mentors contributed to mentee students' learning through various forms of support, categorized into mentor roles, mentor functions, and intervention styles. The analysis found that peer mentors fulfill three coexisting roles: learning facilitator, supportive coach, and familiar role model, all of which constitute the pillars of a typology of entrepreneurial peer mentoring.

Mentoring is well established as a workplace practice and attracts considerable interest among researchers and practitioners in higher educational institutions. With the growth of technology and greater use of virtual teams, organizations have increasingly begun to use e-mentoring to socialize, train and develop individual employees via technology (Neely et al., 2017). The authors noted that despite the growing importance of e-mentoring, relatively little research has examined its processes or effectiveness. Of the 33 articles on e-mentoring at HEIs reviewed by Tinoco-Giraldo et al. (2020), only Singh and Kumar (2019) were focused on virtual mentoring for entrepreneurial development.

Definition. Mentoring in education involves pairing young people with an older peer or volunteer, a positive role model. In general, mentoring aims to build confidence,

develop resilience and character, or raise aspirations rather than develop specific academic skills or knowledge (Lutz et al., 2014). Mentoring may also be viewed as part of a support system that encourages people to manage their own learning to maximize their potential, develop their skills, improve their performance and become the person they want to be (Hernandez et al., 2017).

Measurement. Tenenbaum et al. (2001) examined the relationship of graduate students with their advisers, satisfaction, and academic success. The instrument chosen for measuring the quality of mentoring in this study is the Tenenbaum et al. (2001) survey which is adapted from Dreher and Ash (1990). The instrument comprises a total of 19 items for the three constructs – psychosocial (10 items), instrumental (6), and networking (3). The psychosocial help items are related to social-emotional support that mentors provided to their mentees. In contrast, instrumental items were focused on how often mentors provided academic or job-related support to their mentees. Networking items were concerning how often mentors helped students make concessions within the field.

Each of the three factors was found to have an α of 0.8 or more (Tenenbaum et al., 2001). After a five-level hierarchical multiple regression analysis, Tenenbaum et al. (2001) determined that instrumental, networking, and psychosocial help added to the model improved prediction of students' satisfaction with their graduate school experience and psychosocial help had a significant positive relation to students' satisfaction with their graduate school experience.

Student Satisfaction

Student satisfaction is the dependent variable in this study. Within the context of the theory framework – the DPS link model of the EDT – the student is the customer. This acknowledged a growing perception of the student-customer as the primary stakeholder in the HEI setting (Rafik & Priyono, 2018).

The higher education industry has been greatly affected by globalization and competition. HEIs are adopting market-oriented student-as-customer strategies to differentiate themselves from their competitors and attract as many students as possible by satisfying their current needs and expectations (Duz˘evic´ et al., 2018; Weerasinghe & Fernando, 2017). The authors noted that various scholars have expended considerable effort in developing models for a better understanding of student satisfaction in the HEI setting with mixed results. Some of the more widely cited satisfaction models are the SERVQUAL Model for customers (Parasuraman et al., 2015), the Noel-Levitz Satisfaction Index for students, and the HEdPERF (Higher Education Performance) devised explicitly for the HEI setting by Abdullah (2006).

In an HEI context, Hsu et al. (2016) suggested that students with high satisfaction levels engaged in favorable word-of-mouth communication, recommend programs or return as graduate students. The authors also noted that after leaving the university, students may maintain a relationship with the institution through donations, through cooperation by offering internships to students, offering jobs to new graduates, or cooperating in research projects. Hsu et al. (2016) presented student satisfaction level as a cumulative evaluation of an institution's offerings.

Definition. Student satisfaction is a feeling of happiness obtained when a person's needs and expectations are met or exceeded. Weerasinghe & Fernando (2017) narrowed the definition to the HEI setting by defining student satisfaction as a short-term attitude resulting from evaluating a students' educational experiences. The authors aligned with other scholars in asserting that student satisfaction is a positive antecedent of student loyalty and is the result and outcome of an educational system – the educational experiences, services, and facilities.

Measurement. The measurement instrument for the dependent variable, student satisfaction, is the alumni satisfaction model (ASM), which is to be used for the student learning experience too (Hsu et al., 2016). This multidimensional instrument has two items for measuring student satisfaction – the overall satisfaction and satisfaction level compared with expectation. The measure of student satisfaction (dependent variable) will be limited to the overall satisfaction. Unlike alumni, students of EEd may not be able to evaluate the quality of service against (pre-consumption) expectations independently. The internal consistency reliability measure for the student satisfaction construct was above the recommended level of 0.70. After examining the results, Hsu et al. (2016) found that the student satisfaction construct too had adequate discriminant validity.

Transition Statement

With increasing competition at local and global levels, leaders of HEIs and the EEd programs they run need to emphasize student satisfaction for their organizations' survival and growth. However, some EEd leaders do not know the antecedents and determinants of student satisfaction and how they relate. Section 1 covers why and how

the study will examine the relationship between the quality of learning experience, mentoring, and student satisfaction in EEd institutions in Nigeria with the expectation that improvements in student satisfaction will result in higher levels of revenue, reputation, and sustainability of the EEd institutions.

This study is a quantitative inquiry with a correlational design that can show the strength of the relationship between two variables. I have provided statements of research questions and hypotheses alongside a description of the theoretical models and the operational definition of terms to be used. Section 1 addressed the assumptions, limitations, delimitations, and significance of the study. There is an extensive review of the extant literature on relevant theoretical models, student satisfaction and the quality of learning and mentoring, and the peculiar challenges of EEd and student satisfaction in a developing country environment.

In Section 2, I presented the purpose of this study, the role of the researcher, the study participants, the research method, research design, population, and sampling. In Section 2, I covered the research ethics, data collection instrument, the data collection technique, and data analysis. In Section 3, I presented the findings of the research study, application to professional practice, implications for social change and recommendations for action. In Section 3, I also presented recommendations for further research, reflections, conclusions, appendices, and table of content.

Section 2: The Project

Introduction

This section consisted an overview of the research purpose and the role of the researcher, the choice of participants and how they are to be sampled and a justification of the research method and design. In this section, I clarified how to ensure the ethical protection of participants and the instruments and techniques for data collection. Other components of this section are data analysis, reliability, validity, and how I intended to conduct the actual research to ensure the accuracy and integrity of the information from the research findings.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship between the perceived quality of the student learning experience, perceived quality of mentoring, and student satisfaction in EEd institutions in Nigeria. The independent variables were perceived performance measures: the perceived quality of student learning experience and the perceived quality of mentoring. The dependent variable was student satisfaction. Student satisfaction in higher education is tightly linked with attraction and retention, and hence, a key driver of organizational sustainability. The population from which I drew a sample were students of EEd institutions and programs in Nigeria. From the study findings, leaders of EEd institutions may improve their student satisfaction for a positive impact on their organizations' revenue, reputation, and sustainability. The graduates of EEd institutions and programs in Nigeria may also be more successful in starting a business of their own, becoming less dependent on their

family, being transformed into job creators to benefit their community and the national economy (Ajuwon et al., 2017).

Role of the Researcher

As the researcher in this quantitative study, I adapted and administered a suitable data collection instrument, analyzing and interpreting the data to test the hypotheses and address the research question. In this study, I was responsible for ensuring the data collection, organization, and analysis reliability ethically. I ensured that each participant received the consent letter and fully understood the research's nature and purpose. Quantitative researchers should engage participants in data collection, analysis, and reporting, which provide solutions to social change efforts even under challenging circumstances (Gordon, 2019). Each participant received by email an introduction and invitation with a survey link. I used SurveyMonkey, a web-based data collection tool, for the electronic administration of the survey. I analyzed and presented the findings after data collection was completed. I complied with all ethical protocols established by the Walden University Institutional Review Board (IRB) before contacting the participants. This study adhered to the *Belmont Report's* ethical guidelines and principles, particularly the procurement of informed consent. There were no issues in the study's conduct concerning ethical risk-benefit assessment and selection of subjects of research.

I have not had any relationship with the topic, examining the relationship between the quality of learning experience, mentoring, and student satisfaction in EEd institutions. I had no affiliation or relationship with any of the two partner EEd organizations for this study. However, I have taught entrepreneurship, been involved in setting up and running

an EEd institution, and have strong opinions on the study topic, participants, and research area. I adopted a proven measurement instrument for this study using its existing scales without modification so as not to be biased by any preconceptions on the study topic, participants, and research area.

Participants

The target population was students of EEd programs or studies within a university setting and at a dedicated EEd institution in Lagos State of Nigeria. Apart from offering learning experiences, the partner organizations provided mentoring support to their EEd students. The participants for the study were students of the target institutions, aged 18 years or older, who had completed a minimum of half of their entrepreneurship studies and could therefore offer an informed opinion on their quality of learning experience and the quality of mentoring at their institution. To gain access to participants, first, I completed the Walden University IRB application. Upon receiving conditional approval by Walden University, I sought partner organizations' approval and submitted same to Walden University for final approval. The partner organizations distributed the survey invitations to their students who are over 18 years old and have completed at least half of their EEd program or study at the time of fielding the questionnaire. I created the survey questions and used the free online SurveyMonkey software to deliver the survey after receiving IRB approval from Walden University and the partner organizations. The software generated a web link, which the Director of Center or equivalent at the partner organization emailed to their qualifying participant students in an email dataset. The email to qualifying students was all that was required of the director of center of the

partner organization. In order to improve on response rates, I suggested the subject line "Survey to Measure Student Satisfaction" to convey key information. The email message consisted of a recruitment message and a link to the online website where the consent form and survey were displayed. When a respondent clicked on the web link, the online consent form appeared. Participants were to read and accept the terms of the Consent Form, that they are above the age of 18 years and have completed at least half of their EEd program or study, by clicking an acceptance button and then proceeded to the survey. There was no time limit on how long a participant may choose to read the informed consent page. The consent form consisted of my contact information and allowed for the opportunity for respondents to ask questions of the researcher or Walden University. Since participants implied consent by proceeding past the website's first page, participant data were anonymous. The survey remained open for completion for 4 weeks, and the participants received two reminders. The most commonly used number of reminders in student web surveys is two reminders (Mol, 2017). I sent reminders to students who had not completed the questionnaire in the subsequent week because academic literature suggests a higher response rate in this time frame (Mol, 2017). Subjects participated from any computer and at the time of their choice, making it possible to participate in a private setting and at a time that does not bring attention to participation. All students received an individual link to the questionnaire to access the questionnaire directly, without having to provide a username and password Accessing a questionnaire without having to provide a username and password had a positive effect on the response rate (Porter, 2004 as reported by Mol, 2017). Username and password

credentials unique to the survey administrator protected the online platform. I did not track IP addresses of respondents, thereby ensuring anonymity for the respondents. I did not collect or store identifying information. I downloaded the raw data for analysis in SPSS and stored the data in the Google cloud storage for 5 years as Walden University IRB requires.

