

Academic Burnout and Classroom Assessment Environment: The Case of University's Accounting Students in Kwara State, Nigeria

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Abstract

This study was set out to identify strategies to be adopted in achieving reduced feelings of academic burnout by university's accounting students via perceived classroom assessment environment. Being a causal-comparative study, the dependent variable-student burnout and the independent variable-classroom assessment environment were measured using Maslach Burnout Inventory-Student Survey (MBI-SS) and Classroom Assessment Environment Scale (CAES) respectively. A sample of 202 accounting students in Al-Hikmah University out of four universities with full-fledged accounting course in Kwara State was surveyed. Cluster analysis, used to identify the homogeneous groups of classroom assessment environment's perceptions, resulted in the emergence of three clusters of a mix of learning-based and performance-based dimensions of classroom assessment environment. Kruskal-Wallis test was conducted upon the failure of normality and homogeneity of variance assumptions. The findings showed that accounting undergraduates differ significantly in their feelings of academic burnout with regard to the clusters of their perceptions of classroom assessment environment. Specifically, it was evident that increased perceived performance-based classroom assessment environment leads to the increased level of academic burnout while the increased learning-based classroom assessment environment reduces it. Therefore, accounting educators should teach to institutionalize classroom assessment environment that is learning-oriented and influence positively three domains of educational objectives.

Keywords: Academic Burnout, Accounting Student, Learning-Based Classroom Assessment Environment, Nigeria, Performance-Based Classroom Assessment Environment, University

1. Introduction

Assessment is an integral part of school curriculum regardless of level of education. Students are subject to a variety of assessment activities on a daily basis in their academic pursuit^[2]. Apart from being a dependable bridge between teaching and learning, classroom assessment also promotes the attainment of data meant for developing learning via making adjustments in the instructional practice of both teachers and learners^[10]. Classroom assessment places emphasis on the fact that class-

room remains a unique learning environment expected to influence students/pupils' learning potentials. While the assessment involves systematic gathering of requisite information about students' learning as an aid to teaching-learning process, the environment in which it takes place must also be prioritized. Classroom assessment environment (CAE), therefore, is a classroom situation passed through by students as the teacher sets up assessment purposes, gives assessment assignments, prepares performance yardsticks and standards, gives feedback, and monitors results^[15].

The attention in the recent time has shifted to evaluating the students' perceptions of various assessment practices that are used by the teachers in the classroom situations^[5].

Students, in this part of the world, face myriad of challenges while struggling to have tertiary education. Contemporary students struggle to secure tertiary educational institution admission, perform while in the school and become gainfully employed upon completion of their education^[29]. Some of these challenges can bring about what is called "burnout". Burnout is a term developed and created to provide a nomenclature for the syndrome of long-range exhaustion and deteriorated interest^[108]. It is a psychological construct which became known in the scientific literature in the 1970s. Specifically, it was first used to describe responses to the stress exhibited by free clinics and halfway houses staff^[41]. Failing, wearing out and becoming exhausted are distinguishing features of burnout especially if they were made on energy, strength and wherewithal of individuals^[42]. It is indeed a product of mismatch between the requirements of the job and the peculiarity of the person who does the job^[85].

Although burnout is seen as a feature of job-related activities like the role of teachers, medical practitioners, lawyers, security agents, secretaries and psychologists; empirical evidence has shown that burnout also surfaces in students^[48, 49, 104, 100]. Thus burnout as occurred to the students is labelled the school-related, student or academic burnout^[114, 116, 92]. In the literature, school-related burnout has a link with both personal and contextual factors^[49]. With contextual factors which are majorly exhibited in the classroom being determinants of academic burnout, it could be asserted that classroom environment and all its divisions have impact on the school-related burnout^[49]. By this, research into the academic burnout from the point of view of its linkage to classroom assessment environment (CAE) has the potential of establishing means of reducing burnout engendered by all the components of classroom environment. Given the rigour of becoming accountants, undergraduate accounting students in a university are surveyed to understand their burnout from their perceptions of the classroom assessment environment (CAE).

2. Problem Statement

Since the term "burnout" has its root from clinical perspectives and popularized by psychologists^[88], previous studies in this regard are influenced by experts in both fields. In particular, studies on student or academic burnout including recent ones are common in medic and paramedic fields^[48, 9, 101, 108, 47, 104, 100] and in psychology, education and sports^[84, 29, 37, 103, 34, 82, 115, 87, 85, 55]. Only few empirical studies on school-related burnout are found in the management sciences^[78, 111, 63].

The rationale adduced for the avalanche of school-related burnout studies on medical and paramedical students is that medical-related education is highly demanding^[9, 101]. Conversely, accounting, being a professional course and most preferred choice of students in the management sciences, also requires enormous task before its completion. Thus, incidence of burnout is equally probable for student accountants. Also, studies providing a link between student burnout and CAE are fewer and in Nigerian context are seldom available. Based on these grounds, the extent of association between academic burnout and CAE was examined in order to minimize the effect of all the components of classroom environment among accounting undergraduates. By implication, this study contributes not only to the advancement of burnout and CAE literature but also the behavioural aspect of accounting.

3. Purpose of the Study

The overall aim of this study is to investigate the extent of association between the school-related burnout and classroom assessment environment (CAE). This is to ensure that assessment environment favourable to the decreased students' experience of academic burnout among undergraduate accounting students in the universities in Kwara State, Nigeria, is established. Evidence from the literature shows that CAE measurement scale can be divided into "learning-based CAE" (LCAE) and "performance-based CAE" (PCAЕ) based on factor loadings^[2, 50] while academic burnout results in the students' display of academic exhaustion,

tendency to desensitization and low personal accomplishments^[97, 114]. Based on the components of CAE and academic burnout, the following are the specific objectives of this study:

- To establish the extent of relationship between accounting students' emotional exhaustion and their perceptions of LCAE and PCAE;
- To examine the extent of association between accounting students' tendency to desensitization and their perceptions of LCAE and PCAE; and
- To investigate the degree of relationship between accounting students' personal accomplishments and their perceptions of LCAE and PCAE.

4. Literature Review

This section dwells on some concepts, theories and past empirical findings related to the purpose of the study.

4.1 Conceptual Issues

Here, those issues related to burnout and classroom assessment environment (CAE) are reviewed using the search light of previous relevant studies.

4.1.1 A Snapshot of Burnout and Academic Burnout

A horrific condition typified by a state of substantial diminution of individual energy, associated with an intense frustration with work activities^[73] represents a burnout syndrome. The origins of the usage of the term "burnout" appear to come from the illegal drug scenario, where "burnout" is considered the physical effects of uncontrolled drug abuse^[72]. The term burnout was reported in 1974 by a clinical psychologist called Herbert Freudenberger and made an academic subject of discourse by a social psychologist-Christina Maslach who stumbled on the term "burnout" while carrying out an exploratory research using personnel in healthcare and human service occupations^[72]. Burnout is a dysfunction that both individuals and organizations would not be contented with^[72]. It is also important to note that

burnout is socio psychological construct which is indeed different from clinical depression^[83]. Depression is noticeable when the personal history of the individual concerned is considered to be the origin of the symptoms and the basis of the therapy^[29] but it could be one of the outcomes of burnout^[29, 53].

The three major symptoms of burnout are emotional exhaustion, depersonalization and reduced personal accomplishments^[66]. It can also be in form of a continuum of individuals' psychological relationships between the negative occurrence of burnout and positive experience of engagement which brings about three interdependent dimensions^[61, 67, 66]. provided that a person has emotional exhaustion when overextended and tired by his/her contact with other people, is depersonalized when indifferent towards these people who are usually the recipients of his/her service, and has reduced personal accomplishment when confronted with a decline in feelings of competence and successful achievement in his/her work with others.

Burnout among students refers to feeling exhausted because of demands of their study, having cynical and detached feelings towards study, and feeling incompetent coupled with loss of hope as a student^[97]. When students display a situation of emotional exhaustion, likelihood to depersonalization, and a feeling of reduced personal accomplishment in the process of learning owing to course load, course stress or other emotional factors burnout sets in^[114]. In organization setting, burnout can result in employee lower dedication, higher turnover rate, absenteeism, diminishing efficiency, low spirit, and reduced human tendencies^[68, 30] while its student version cause in students, higher absenteeism, discouragement from prosecuting coursework, increased dropout proportion and self-withdrawal among others^[74]. A student with burnout syndrome is likely to have impeded optimal rational and physical functioning^[100]. The extension of the scope of this all-important psychological concept beyond health care and human service organizations has made student burnout an emblem of research having disconnected all its major components from working with others^[97].