Research Method

Researchers use three methodologies when conducting studies: qualitative, quantitative, and mixed-methods. Researchers using quantitative methods collect data from respondents and apply statistical methods to uncover patterns in the data (Queirós et al., 2017). On the other hand, researchers using a qualitative method focus on collecting detailed, descriptive information from a much smaller number of observational units (Queirós et al., 2017). Additionally, McKim (2017) described a third method that uses both quantitative and qualitative methods as the mixed methods approach to research. My selection of a quantitative method for the study was consistent with a deductive approach to using data to test the applicability of satisfaction theory with EEd organizations. The quantitative approach enabled me to evaluate the interrelation between variables, calculated numerically and analyzed using a range of statistical and visual techniques (Saunders et al., 2016). While this may limit the amount of detailed information that could be captured for any one respondent, the quantitative method enables the researcher the advantage of generalizing to a larger population of EEd students in Nigeria. Using a qualitative method to describe or explore a phenomenon (Saunders et al., 2016) is not suitable for examining the relationship between variables as is required to answer the

research question. I did not use a mixed-method because qualitative answers were not required to achieve the research objectives.

Research Design

After selecting a quantitative method, I evaluated the alternative design options, including a correlational study, experimental and quasi-experimental study. Researchers use correlational research to identify the strength of a relationship between two or more variables (Cho & Lee, 2018; Ustav & Vanesaar, 2018). While correlation shows the relationship between the two variables, regression allowed me to see how one variable affected another. Regression analysis helped me to determine the functional relationship between two variables to estimate the unknown variable to make future projections on events and goals (Valaskova et al., 2018). The research design involved a multiple regression analysis to visualize the relationship between the independent variables, perceived quality of student learning experience and perceived quality of mentoring, and the dependent variable, student satisfaction. This allowed me to assess the strength of the relationship between an outcome and several independent or predictor variables and the importance of each of the independent or predictor variables to the relationship.

The alternative quantitative designs which I considered were experimental and quasi-experimental. Experimental researchers investigate the cause-and-effect relationship among a group of variables, identify and impose control over all variables except the dependent variable (Adelaja & Minai, 2018; Wu et al., 2018). Participants are randomly assigned to either the treatment or the control group in a true experiment, whereas they are not assigned randomly in a quasi-experiment. Researchers using a

Quasi-experimental method do not randomly assign participants to treatment or control groups for comparison (Miller et al., 2020). I rejected the experimental and quasi-experimental designs because they require that the environment be controlled so that extraneous variables may be eliminated and the independent variable isolated and manipulated to observe its effect on the dependent variable. Unlike experimental design that establishes a cause and effect, my study only seeks to identify relationships among variables. Based on the experimental design characteristics, my study does not align with an experimental research design.

Population and Sampling

The proper definition or specification of the population is critical because it guides others in appraising the credibility of the sample, sampling technique(s), and outcomes of the research. In quantitative and qualitative studies, the target population is an entire group that requires some information. The study population is a subset of the target population from which the sample is actually selected, and the sample frame is the list of members of the population of interest from which a probability sample is selected by a researcher (Hu, 2014). Hu further affirmed that probability sampling is often considered the best way to get representative sampling. The sampling frame, the list or other device used to define a researcher's population of interest, is a critical component in probability sampling. A sample is a group of people, objects, or items that researchers take from a larger population for measurement. Sampling is a technique (procedure or device) employed by a researcher to systematically select a relatively small number of representative individuals (a subset) from a pre-defined population to serve as subjects

(data source) for observation or experimentation as per objectives of a study (Asiamah et al., 2017).

Population

The target population of this study was students of EEd programs in HEIs in Nigeria. The sample population was students of EEd programs in dedicated EEd institutes (standalones) or in postgraduate studies and executive programs (multidisciplinary) university setting in Lagos State, Nigeria. The latter expressly excludes undergraduate students of all tertiary institutions in Nigeria who, irrespective of their degree program, have had to enroll in a compulsory six-credit unit entrepreneurship course since the 2007/2008 academic year. Because of numerous implementation and impact problems associated with the mandatory undergraduate EEd programs (Agbonlahor, 2016; Ezeani, 2018) and to protect the credibility of the sample and outcome of the study, undergraduate students were excluded from the study population. Governments and education policymakers may have made EEd studies compulsory so that all Nigerian undergraduates appreciate entrepreneurship (education in entrepreneurship), but the focus of this research is education for entrepreneurship that enables graduates of EEd to start and develop a business of their own (Mwasalwiba, 2010). Enrolment in an EEd program for a business startup (education for entrepreneurship) was the criterion for selection.

Sampling

I adopted a non-probabilistic (nonrandom) sampling technique for this study. The procedure was purposive for selections from the sample population: students of EEd

program at postgraduate level in university and HEI settings and at dedicated or standalone EEd institutes in Lagos State. The sample population includes students of over 100 small to medium-sized dedicated EEd institutes and nine Federal and State universities in Lagos State. Only three of the universities offer EEd as executive programs at the postgraduate level.

Purposive sampling, also known as judgmental, selective, or subjective sampling, reflects a group of sampling techniques that rely on the researcher's judgment when it comes to selecting the units (e.g., people, case/organizations, events, pieces of data) that are to be studied. Rivera (2018) and Sarstedt et al. (2017) cautioned that sample selection in purposive sampling not only limits the study's generalizability or external validity, but it also is prone to researcher bias and restricts the study's ability to be replicated by other scholars who may decide, based on their expertise, a different sample selection. Although inferences made from a purposive sample may be misleading or simply incorrect about a larger population, the researcher's findings apply to the studied sample.

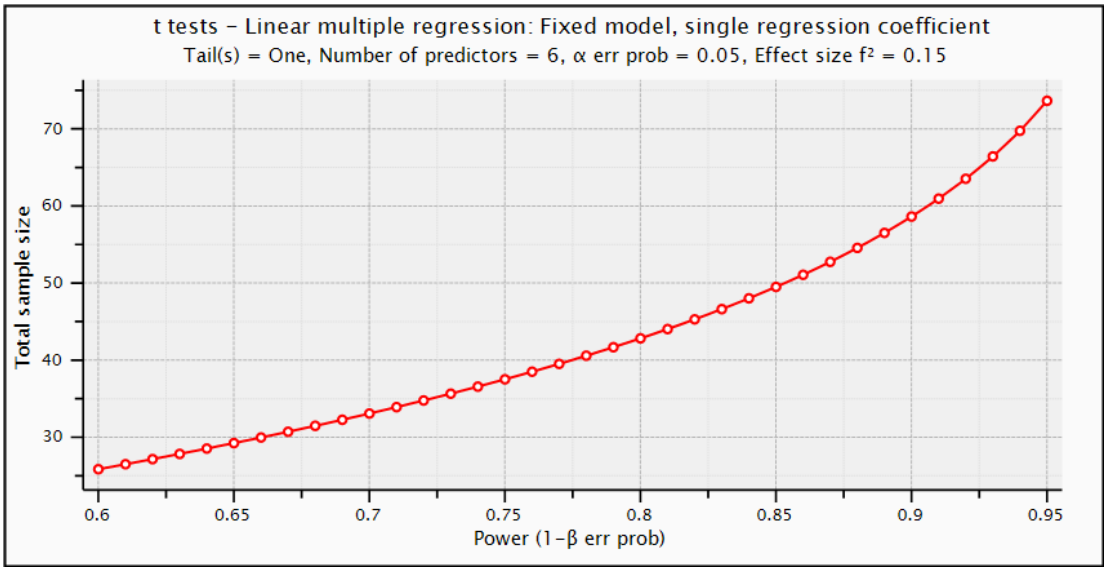
The sampling frame was the list of students of EEd in the two partner organizations in Lagos State. The sample included students of EEd in the two partner organizations in Lagos State who are aged 18 years and above and who have completed at least 50% of their EEd studies at the time of fielding the study questionnaire. The two partner EEd institutions in the study were purposively selected and a census of their eligible students conducted for ease of access, low cost, and timely execution of the study without sacrificing the capacity to fulfill the purpose and objectives of the research study.

I am mindful of the risk of researcher bias in the categorization of institutions. The selection of the two EEd institutions—a provider of EEd in a postgraduate or executive education university setting and a dedicated EEd institute—represent the two major categories of EEd organizations in the HEI setting. I expected a census of eligible students for this study at the two partner EEd organization to yield 143 student participants as predetermined below.

G*Power is a statistical software package that researchers use to conduct an a priori sample size analysis (Faul et al., 2009) in quantitative studies. Using G*Power 3.1.9.7 software, I conducted a power analysis to determine the appropriate sample size for the study. An a priori power analysis, assuming a medium effect size ($f^2 = .15$), $\alpha = .05$, and six predictor variables (two independent variables and four control demographic variables), identified that a minimum sample size of 43 participants is required to achieve a power of .80. The effect size is a quantitative measure of the magnitude of the experimental effect: the more significant the effect, the stronger the relationship between two variables. The use of a medium effect size ($f^2 = .15$) was appropriate for my study. The medium effect size was based on the analysis of Rafik and Priyono (2018), and Kasiri et al. (2017) where customer satisfaction was the outcome measurement. Cohen (1992) reported that effect size between .02 and .15 is considered small, between .15 and .30 is considered medium, and above .30 is considered high.

Figure 2

Sample Size as a Function of Statistical Power.



Response rates in educational research vary widely from 45% in Rafik and Priyono (2018) to 27% for Hsu et al. (2016). I adopted a realistic response rate of 30% for this study requiring that I poll a census of 143 participants across the two partner organizations for the study (see Figure 2).