Based on the origin of burnout, being a student cannot be considered a job^[95] but students' core activities including attending classes, doing class assignments and writing continuous assessment tests and examinations may be likened to "work"^[24]. Therefore, students have the tendency of feeling exhausted and developing a spirit of withdrawal from their studies as a consequence^[95]. Also, research on student burnout has potentials to increase the understanding of students' diverse behaviour, influence students' future relationship with their college and reduce the incidence of student burnout that may affect the standing of the institution^[77] based on your procedure.

4.1.2 Measuring Burnout Syndrome

Since 1970s when the concept of burnout has been introduced to academics, researchers and practitioners have been making tremendous efforts to broaden its application to all human endeavours^[96]. In the literature, researchers make use of an instrument called "burnout inventory" to establish burnout tendencies in individuals across board. The foremost and commonly used instrument or scale to identify burnout syndrome empirically is called "Maslach Burnout Inventory"- MBI^[49]. The journey towards designing measurement scale to identify burnout syndrome started with Maslach Burnout Inventory-Human Services Survey: MBI-HSS^[64] designed for field observations of employees in a wide variety of human services jobs including medical and mental health, social services, criminal justice and education^[69, 70, 68, 65, 66]. There are 22 items in the maiden burnout scale with 9, 5 and 8 items in the emotional exhaustion, depersonalization and professional accomplishments subscales respectively^[64]. These items which are written in the form of statements about personal feelings are answered in terms of the frequency with which the respondents experience the feelings on a 7-point scale ranging from '0-6', that is, "never to everyday"^[64].

Having realized that MBI-HSS can only be used by professional personnel who relate with others in their places of work and it includes items that are defined in terms of interactions with recipients, MBI-General Survey-MBI-GS

was devised^[97]. This has made it possible to study burnout in non-occupational groups because its dimensions are defined more generally leaving out wordings indicating working with recipients as obtained in MBI-HSS^[97]. This singular breakthrough of MBI-GS culminated in the development of several modifications of the scale including MBI-Educator Survey: MBI-ES for workers in educational professions and MBI-Student Survey-MBI-SS for undergraduates and graduate students^[71, 97, 78]. MBI-SS is modeled to replicate MBI-GS but with fewer items. MBI-SS contains 15 items of 5, 4 and 6 items of emotional exhaustion, cynicism/depersonalization and personal efficacy subscales respectively^[97]. There are a number of alternative burnout instruments in the literature including Copenhagen Burnout Inventory - CBI^[56], Oldenburg Burnout Inventory - OLBI^[31, 32] and Shirom-Melamed Burnout Measure - SMBM^[106]. While the CBI consists of 19 questions divided into a three-factor structure of "personal burnout", "job-related burnout" and "client-oriented burnout"^[21], OLBI comprises 16 positively and negatively worded items structured into physical, affective and cognitive exhaustion and disengagement without featuring personal accomplishments^[32, 87].

The designing of the alternative burnout scales was borne out of having various versions of MBI and for other theoretical and procedural issues^[21, 87]. Against all critiques, thousands of studies have used MBI to assess burnout compare with other instruments^[36], thus regarding MBI as "gold standard" does not amount to overstatement^[96]. Subsequent to the designing and use of MBI-SS by^[97], empirical evidence shows that avalanche of studies continues to assess burnout using MBI-SS and confirms its validity and reliability in different climes^[24, 59, 78, 11, 103, 111, 34, 63, 82, 115, 47, 55]. Based on this rationale, this study also adopted MBI-SS for its survey of accounting students' burnout.

4.1.3 Classroom Assessment Environment (CAE)

Divorcing assessment from education process is retrogressing as assessment is vital in all respects

to educational advancement^[25]. It is a general norm in education to determine whether students attain the objectives of their course of study or curriculum scope and sequence^[52]. Therefore, assessment is a process that includes four basic components: “measuring improvement over time; motivating students to learn; evaluating the teaching techniques/methods and rating the students’ capabilities in relation to the whole group evaluation”^[52].