Ethical Research

A purely administrative process of ethics review is inadequate as ethical research entailed resolving a potential series of ethical dilemmas as they arise during the research (Head, 2020). The author emphasized that researchers must demonstrate control over a range of matters in educational research, including privacy, anonymity, consent, and power. For this educational research study, the partner organizations are the two EEd institutions in Lagos State - the university running EEd as a postgraduate or executive education program and the dedicated standalone EEd institute.

The students of EEd at the partner organizations who are eligible for this study must accept the invitation to participate in the study. The participants' volunteering rights and confidentiality are essential to the research process (Petrova et al., 2014). The participants will be required to fill out an informed consent. The Consent Form will educate the participants about their rights, including the right to withdraw from the study without penalty and instructions on how to withdraw from the study. Consistent with the protocol of the Belmont Report (Friesen et al., 2017), the foundation document that reset the ethics of human subject research, I ensured through the recruitment email and filling of the Consent Form, that participants have a full understanding of their part in the study, can assess risks and benefits and provide informed consent. Walden IRB review of this research proposal will help ensure that I comply with the requirements and proceed with data collection after receiving IRB approval (IRB Approval number 04-01-22-0993183). I will not collect participants' signatures or identities in any form. The information on the Consent Form will be anonymous, and the students will not receive compensation for participating.

I did not have a formal role at the partner organizations other than being a guest researcher. The partner organizations will be responsible for selecting student participants who meet stipulated eligibility criteria and distributing the questionnaire. As earlier stated, I purposively sample the partner organizations, and the total population of eligible students at these partner organizations were sampled. I chose to sample the total population of eligible students due to the small size of the population of students in the targeted dedicated EEd institute and graduate students of EEd in the targeted university in

Lagos State who are aged 18 years and above and will have completed at least half of their EEd program or study. It is important not to reduce the sample size with other criteria and create more significant scope limitations and generalizations for the study. The final return will include all eligible students who voluntarily chose to complete the survey as part of the study.

Data Collection: Instruments

The instrumentation chosen to measure the independent and dependent variables is a survey. According to Lake et al. (2017), researchers used a survey as a tool to gather data from organizations or individuals. Hoh et al. (2018), Mwiya et al. (2017), Raspopovic and Jankulovic (2017), and Shahsavar and Sudzina (2017) administered surveys to examine student satisfaction experiences, the study dependent variable.

This study is based on a model of customer satisfaction – DPS link model of the EDT – and the independent variables to be examined for their relationship with and predictive value to student satisfaction are the quality of learning experience (service quality) and the quality of mentoring in a HEI setting like a dedicated EEd institute or a university. Although EDT became the dominant model for predicting customer satisfaction, the use of DPS instead of EDT is more common in the HEI context (Rafik & Priyono, 2018).

Rafik and Priyono (2018) reported that many scholars such as Abdullah (2006) and Hsu et al. (2016) adopted and modified the well know instruments, such as SERVQUAL, to develop a new model of service quality that was believed to be more relevant in the context of HEI. Using alumni as a source of data, Hsu et al. (2016)

formulated service quality dimensions directly related to the process of knowledge transfer rather than the quality of administrative services. From the result, the authors proposed three dimensions of service quality in HEI: course design, teaching staff, and campus environment. Hsu et al. (2016) also linked the dimensions with satisfaction and loyalty and confirmed the predictive relevance of such dimensions on satisfaction.

Quality of Learning Experience (Perceived Quality) Scale

Rafik and Priyono (2018) defined service quality as the totality of features and characteristics of a product or service deliberately offered to meet both the implied and stated needs of customers. Hsu et al. (2016) proposed a decomposed model that breaks down service quality into three sub-constructs: (1) course design, (2) teaching staff, and (3) campus environment. In the absence of a consensus about service quality in higher education, Hsu et al. adopted these three most commonly referred constructs. Hsu et al. further report that course content, also known as curriculum, has been found by many researchers to be one of the essential determinants of the student's overall service quality (Weerasinghe & Fernando, 2017; Yeo & Li, 2013). The authors cited other authorities on the teaching staff sub-construct as a summation of a lecturer's performance and carry the ideas of empathy, devotion to duty, and commitment to teaching, which is another potential determinant of perceived quality (Weerasinghe & Fernando, 2017; Yeo & Li, 2013). Hsu et al. (2016) identified the physical infrastructure, including up-to-date hardware for student exploitation as elements within the campus environment construct, and cited numerous authorities in support of the campus environment being a potential

determinant of perceived quality (Asare-Nuamah, 2017; Beloucif et al., 2018; Espinoza et al., 2017; Weerasinghe & Fernando, 2017).

Hsu et al. (2016) asserted that the proposed grouping of course design, teaching staff, and campus environment represents "the student learning experience." Hsu et al. best meets the criteria for the selection of a measurement instrument for the study because it measured service quality, the perceived quality of the student learning experience, as an antecedent of student satisfaction in HEI setting with good indicators of validity and reliability and has been widely cited by the scientific community. The instrument used by Hsu et al. (2016) for measuring the dimensions of perceived quality (course design, teaching staff, and campus environment) represented the quality of student learning experience in this study. I incorporated a 14-item scale also used by Hsu et al. (2016) to measure this independent variable (Appendix A).

Quality of Mentoring Scale

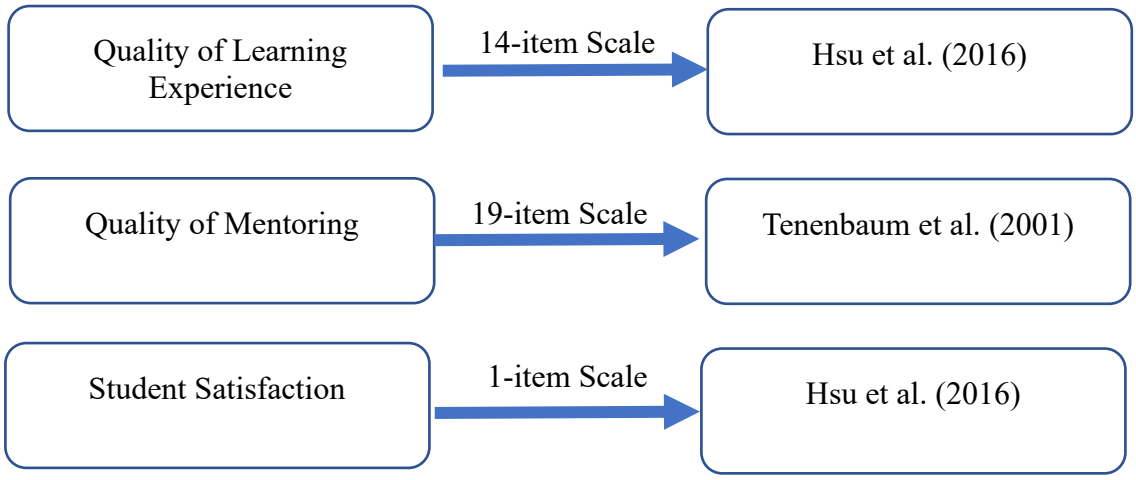
The second independent variable in this study is the perceived quality of mentoring. The measurement instrument that I will use in this study is adopted from Tenenbaum et al. (2001). The scale instrument has good indicators of validity and reliability and meets the goals of this study as it was adapted for graduate school students and measures instrumental help, networking help and, psychosocial help (Section A of a 4-part instrument). The two items that were omitted from the Dreher and Ash (1990) survey measurement instrument before adoption by Tenenbaum et al. (2001, p. 331) were irrelevant to graduate students.

Student Satisfaction Scale

Hsu et al. (2016) adapted one of the most widely used satisfaction measures in higher education, the student satisfaction inventory marketed by Noel-Levitz, a consulting firm specializing in higher education and adopted Fornell (1992) question on customer satisfaction and tailored it to fit their student satisfaction context. The measurement instrument did not include measures for Fornell's two-item scale for student loyalty as this will be outside the scope of this study. I incorporated only overall satisfaction in the 2-item scale of measurement for Student Satisfaction in for Hsu et al. (2016). See Figure 3 for the list of independent and dependent variables, the scales used to measure the variables, and the prior researchers that used the survey instrument that aligned to the variables. See Appendix A for specific survey questions for all variables.

Figure 3

Survey Instrument Alignment



The measurement instrument to be used for this study consists of four sections (a) perceived quality of learning experiences, (b) perceived quality of mentoring, (c)

demographics, and (d) student satisfaction (See Appendix A). Hammer (2011) reiterated the importance of collecting and describing characteristics of research participants, especially if and when the inclusion of such information will significantly add to the field's knowledge base and understanding of universals and variations that exist among populations. The author's advice has been weighed against the confidentiality and time burden on student participants in limiting the demographic questions to only age group, gender, employment status, and type of study at the institution.

Questions 1 to 14, from Hsu et al. (2016), measure the dimension of perceived quality of student learning experience and cover Course Design (3 items), Teaching Staff (4), and Campus Environment (7). Questions 15 to 33 measure the dimension of perceived quality of mentoring (Tenenbaum et al., 2001). Question 34 is on Student Satisfaction (Hsu et al., 2016). Questions 35 to 38 cover demographics and brought the total questions in the measurement instrument of this study to 38. The questions in Section 1 (Questions 1 to 14) will be a 10-point Likert-type scale measurement. The range of scores on the survey for questions in Section 1 will provide each participant the choice of 1 (strongly disagree) to 10 (strongly agree) (Hsu et al., 2016). The 5-point Likert scale response format for all items in the mentoring dimension (Section 2) is as follows: not at all = 1, to a small extent = 2, to some extent = 3, to a large extent = 4, and to a very large extent = 5 (Tenenbaum et al., 2001; Dreher & Ash, 1990). The dependent variable (student satisfaction) measurement was from 1 to 10, with 1 (being extremely dissatisfied) to 10 (being extremely satisfied). Ordinal Likert scaling is commonly used

by researchers to measure participants' experiences (Madhav et al., 2019: Luis et al., 2019).

Demographics are important because they provide a broad understanding of the different characteristics of a population based on factors such as age, gender, race, and socio-economic status. Dzisi et al. (2020) examined the spread and use of app-based ride-hailing among the demographic most likely to use it at the Kwame Nkrumah University of Science and Technology (KNUST) amidst complaints of commercial vehicle drivers that ride-hailing was disrupting their business. The authors found that young people were inclined towards app-based ride-sourcing because it is convenient and presents a cost advantage over conventional taxis.

The regression models the relationship between the perceived quality of the student learning experience and the perceived quality of mentoring and student satisfaction among students of EEd institutions in Nigeria. Hsu et al. (2016) explored the determinants of alumni satisfaction. They administered the service quality and student satisfaction instrument to elicit responses from 243 and 112 participants in the first study in 2010 and the second study in 2013. The internal consistency reliability measures for perceived quality and overall satisfaction variables were at least 0.95 and well above the recommended level of 0.7. To assess discriminant validity, Hsu et al. (2016) conducted an appropriate average variance extracted (AVE) analysis to test whether the square roof of every AVE belonging to each of the latent constructs is much larger than any correlation among any pair of latent constructs. Hsu et al. (2016) found that all constructs

had adequate discriminant validity with a level of fit sufficient to proceed with an assessment of the structural equation models.

Reliability and Validity

Reliability and validity are the two most fundamental features in evaluating any measurement instrument or tool for good research. Reliability concerns the faith that one can have in the data obtained from the use of an instrument, that is, the degree to which any measurement tool controls for random error, while validity concerns what an instrument measure and how well it does so. Reliability is a necessary but not sufficient condition for the validity of research; therefore, reliability and validity are critical considerations within a study (Taherdoost, 2016).

Researchers use reliability to evaluate the stability of measures administered at different times to the same individuals (Kimberlin & Winterstein, 2008); therefore, the better the reliability, the more accurate the results. The reliability coefficient falls between 0 and 1, with perfect reliability equaling 1 and no reliability equaling 0. In statistical tests of correlation in high stakes settings (e.g., licensure examination), reliability should be greater than .9, whereas for less critical situations, values of .8 or .7 may be acceptable. The general rule is that reliability greater than .8 is considered high (Downing, 2004).

In research, validity has three essential parts: a) internal validity (credibility), b) external validity (transferability), and c) construct validity. Both internal validity (credibility), which refers to the structure of a study and its variables and external validity (transferability), which relates to how universal the results are applied primarily to

qualitative studies (Hoareau et al., 2017). Construct validity, more relevant to a quantitative study, is the extent to which the measure behaves in a way consistent with theoretical hypotheses and represents how well scores on the instrument are indicative of the theoretical construct (Hehman et al., 2019). The construct validity in this study is the appropriateness of inferences made on the basis of observations or measurements (test scores for elements of the quality of student learning experience and quality of mentoring), specifically whether the test can reasonably be considered to reflect the intended constructs.

Convergent and discriminant validity are the two subtypes of validity that makeup construct validity. Convergent validity refers to the degree to which two measures of constructs that theoretically should be related, are in fact related. In contrast, discriminant validity tests whether concepts or measurements that are supposed to be unrelated are, in fact, unrelated (Roener et al., 2021). For this study, if a measure of student learning experience had convergent validity, then construct similar to student learning experience (achievement, scholarship, training, etc.) should relate positively to the measure of a student learning experience. If this measure has discriminant validity, then construct that are not supposed to be related positively to student learning experience (ignorance, novice, immaturity, inexperience, etc.) should not relate to the measure of quality of student experience. Measures can have one of the subtypes of construct validity and not the other. Using the example of the student learning experience, a researcher could create an inventory where there is a high positive correlation between the student learning experience and scholarship, but there is also a significant positive correlation between the

student learning experience and ignorance, then the measure's construct validity is called into question. The test has convergent validity but not discriminant validity.

Hsu et al. (2016) noted that to assess the convergent validity of constructs, researchers using Partial Least Squares (PLS) report the internal consistency and discriminant validity. Hsu et al. listed the internal consistency of each reflective construct and found that all internal consistency reliability measures were above the recommended level of .70. After examining the results, Hsu et al. also found that all constructs have adequate discriminant validity with a level of fit that is sufficient to proceed with an assessment of the structural equation models.

In developing measures, Hsu et al. (2016) used a panel of experts to provide a comprehensive view on service quality. Hsu et al. enhanced the content validity of the study by seeking the view of experts on survey questions that cover all aspects of the construct being measured. The consensus provided a baseline for developing and evaluating the validity of the survey. The authors adopted the 10-point Likert scale to reduce the statistical problem of extreme skewness (Fornell, 1992) and tested the preliminary survey with 15 alumni, doctoral students, and faculty familiar with the issues of alumni satisfaction.

Data Collection Technique

The research question for this study is – what is the relationship between perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction among students of EEd institutions in Nigeria? To answer the research question, I used a data collection technique, a survey using an online

administered questionnaire targeted at eligible participants – EEd students aged 18 years and above in an executive program or postgraduate university setting and at a dedicated EEd institute in Lagos State who have completed at least half of their EEd program or studies. The Director of Center or equivalent of the partner institutions distributed the email invitation to their eligible students with a link to the Consent Form and questionnaire hosted on the online system SurveyMonkey. I used the free online SurveyMonkey software to deliver the survey and receive participant responses in an Excel format for transfer into SPSS for analysis.

Surveys are a fast and efficient way to collect data for research, even more so in an online environment (Saleh & Bista, 2017). Nayak and Narayan (2019) confirmed that online surveys are helpful in questionnaire preparation, data collection, storing data, visualization of data, and collaboration of work but also highlighted challenges related to online surveys being the sampling, response rate, non-respondent characteristics, maintenance of confidentiality, and ethical issues. Conducting a survey grants direct access to the participant but may delay the chance of response. Although incentives increased completion rates (Robb et al., 2017), the participants will not be offered any monetary incentive for participating in the study. The use of a reminder email is considered adequate to reach the necessary sample size.

Data Analysis

The purpose of undertaking this quantitative correlational study is to examine the relationship, if any, between the perceived quality of learning experience, perceived

quality of mentoring, and student satisfaction. The research question and related hypothesis formed from the purpose of this study is:

What is the relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction among students of EEd institutions in Nigeria?

H_0: There is not a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

H_a: There is a statistically significant relationship between the perceived quality of the student learning experience, the perceived quality of mentoring, and student satisfaction.

The demographic data type in this study are nominal for age, gender, employment status, and type of study and dichotomous for gender. The Likert data for this study's independent and dependent variables are an interval scale (Wu & Leung, 2017). The descriptive analysis supports a comprehensive view of the data and exposes a possible pattern (Irzavika & Supangkat, 2018). A correlational analysis does not address the direction of the relationship between the independent and dependent variables. Similarly, a limitation of the correlational analysis is that researchers cannot indicate causation between variables (Theofanidis & Fountouki, 2018). Researchers use multiple linear regression to predict a nominal dependent variable given one or more independent variables. More specifically, the researcher will be able to: (a) determine which of the independent variables (if any) have a statistically significant effect on the dependent

variable, and (b) determine how well the multiple linear regression model predicts the dependent variable. By conducting a multiple linear regression analysis, I achieved the purpose of this study by identifying the relationships between student satisfaction (dependent variable) and the perceived quality of learning experience, and the perceived quality of mentoring (independent variables).

Other models to consider when examining data include an ANOVA test, Pearson's correlation coefficient, and multivariate analysis of variance (MANOVA). Researchers use the one-way analysis of variance (ANOVA) test to determine whether there are any statistically significant differences between the means of two or more independent groups. The use of an ANOVA test requires that the independent variable be categorical, while linear regression allows a more flexible framework incorporating continuous and categorical independent variables (Plonsky & Oswald, 2017). Researchers use multiple regression to predict a continuous dependent variable given two or more independent variables. Researchers also use multiple regression to determine how much the independent variables can explain the variation of the dependent variable over and above the mean model. Researchers use Pearson's correlation coefficient when measuring relationships between two continuous variables (Warrens, 2015). For these reasons, a multiple linear regression model is more suitable for this study.

A considerable body of statistical literature suggested that the application of parametric data measures such as means and the standard deviation is valid for most Likert-type data (Stratton, 2018). The parametric tests are more valid when researchers use a survey scale method in which multiple interrelated Likert questions are evaluated to

generate a mean measure of a single topic (Stratton, 2018). Wu and Leung (2017) stated that there are pros and cons in using the Likert scale as an interval scale, but that the controversy can be handled by increasing the number of points and several researchers have suggested bringing the number up to eleven, on the basis of empirical data, to use 11-point Likert scale from 0 to 10, a natural and easily comprehensible range (Wu & Leung, 2017). Wu and Leung (2017) supported arguments in favor of considering Likert scales as continuous interval scales enabling the use of parametric methods for the analysis of the sum of the Likert scales in this study.

Before performing the statistical tests, researchers conduct a data cleaning procedure to satisfy the assumptions (Krishnan et al., 2016). Researchers using multiple linear regression need to avoid or remediate multicollinearity and outliers and deal with assumptions of normality, linearity, homoscedasticity, and independence of residuals (Fife, 2020). Multicollinearity occurs when two or more independent variables are correlated with each other (Yoo & Cho, 2019). This leads to problems with understanding which independent variable contributes to the variance explained in the dependent variable and technical issues in calculating a multiple regression model. A variance inflation factor is appropriate for measuring multicollinearity, in which results of 9 or less are acceptable levels of multicollinearity (Stunda, 2019). This type of relationship could display false relationships if not addressed and result in inaccurate statistical measures. I will not have to deal with situations where multicollinearity might not be severe (VIF of less than 5) and might not affect the variables I am most interested in (perceived quality of student learning experience and perceived quality of mentoring).

I will get rid of structural multicollinearity by centering the variables, which is also known as standardizing the variables by subtracting the mean and if I find severe multicollinearity in my data which I have to deal with I will adopt the Ridge regression procedure in SPSS (Frost, 2019).

Outliers represent observations in the data set that are unusual when about to perform a multiple regression analysis. Such outliers can reduce the predictive accuracy of the results as well as the statistical significance. When using SPSS Statistics to run multiple regressions on data, it is possible to detect outliers, high leverage points and influential points. Stephen and Senthamarai (2017) investigated the presence of outliers based on existing procedures of residuals and standardized residuals. Next, the authors used the new approach of standardized scores for detecting outliers without the use of predicted values, and the performance of the new approach was verified with real-life data. There is a need to check that the residuals (errors) are approximately normally distributed. In order to be able to use inferential statistics, the errors in prediction – the residuals – need to be normally distributed. A standard method used to check the assumption of normality of the residuals is a histogram with a superimposed normal curve and a P-P Plot (Keya & Rahmatullah, 2016). I will remove outlier data that is a measurement error or data entry error if it cannot be fixed or not a part of the population under study, documenting the excluded data points with explanations for my reasoning (Frost, 2019). If I cannot legitimately remove outliers that violate the assumptions of my statistical analysis, I will adopt bootstrapping technique by using the sample as they are and do not make assumptions about distributions (Frost, 2019).