Classroom and other learning environments are described as the means by which certain kinds of instructional requirements, situational impediments, or psychosocial peculiarities relate to various cognitive and affective outcomes in students^[8]. Since burnout relates to cognitive and affective domains of individuals, it can be deduced from^[8] conceptualization of classroom environment that academic burnout can be a function of classroom assessment environment. Classroom environment could be positive or negative^[18]. While the positive classroom climate guarantees in students greater confidence, perceived cognitive capability, internal locus of control, mastery enthusiasm, satisfaction with the school, academic success, and less acting-out behavior^[109, 89, 10], negative classroom climate brings about students’ poor peer relations and academic upheaval as well as increased level of aggression which are typical of student burnout^[64, 54]. Classroom environment as a construct is multifaceted and this makes its influence on teaching-learning outcomes diverse^[51]. Classroom environment may be construed in form of classroom rule, extent of teacher’s fairness to students, classroom communication environment, techniques and methods adopted in the learning process^[39, 33, 58] and most importantly classroom assessment environment^[12].

Classroom assessment environment encapsulates the overall essence students attached to various classroom assessment events in the course of their studies^[17]. This three-word concept or construct was brought into limelight in the work of^[105] consequent upon their observations of the assessment practices of four teachers in three sixth grade classrooms. Based on^[15] model, classroom assessment environment is summarily an

overall experience of students as the teacher ascertains assessment objectives, assigns assessment tasks, sets performance standards and criteria, gives feedback and monitors results. Two basic dimensions of classroom assessment environment identified in the literature based on students’ perceptions are learning-based classroom assessment environment-LCAE and performance-based classroom assessment environment-PCAE^[2, 3, 6, 50]. While the LCAE is typical of assessment practices that better students’ learning and master of subject items^[6], the PCAE is typical of assessment practices that pose some difficulties or challenges for students to resolve and place emphasis on grades obtained rather learning outcome^[6]. Given this description of LCAE and PCAE, their measurement scales are positively and negatively worded respectively to elicit responses from students^[2, 50]. Since the validity and reliability of dimensions of classroom assessment environment scale are evident in the past empirical studies^[2, 3, 6, 49, 50, 19, 20, 27, 51], this study adopted the scale for the survey of accounting undergraduates’ perceptions of CAE.

4.2 Theoretical Underpinning

Burnout and stress related studies are explained with a number of theories including conservation of resources (COR), social cognitive and person-environment (PE) fit theories^[44, 46, 114, 90]. For the purpose of this study conservation of resources (COR) theory and person-environment (PE) fit theory are critically examined and linked to the variables of the study.

4.2.1 Conservation of Resources (COR) Theory

COR cannot be properly understood without the knowledge of what resources are all about from the viewpoint of burnout. “Resources are objects, personal characteristics, conditions or energies that are valued by individuals”^[44]. It is a general consensus that resources are central determining factors of adaptation, performance, and change^[7]. Resource theories, including COR theory, are interdisciplinary as their application in various fields of endeavour including sociol-

ogy, psychology and economics is evident in the literature^[38, 79, 86, 40, 28, 81]. COR theory has its origin from resource-related and psychosocial theories of stress and human motivation based on the works of^[44, 45]. COR theory is a conglomerate of various stress theories and proposes that individuals seek the acquisition and maintenance of resources^[43]. While individuals strive to procure and maintain what they value which are resources, stress can ensue when circumstances at work or elsewhere (like students' classroom climate) threaten their ability to do so^[114]. The potential and actual loss of these resources which are objects, conditions, personal characteristics and energies leads to a negative state of mind which includes depression, dissatisfaction, anxiety and physiological tension^[43]. Thus, most of the components of the negative state of being belong to one or more of various dimensions of burnout.

Using^[44] stress model, a working link can be established between CAE and various dimensions of school-related burnout. An excerpt from the words of^[44] demonstrating this relationship goes:

"Environmental circumstances often threaten or cause a depletion of people's resources. They may threaten people's status, position, economic stability, loved ones, basic beliefs or self-esteem"(p. 516-517).