The researcher's assumption of linearity is based on the need to have a linear relationship between (a) the dependent and each independent variable and (b) the dependent variable and the independent variables collectively. The assumption of linearity in a multiple regression needs to be tested in two parts (a) to establish if a linear relationship exists between the dependent and independent variables collectively, which can be achieved by plotting a scatterplot, and (b) to establish if a linear relationship exists between the dependent variable and each of the independent variables which can be achieved using partial regression plots (Shao et al., 2017). If the assumption of linearity is in question, I will assess the residual plots, apply subject-area knowledge and try modifying the model. After correcting the problem and refitting the model, the residuals will look agreeable and random (Frost, 2019).

The data for multiple regression needs to show homoscedasticity of residuals (equal error variances). The assumption of homoscedasticity is that the residuals are equal for all values of the predictive dependent variable. To check for homoscedasticity, residuals can be tested using the Breusch-Pagan test (Djalic & Terzic, 2021) based on an auxiliary regression of the squared residuals on the independent variables. It is desirable to have independence of observations (i.e., independence of residuals). The assumption of independence of observations in multiple regression is designed by researchers to test for 2nd-order autocorrelation, which means that adjacent observations (specifically their errors) are correlated (i.e., not independent). In SPSS Statistics, the independence of observations can be checked using the Durbin-Watson statistic (Mahaboob et al., 2019), which researchers run as part of the multiple regression procedure. I will use weighted

regression to minimize the sum of the weighted square residuals, which with correct weights, replaces heteroscedasticity with homoscedasticity (Frost, 2019).

Researchers address these assumptions by minimizing the effects of unusual data points or unintended correlations between the variables influencing the study's results. Curley et al. (2019) stated that the three commonly used approaches to missing data – listwise deletion, single imputation, and multiple imputations – showing a preference for multiple imputations. Further review of the data for missing items is necessary before conducting statistical analysis. By definition, missing data are unanswered responses to key variables within the dataset. If found, I will remove the participant from the sample (Kafantaris et al., 2020).

Once the researcher completes the data collection and cleaning process, the data analysis can begin. Using the multiple linear regression, $\alpha = .05$ (two-tailed), the researcher will examine the influence of the independent variables on the dependent variable. The researcher assesses the *F* test's significance level to indicate if the model can significantly predict student satisfaction. The R^2 value will measure the percentage of variation in student satisfaction that is accounted for by the linear regression of the independent variables. Researchers use the *t*-test to test the hypotheses, and the coefficients will be evaluated as significant or not (Green & Saikind, 2017).

To further analyze the data, researchers can identify the relationship's direction and the level of influence that the independent variables have with the dependent variable. The beta (β) of the unstandardized coefficient classifies this relationship; for example, if the beta is negative, the independent variable has an inverse relationship with

the dependent variable (van Ginkel, 2020). The β will address the amount that the dependent variable will increase or decrease for each 1-point increase in the independent variable. The multiple regression analysis will allow a researcher to see if and to what extent the quality of learning experience and quality of mentoring predict student satisfaction. An additional analysis called the squared semi-partial coefficient (sr^2) can address the strength in the relationship between the dependent and independent variables while controlling for the other independent variables (Wong, 2017). The identified strength could help the researcher understand which variable, quality of learning experience or quality of mentoring, has a stronger influence on student satisfaction.

To best measure the statistical tests, researchers typically choose statistical software. The Statistical Package for the Social Sciences (SPSS) software is the most commonly used software in social science research (Mut et al., 2019). From this reference, I used SPSS to conduct the data analysis component of this study.

Study Validity

Internal validity is the extent that researchers control the effects of peripheral variables on possible alternative explanations of the results (O'Dwyer & Bernauer, 2014). In response, researchers can strategically design the study to address and minimize the threats of peripheral variables. Within nonexperimental studies, O'Dwyer and Bernauer (2014) warned that the usual threats to internal validity include "subject characteristics threats, location threats, instrumentation threats, testing threats, and attrition threats" (p.162). The quality of the study's outcome depends on the researcher's ability to address threats to internal validity.

Subject characteristics and location threats occur when the sample has different features or environments that affect how they respond to the survey (Fabrigar et al., 2020). As applied to this study, employees might answer the survey differently than those who are self-employed. The university (multidisciplinary) participants setting might answer the survey differently than those in dedicated EEd institutes. To help control for these threats, the survey includes demographic questions to reveal the participant's characteristics. Instrumentation threats relate to the survey's delivery and conditions during the collection process (Matthay & Glymour, 2020). Administering the survey online can reduce researcher influence on how participants respond and ensure a consistent delivery process across the sample. The final internal validity concerns are testing and attrition threats or replication "failure" (Fabrigar et al., 2020), which do not apply to this study since participants are only surveyed once throughout the data collection process.

Researchers also need to consider the statistical conclusion validity to ensure the correctness of the identified strength between the variables, which comprises of Type I or Type II errors (Fabrigar et al., 2020). A Type I error occurs when the results falsely indicate a significant relationship exists, where a Type II error occurs when the results falsely indicate no relationship exists (Shao et al., 2017). The minimization of these errors could help strengthen the interpretation of the results. To minimize a Type I error, researchers should follow some proven guidelines. To start, the researcher should maintain an alpha of .05 or less and ensure an adequate level of statistical power through the sample size and effect size (Thompson, 2019). To protect against a Type I error, the

computation of the sample size for this research study used an alpha of .05, medium effect size, and statistical power of .80. Another guideline for minimizing a Type I error in a linear regression model is addressing the "independence, normality, homoscedasticity, and linearity" assumptions (Fife, 2020, p. 1056). As mentioned in the Data Analysis section, the researcher will test these four assumptions to minimize the effects of a Type I error. By implementing these strategies, a researcher can reduce the chance of obtaining significant false results.

Balancing the effects of a Type I error involves understanding how changes to the alpha and statistical power affect the Type II error. As researchers reduce the effects of a Type I error, the chances of a Type II error may increase (Matuschek et al., 2017). To offset a possible increase to a Type II error, researchers should increase the sample size to increase the statistical power (Kaur & Stoltzfus, 2017). By implementing this strategy, a researcher can reduce the chance of obtaining false nonsignificant results.

Further, addressing the study's validity includes reviewing external validity. External validity relates to the extent that the findings can be generalized to a larger population (Theofanidis & Fountouki, 2018). Threats to external validity include the effects of modifiers that cause differences between the target population and the population at large (Hayes-Larson et al., 2019). Modifiers to address in this study could include differences between students on the compulsory undergraduate EEd courses and other institutions focused on education in, rather than for, entrepreneurship compared to the sampled population. Researchers can compare the participants' characteristics with the populations' characteristics to help reduce the effects of external validity (Avellar et

al., 2017). Matthay and Glymour (2020) suggested carefully stating the findings to ensure direct alignment with the tested and sample observed variables. In this study, I have focused on students of executive education in university settings and of dedicated EEd institutes whose learning experience and mentoring support is geared towards education for entrepreneurship (business start-up and development). I will address these items to ensure the findings are generalizable to the sample population.

Transition and Summary

Section 2 comprised the purpose statement, the role of the researcher, participants in this study, research method and design, and population and sampling. Throughout the subcategories, I was attentive to the study's primary purpose when selecting a method, design, and population to sample from. With a desire to assess any relationship between the quality of learning experience, quality of mentoring, and student satisfaction, I will utilize a quantitative study with a correlational design. Further subcategories related to the researcher's quality included the need to conduct ethical research, use an acceptable instrument and collection technique, and analyze the data in a valid and reliable manner. By addressing the validity and reliability of the study, the researcher can adequately assess the relationship between the indicated variables and achieve the purpose of this study.

Section 3 comprises the findings from the data collected and how these findings may be put into practice in the business profession and society-at-large. Section 3 also lists suitable recommendations for action and further research. Finally, in Section 3, I present reflections and conclusions.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlational study was to examine the relationship between the perceived quality of learning experience, mentoring, and student satisfaction in EEd institutions in Nigeria. The independent variables were measures of perceived performance: the perceived quality of learning experience and perceived quality of mentoring. The dependent variable is student satisfaction. The null hypothesis was rejected, and the alternative hypothesis was accepted. Perceived quality of learning experience and the perceived quality of mentoring significantly predicted student satisfaction.

Presentation of Findings

Descriptive Statistics

In total, I received 65 surveys. Eighteen records were eliminated due to missing data resulting in 47 records for the analysis. The modal age group was 26- to 35-year-olds. 55% of the usable sample were full-time students and 62% were women. The sample characteristics are presented in Table 2 below.

Table 2

Sociodemographic Characteristics of the Participants

Sample Characteristics	N	%
Age		
18 – 25 years	8	17.0
26 – 35 years	19	40.4
36 – 45 years	7	14.9
46 – 55 years	10	21.3
56 years and above	3	6.4
Employment Status		
Unemployed	9	19.1
Part-time Employed	1	2.1
Full time Employed	11	23.4
Self Employed	26	55.3

Note. N = 47

The overall satisfaction was relatively high (M = 8.94, SD = 1.36). The Cronbach alphas for the 14 perceived quality of student learning experience and 19 perceived qualities of mentoring items were .773 and .919 respectively. The descriptive statistics are presented in Table 3 below.

Table 3

Descriptive Statistics

			Range		Cronbach
	Mean	Std Dev	Min	Max	Alpha
Overall Satisfaction	8.94	1.36	8.53	9.30	
Learning Experience	9.14	.91	8.86	9.38	.773
Mentoring	3.57	.78	3.32	3.79	.919

Note. N = 47

Test of Assumptions

The assumptions of multicollinearity, outliers, normality, homoscedasticity, linearity, and independence of residuals were evaluated.

Multicollinearity

Multicollinearity was evaluated by examining the correlation coefficients among the predictor variables. The bivariate correlations were small to medium (see Table 4) and with a VIF = 1.27 (see Table 5) the violation of the assumption of multicollinearity was not evident.

Table 4

Correlation Coefficients Among Study Variables

Variable	Satisfaction	Learning Experience	Mentoring
Satisfaction	-		
Learning Experience	.337*	-	
Mentoring	.663**	.391*	-

*$p < .05$. **$p < .01$

Table 5

Collinearity

	Collinearity Statistics	
	Tolerance	VIF
Constant		
Learning Experience	.785	1.27
Mentoring	.785	1.27

Outliers, Normality, Linearity, Homoscedasticity, and Independence of Residuals

Outliers, normality, linearity, homoscedasticity, and independence of residuals were evaluated by examining the Normal Probability Plot (P-P) of the Regression Standardized Residual (Figure 4) and the scatterplot of the standardized residuals (Figure 5). The examinations indicated there were no major violations of these assumptions. The

tendency of the points to lie in a reasonably straight line (Figure 4), diagonal from the bottom left to the top right, provides supportive evidence the assumption of normality has not been grossly violated (Pallant, 2007 as reported in Arkorful et al., 2021). The lack of a clear or systematic pattern in the scatterplot of the standardized residuals (Figure 5) supports the tenability of the assumptions being met.

Figure 4.

Normal Probability Plot (P-P) of the Regression Standardized Residuals

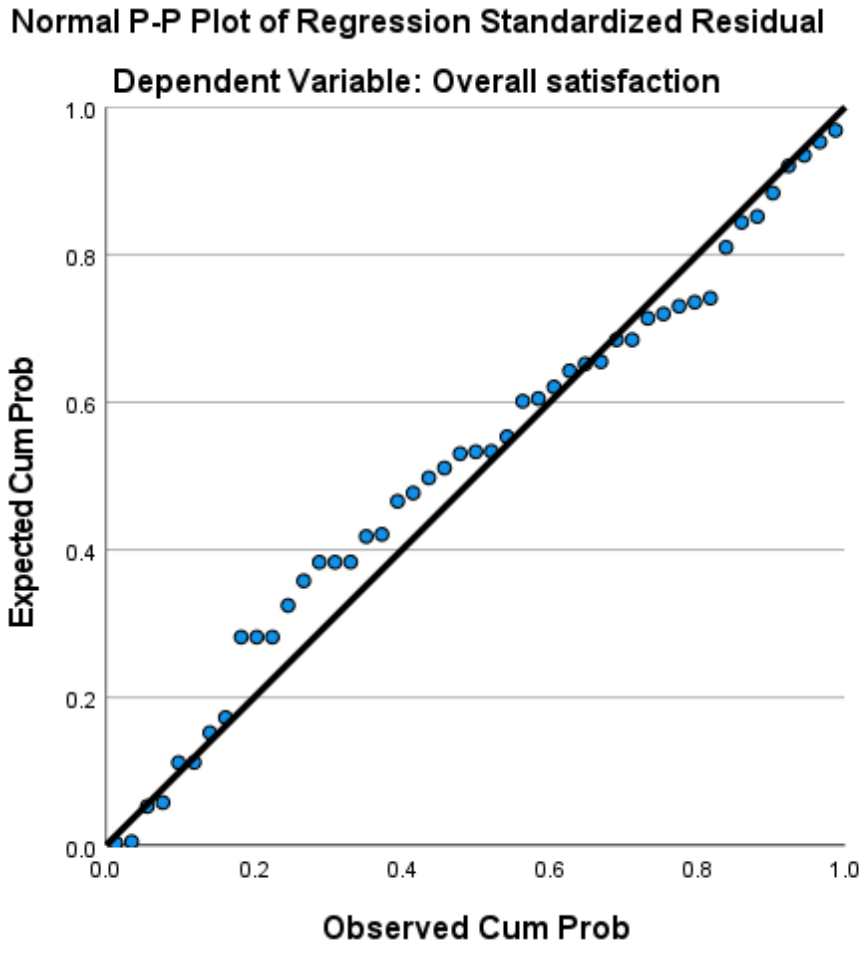
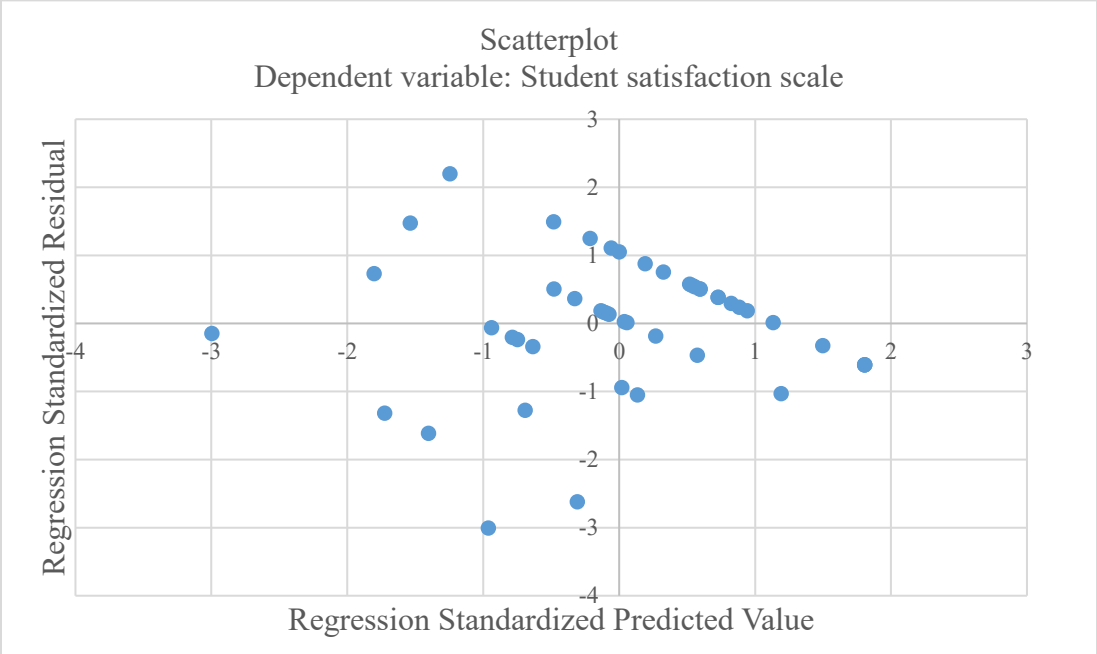


Figure 5.

Scatterplot of the Standardized Residuals



Inferential Results

I used standard multiple linear regression, $\propto = .05$ (two-tailed), to examine the efficacy of the perceived quality of learning experience and perceived quality of mentoring in predicting student satisfaction. The independent variables were the quality of the learning experience and mentoring. The dependent variable was student satisfaction. The null hypothesis was that the quality of learning experience and mentoring would not significantly predict student satisfaction. The model as a whole was able to significantly predict student satisfaction, $F(2,44) = 19.410$, $p < .001$, adj. $R^2 = .45$ (Table 6, Table 7). The adjusted R^2 value, .45 in Table 7 indicated that approximately 45% of variations in student satisfaction are accounted for by the linear combination of

the predictor variables. In the model, the quality of mentoring was statistically significant, β = .575, $p < 001$. The quality of learning experience was not significant, β = .191, $p = .131$ (Table 8).

Table 6

Analysis of Variance (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	39.753	2	19.876	19.410	<.001
Residual	45.056	44	1.024		
Total	84.809	46			

Table 7

Model Summary

Model	R	R Square	Adj R Square	Std Error of the Estimate
1	.685	.469	.445	1.012

Table 8

Coefficients

	Unstandardized Coefficients		Standardized Coefficient Beta (β)	T	Sig.
	β	Std. Error			
(Constant)	2.76	1.50		1.84	.072
Learning Experience	.28	.19	.191	1.54	.131
Mentoring	1.00	.22	.575	4.64	<.001

Learning Experience

The positive slope for quality of learning experience (.284) as a predictor of the student satisfaction indicated that student satisfaction would increase as the quality of

learning experience increases. However, student learning experience was not statistically significant, $\beta = .191$, $p = .131$

Mentoring

The positive slope for mentoring (1.001) as a predictor of student satisfaction indicated student satisfaction tends to increase as mentoring increases. The quality of mentoring was statistically significant, $\beta = .575$, $p < .001$

Analysis of Subdimensions

To examine if the quality of the learning experience has any subdimensions or subfactors, I conducted a principal component analysis. I used Eigen value >1 as criteria for principal component extraction (Figure 6). I removed several items due to poor psychometric properties that resulted in high levels of cross-loadings. The final round of the principal component analyses yielded three factors. Varimax rotation matrix converged in five iterations. The rotated matrix is shown in Table 9. The analysis showed three subfactors of learning experience. The first set of items appeared to represent enacted learning. The second set of items represent curriculum development and the third set of items represent student facilities.

Figure 6

Scree Plot of Factors for the Quality of the Learning Experience Variable

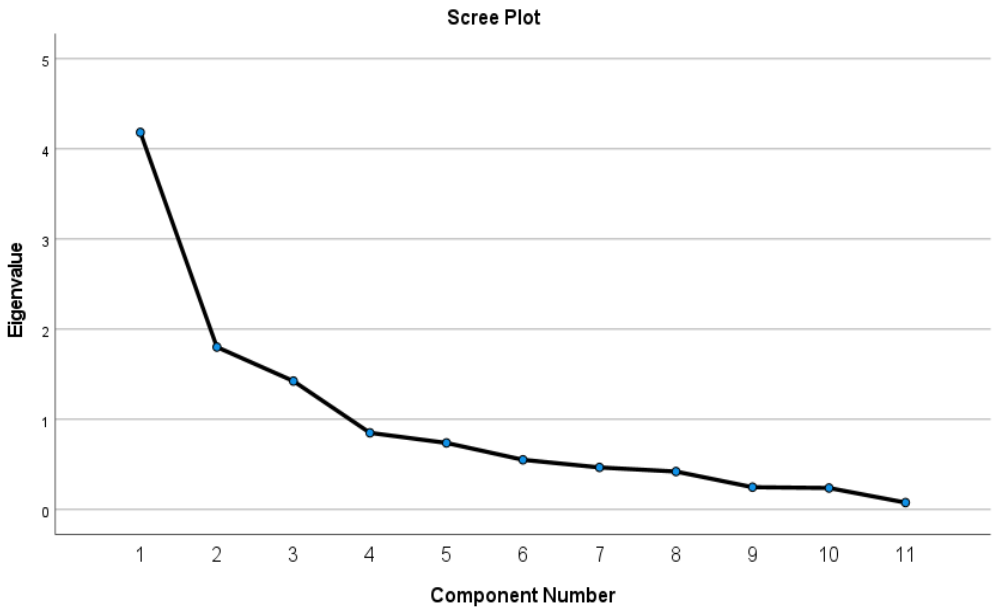


Table 9

Rotated Component Matrix for the Learning Experience Variable

	Components		
	1	2	3
X3 - Courses are valuable	.856		
X4 - Involvement of students in the learning process	.829		
X8 - The institution is well designed and properly maintained	.786		
X9 - The institution is a safe place to stay	.676		
X7 - Knowledge levels of lecturers	.576		
X1 - Courses are of well-structured design		.924	
X2 - Courses are real-world relevant		.878	
X5 - Focusing on students' thinking and learning style		.875	
X13 - The dining halls provide good service			.816
X14 - Student housing is comfortable			.811
X11 - Easy access to computer facilities			.536

To examine if the quality of mentoring has any subdimensions of subfactors, I conducted a principal component analysis. I used Eigen value >1 as criteria for principal component extraction (Figure 7). I removed several items due to poor psychometric properties that resulted in high levels of cross loadings. The final round of the principal component analyses yielded three factors. Varimax rotation matrix converged in five iterations. The rotated matrix is shown in Table 10. The analysis showed three subfactors of mentoring. The first set of items appeared to represent role model. The second set of items represented personal relations and the third set of items represented projection of mentee.

Figure 7

Scree Plot of the Factors for the Quality of Mentoring Variable

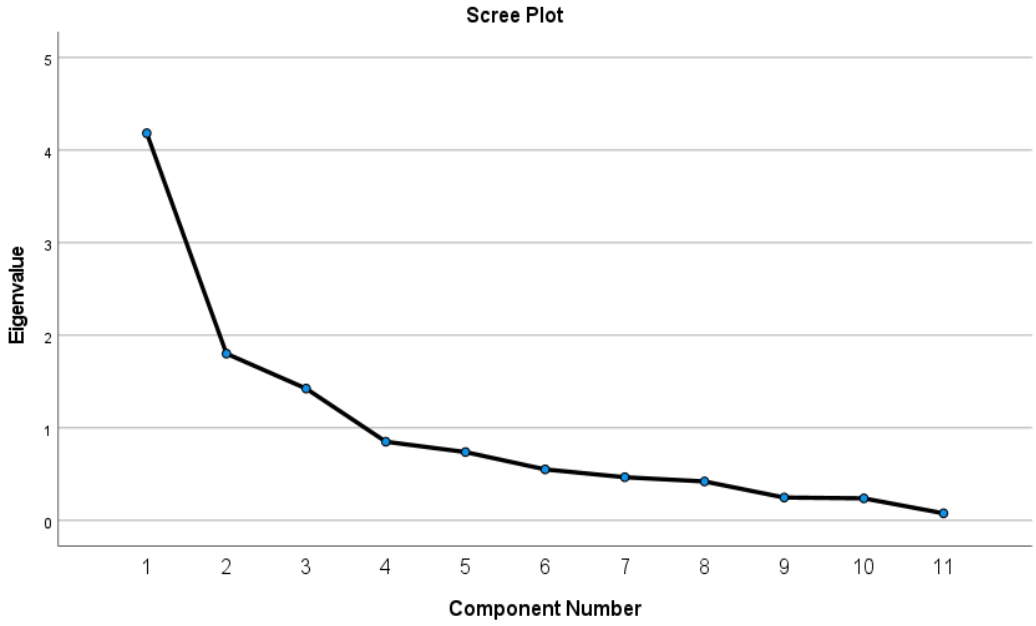


Table 10

Rotated Component Matrix for the Mentoring Variable

	Components		
	1	2	3
X23 - Served as a role model?	.870		
X19 - Share personal experiences as an alternative perspective to your problems?	.786		
X24 - Displayed attitudes and values similar to your own	.767		
X17 - Conveyed empathy for the concerns and feelings you have discussed with him/her?		.880	
X16 - Conveyed feeling of respect for you as an individual?		.749	
X20 - Discussed your questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers, and supervisors or work/family conflicts?		.726	
X27 - Given you authorship on publications?			.880
X29 - Helped you with a presentation (either within your department, or at a conference)?			.865

Analysis Summary

The purpose of this study was to examine the efficacy of the quality of learning experience and mentoring in predicting student satisfaction. I used the standard multiple linear regression to examine the ability of learning experience and mentoring to predict the value of student satisfaction. Assumptions surrounding multiple regression were assessed with no serious violations noted. The model as a whole was able to significantly predict student satisfaction, $F(2,44) = 19.410$, $p < .001$, adj. $R^2 = .45$. Both the quality of learning experience and mentoring provide useful predictive information about student satisfaction. The conclusion from this analysis is that the quality of learning experience and mentoring are significantly associated with student satisfaction.

Theoretical Conversation on Findings. My findings of the relationship between the perceived quality of learning, mentoring and student satisfaction confirm and extend knowledge of the framework and relationships between student satisfaction and its antecedents. This study might be the first empirical inquiry into the relationship between student satisfaction and its antecedents, singly or in combination, in an EEd institution or even HEI setting in a developing country environment. This study is a significant extension of the quantitative inquiries on student satisfaction and its antecedents in the EEd and HEI spaces in a developing country.

Churchill and Surprenant (1982) found that satisfaction with high involvement, high value, and infrequently purchased products and services like higher education was better explained by the DPS link which accounted for most (88%) of the variation in satisfaction. Rafik and Priyono (2018) further argued that the time lag in evaluating the real benefit of the higher education service and the absence of expectation before product purchase makes student satisfaction with higher education more dependent on direct performance (rather than student expectation or expectation disconfirmation) of the educational institution. The findings of this study that learning experience and mentoring have a significantly predictive and direct impact on student satisfaction are consistent with the DPS link model of the EDT of customer satisfaction and the findings of Churchill and Surprenant (1982) and Rafik and Priyono (2018).

The theoretical perspectives of mentoring from business, psychology, and education literature are the foundation for a theoretical framework specific to mentoring in the HEI setting (Crisp & Cruz, 2009; Norris et al., 2017). Kram (1983) established a

developmental relationship between the mentor and his protege in which the latter felt that the former had taken a personal interest in their development. The study findings on the direct impact of mentoring on student satisfaction confirmed Kalbfleisch (2002) observations that proteges record more satisfaction among other benefits from mentoring than those without mentoring relationships.

The finding that 30.6% of the variance in student satisfaction was uniquely accounted for by mentoring when the learning experience is controlled is a remarkable piece of discovery because academic and admin leaders of EEd institutions may not be aware of the dominant role of the perceived quality of mentoring on student satisfaction. The leaders of EEd institutions will be well advised to pay greater attention to providing quality mentoring support to their students in school and even after graduation. This discovery should provide the impetus for further research to uncover and better define the drivers of mentoring in student satisfaction.

The study findings confirm and extend knowledge of the theoretical framework and relationship between the quality of learning experience and student satisfaction. The extent to which students are satisfied with HEI services has an impact on the sustainability of the institution (Dlouha et al., 2017; Duzˇevic et al., 2018; Hoh et al., 2018; Luna-Krauletz et al., 2021; Paul & Pradhan, 2019; Santini et al., 2017). An understanding of the antecedents of student satisfaction may help direct faculty and admin actions in HEIs. The study findings uncovered the underlying factors for the learning experience construct in a developing country context as (1) enacted learning, (2) curriculum design, and (3) adequate facilities.

Lackéus and Middleton (2018) affirm that EEd relies significantly on experiential or enacted learning and that assessment needs to shift from academic achievements to also taking practice-based experiences into account. My study findings correlate with enacted learning being a valuable element of learning experiences that drives student satisfaction and would encourage EEd institution leadership to seek better assessment methods. My study findings also support the importance and value of curriculum design and good facilities to student satisfaction as argued by Agbonlahor, (2018) and Madrid et al., (2019) respectively.

Using a decomposed alumni satisfaction model, Hsu et al., (2015) determined the satisfaction score was 73.8 (transformed to a 0–100-point scale to facilitate comparisons). My study may not be directly comparable to Hsu et al., because the questionnaire for my study was based only on perceived quality (not perceived value) and student satisfaction and unlike Hsu et al., which included questions on mentoring, my findings on the statistically significant impact of the quality of learning experience on student satisfaction is not inconsistent with Hsu et al., findings on the relationship of perceived quality on student satisfaction. The perceived quality in Hsu et al., comprising of course design, teaching staff, and campus environment are the same as the quality of learning experience in my study.

Application to Professional Practice

The study showed that the quality of learning experience and mentoring statistically and significantly impacted and predicted the satisfaction of students of EEd institutions. The benefits of the satisfaction of the student-as-customer to customer

loyalty, firm growth, profitability, and competitive advantage are well documented. The study findings reveal the levers for driving the performance of a firm as quality of student learning experience which comprises of (1) enacted or experiential learning, (2) curriculum design, and (3) adequate facilities; as well as mentoring which comprises of: (1) role modeling, (2) inter-personal relations, and (3) projection of mentee. A program for improvement can be built around these performance dimensions and managed at the strategic and operational levels over time. The academic and administrative leaders of EEd institutions, including in developing countries like Nigeria, however, need to pay more attention to mentoring (relatively low mean scores and accounting for most of the variance in student satisfaction) as integrated with the quality of learning experiences of their students to strike a win-win outcome – financial independence and even wealth for their alumni and enhanced relevance and institutional reputation for contributing to national economic development.

Implication for Social Change

The study findings confirm the impact and statistically significant predictive power of quality of learning experience and mentoring on student satisfaction as extended into the EEd institution space. The more satisfied students of EEd are, the more their needs and expectations for starting and successfully running a business of their own on graduation will be fulfilled. There are many implications of successful entrepreneurship for social change at the levels of individuals, communities, organizations, institutions, cultures, and society as a whole.

Entrepreneurship is a life-long learning experience. Individuals learn and get to practice life skills such as problem-solving, innovative thinking, and teamwork. These skills result in personal growth and development in the long term. Specifically, entrepreneurs show a tenacity of purpose that hones and focuses their creativity thereby generating innovative ideas in business planning and execution phases to deal with particularly problematic circumstances. By learning to collaborate with others and working with a team spirit, entrepreneurs build their character and result-oriented performance, and personal productivity. The financial independence that comes with individual success in entrepreneurship does extend to family members who may be involved in the enterprise. Entrepreneurship benefits to the individual may therefore be financial or non-financial at both the business and personal levels.

Organizations have a great need for entrepreneurial thinking and a mode of working. In a rapidly changing business environment, the organization should be increasingly adaptive, being first to spot new opportunities and challenges arising from changing market conditions and its uncertainties and having the orientation and leadership skills to set new directions and standards and manage change. These behaviors result in competitive advantage, innovation, and increased productivity, which requires and calls for a new mindset by workers – going beyond being a diligent employee for today to assuming responsibility for creating a bigger and better future for the enterprise. The benefit of entrepreneurship at the organizational level is the bedrock of wealth creation and economic development for the individual and the nation.

Entrepreneurship is ultimately about overcoming risk to channel resources to opportunities to achieve set objectives. Institutions such as organizations founded for a religious, educational, professional, or social purpose tend to be not-for-profit and demand leadership that strives for persistence and continuity. A growing number of entrepreneurs are driven by social consciousness and the delivery of social goods is a substitute for a bottom line. The social entrepreneur bridges sustainability with creative ways of generating sponsorship support. The value and contribution of social entrepreneurship, particularly in developing countries, are most pronounced in the educational and religious sectors and driven by industry leaders with a tenacity of a purpose beyond profits. This has given rise to a new concept of the entrepreneurial university with performance measures for delivery of quality graduates within cost and a pipeline of research and community engagements that ensure sustainability.

The dominant ideas, customs, and social behavior of a particular people living in a more or less ordered community may constrain or facilitate entrepreneurial intentions and success. The entrepreneurial mindset encourages risk-taking and may be embedded in the recognition and reward systems prevalent in a culture or society. The risk-taking ability and encouragement that certain cultures and societies project and the success of the resulting entrepreneurial activity are both enabling and reinforcing. The ultimate benefit of entrepreneurship at the cultural and societal level is to expand the risk-taking capacity of a particular people to overcome the numerous challenges facing mankind – a significant competitive edge in an increasingly resource-constrained world. Entrepreneurship also benefits the community and society by encouraging personal

growth and skills relevant to various roles in society and even parenting. The benefit of entrepreneurship to competition, economic growth, job creation, new industries, markets and sources of wealth, to tax revenues to governments is better known and established than the partnership and vendor relationships that result from community-enhancing business and industry linkages. These linkages strengthen the socio-economic fabric of the whole society. Some entrepreneurs come from financially insecure upbringings and are keen to redistribute their newfound wealth to charities contributing heavily to philanthropy in the community and society as a whole.

Recommendations for Action

The study findings confirm the impact and statistically significant predictive power of the quality of learning experience and mentoring on student satisfaction in EEd institutions in Nigeria. The benefit of customer satisfaction to enterprise growth and profitability is well known and may be extended to the impact of student satisfaction on the sustainability and reputation of EEd institutions. The factors that drive the quality of learning experience and mentoring have been uncovered in this study and provide a framework for designing a performance management system and managing a performance improvement program by EEd institutions. The specific areas of interest are quality of learning experience which comprises of: (1) enacted or experiential learning, (2) curriculum design, and (3) adequate facilities; as well as mentoring which comprises of (1) role modeling, (2) inter-personal relations, and (3) projection of mentee. The academic and admin leaders of EEd institutions need to work closely to integrate the

system design and program executions for learning experiences and mentoring for effective and efficient delivery of EEd.

The results of this study might be disseminated in summary form to participants and leaders of the two partner EEd institutions and the full study report will be published in the open-access journal, ProQuest. This DBA completed study will be converted into a journal article to be co-published with my Chairman, Dr. Chung.

Recommendations for Further Research

This study is based on an assumption that students who have covered 50% of their EEd program would be able to make an informed assessment of the quality of their learning experiences, mentoring, and satisfaction. There is an argument that student satisfaction and its antecedents would be more appropriately measured post-graduation when they might more accurately judge the extent to which the EEd program fulfilled their needs and expectations for a business startup and successful running. There is further satisfaction research recommended for alumni of EEd institutions. This will represent an extension of Hsu et al., (2015) into the EEd space.

This study was deliberately quantitative trading off the depth and underlying detail of participants' responses for a statistical evaluation of the relationship between student satisfaction and its antecedents. Some of this underlying detail was uncovered in the factor analysis for the independent variables but more quantitative studies with a rationalized questionnaire and more qualitative studies with rich responses are recommended as they would further the knowledge and understanding of the satisfaction motivations of students and alumni of EEd institutions.

The study was delimited to EEd in an institutional setting ignoring the more pervasive apprenticeship and lifelong learning going on in the community. The famous apprenticeship practice among the Igbo traders of Nigeria offers new directions for further study. The use of internships for young and aspiring entrepreneurs is recommended for further research.

My original desire to examine the relationship between quality of learning experience, mentoring, funding availability, and student satisfaction was based on my real-world knowledge of the EEd institution environment and student needs and expectations. I was well advised that because of the lack of empirical studies on the relationship between funding availability and student satisfaction, there is no model available and I might not have the knowledge, time, and money required for developing a model and completing the study and DBA program. The study of the relationship between student satisfaction and all its critical antecedents inclusive of funding availability is recommended.

Reflections

I had an initial shock from the DBA Doctoral Study process. I had never failed an exam in my academic life which goes back to an MBA in 1978. The learning curve (more of behavior than academic) was simply too steep for me. I failed my first course in this DBA program and wanted to withdraw. After a call from Walden Student Advising and a sit-down “you can do it” counseling session with my wife, I cured myself of bad scholar behaviors like not familiarizing myself with course requirements and watching television while reading and doing assignments. I had no onboarding and the Walden portal was

intimidating for a then 65-year-old digital migrant. The failure was a wake-up call. I have since completed my course work with a cumulative GPA of 3.63.

I struggled with scholarly writing and statistics. There were no such things in my MBA days and my natural default was to business writing and financials. I arrived at the DBA program with some arrogance from years of solid experience in a marketing and management career and being a relatively successful serial entrepreneur. I am now considerably more tempered by the truth that the more one knows the more humbled or less presumptuous he is about the unknown. I am now better prepared to lead the efforts for improvements in EEd in Nigeria. The Center Director for one of the two partner organizations for this study was so impressed and interested in the Walden DBA Program and my study topic, he got me to participate in and lead a Nigerian Universities Commission team to develop an improved curriculum for EEd for all tertiary institutions in Nigeria. The two partner organizations look forward to my joining their faculty for entrepreneurship studies as soon as possible.

Conclusion

Leaders of EEd institutions in Nigeria and the developing world will unleash the job creation and socio-economic potential of their youthful populations and nations by identifying their students and alumni as the primary customers whose satisfaction is the reason for being in their institutions. There are many peripheral benefits with education in entrepreneurship for the community and society as a whole but the relevance and value of EEd will be education *for* entrepreneurship. Developing countries have limited resources which should be prioritized in favor of education for entrepreneurship leading to the

successful launch and build of own enterprises. Preparing students to startup and run their businesses is more resource intensive and require closer detailed attention to student and alumni needs over time. The students and alumni of EEd institutions are best placed to determine the specifics of their needs and expectation during their student days and post-graduation and leaders of EEd institutions must do their best to anticipate and continuously improve on the fulfillment of those changing needs and expectations.

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Appendix A: Survey Instrument

Student Satisfaction Survey Questions

Responses are kept confidential. Your responses are extremely important. Please answer objectively based on your experiences and your expectation of your educational institution.

Quality of Student Learning Experience

Rate the following items from 1 to 10, 1 being strongly disagree, and 10 being strongly agree

Course Design

1. Courses are of well-structured design
2. Courses are real-world relevant
3. Courses are valuable

Teaching Staff

4. Involvement of students in the learning process
5. Focusing on students' thinking and learning style
6. Lecturers' teaching performance
7. Knowledge levels of lecturers

Campus Environment

8. The institution is well designed and properly maintained
9. The institution is a safe place to stay
10. Teaching facilities in classrooms are good

11. Easy access to computer facilities
12. Sporting facilities are adequate
13. The dining halls provide good service
14. Student housing is comfortable

Quality of Mentoring

Mentoring is the support and encouragement that you receive to manage your own learning in order to maximize your potential, develop your skill, improve on your performance, and become the person you want to be. The support and encouragement might be formal or informal, centralized or decentralized, in a group or by your tutor or peers.

Rate the following as not at all = 1; to a small extent = 2; to some extent = 3; to a large extent = 4; and to a very large extent = 5.

15. Gone out of his/her way to promote your academic interests?
16. Conveyed feeling of respect for you as an individual?
17. Conveyed empathy for the concerns and feelings you have discussed with him/her?
18. Encouraged you to talk openly about anxiety and fears that detract from your work?
19. Share personal experiences as an alternative perspective to your problems?
20. Discussed your questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers, and supervisors or work/family conflicts?

21. Shared history of his/her career with you?
22. Encouraged you to prepare for the next steps?
23. Served as a role model?
24. Displayed attitudes and values similar to your own?
25. Helped you finish assignments/tasks or meet deadlines that otherwise will have been difficult to complete?
26. Protected you from working with other faculty, lecturers, or staff before you knew about their likes/dislikes, opinions on controversial topics, and the nature of the political environment?
27. Given you authorship on publications?
28. Helped you improve your writing skills?
29. Helped you with a presentation (either withing your department, or at a conference)?
30. Explored career options with you?
31. Given you challenging assignments that present opportunities to learn new skills?
32. Helped you meet other people in your field at the University/Institution?
33. Helped you meet other people in your field elsewhere?

Overall Student Satisfaction

Rate your overall satisfaction from 1 to 10, 1 being not satisfied at all, and 10 being very satisfied

34. Overall satisfaction

Demographics

Please fill in or click on the answer that corresponds to you.

35. Age

    a. 18 – 25 years
    b. 26 – 35 years
    c. 36 – 45 years
    d. 46 – 55 years
    e. 56 years and above

36. Gender

    a. Male
    b. Female

37. Employment Status

    a. Unemployed
    b. Part-time employee
    c. Full time employee
    d. Self employed

38. Type of Study at Institution

    a. Part-time
    b. Full-time

Thank you.