Based on the purpose of this study, classroom assessment environment is likened to environmental circumstances while the students' feeling of emotional exhaustion, depersonalization and reduced personal efficacy are considered signs of depletion of students' resources. Therefore, the application of COR theory to the linkage between CAE and academic burnout presents COR theory as an extension of frontier of previous related theories given its acknowledgement that stress emanates from the collective effect of the perception of a situation as strenuous and in excess of available resources^[94, 60]. Since classroom environment is said to be either positive or negative^[18], unfavourable CAE whether LCAE or PCAE has the capacity to make academic activities strenuous for students or results in the loss of resources meant for propelling their studies. This is as demonstrated by^[49] for CAE and academic burnout and^[51] for CAE and mathematics anxiety in the Turkish context.

4.2.2 Person-Environment (P-E) Fit Theory

P-E fit theory is a guide towards understanding how a man and his environment relate to produce stress and control strain^[35]. It can also be described as a framework for comprehending the process of adaptation between organizational members and their work setting^[22]. The P-E fit theory leverages on the interactionist theory of behaviour^[75, 26]. The idea of interactionist theory was brought to limelight through the Lewin's (1938) proposition that the behaviour is a function of the person and his environment^[99, 76]. Thus what accounts for variance in behaviour is the interaction between personal and situational variables^[76].

P-E fit has various dimensions with person-job (P-J) fit, person-organisation (P-O) fit and person-group (P-G) fit appear most relevant distinctions to the management^[76]. Other forms of P-E fit include person-vocation (P-V) fit, person-individual (P-I) fit and person-supervisor (P-S) fit^[99, 106]. Using the premise of P-E fit theory that stress emanates from the fit or congruence of man with his environment^[35], it can be deduced that the nature of students fit with the classroom assessment environment can lead to student burnout. Student-teacher fit can be likened to P-S fit since teacher performs supervisory role and coordinate the activities in the class. The nature of learning-oriented and performance-oriented activities that take place in the class determines the classroom assessment environment. By conceptualizing P-E fit as a resource in the context of COR, fit could exist as any four categories of resources^[113]. Thus, person-environment approaches suggest that optimal productivity is a function of individuals' compatibility with their environment^[90]. Based on the objective of this study, the students' optimal productivity is identifiable when CAE does not lead to the students' feelings of emotional exhaustion, desensitization and reduced personal accomplishment. Although this theory is often applied in the organization setting^[99, 113, 106], its application has been empirically demonstrated for psychological susceptibilities and perceptions of the social-emotional setting by the middle-school students^[57].

Using the deductions from these two theories and the study's conceptual framework, a conceptual model presented in Figure 1 is developed linking the students' feelings of burnout with their perceptions of classroom assessment environment (CAE).

4.3 Past Empirical Studies

Using the works of^[8, 105, 15], it is sufficient to conclude that classroom assessment environment (CAE) has a longstanding presence in the literature. Studies on CAE have been linked with a number of issues that have direct bearing on students including mastery goal orientation, self-efficacy, achievement orientation, mathematics anxiety, classroom assessment communication, assessment tasks and learning strategies^[1, 2, 4, 19, 5, 27, 51]. No studies other than that of^[49] were found in the literature that related the CAE to student burnout. Given the fact that self-efficacy, anxiety and goal orientation are related to some of dimensions of student burnout and that classroom assessment communication, assessment tasks and learning strategies are linked to CAE, it is considered expedient to review studies with these variables.

^[1] who conducted a survey of public high schools in Oman using hierarchical modeling techniques found that classroom assessment practices interact significantly with students' characteristics in influencing students' achievement goals. Using 242 undergraduates that enrolled in Educational Psychology course at the College of

Education at Sultan Qaboos University in Oman,^[2] found that Perceived learning-based and performance-based assessment environments were inversely related to each other, and that each was significantly associated with mastery goals and self-efficacy. While the perceived LCAE was found to have significantly positive direct impact on both self-efficacy and mastery goal, the perceived PCAE had significantly negative influence on self-efficacy. This shows that the classroom assessment environments (CAEs) with a powerful emphasis on understanding and learning have the capacity to promote high levels of self-efficacy and mastery goals while CAEs characterized by tough grading and public assessment practices are likely to discourage high sense of academic efficacy. Based on data collected from 198 Omani 10th grade students,^[4] study revealed that high levels of accuracy and openness in assessment had positive relationship with students' self-efficacy and task value. It has also been empirically demonstrated by^[5] through a correlation study that perceived LCAE has significant positive relationship with academic achievement while the perceived PCAE is significantly negatively related to academic achievement as obtained from the survey of 4088 students of the second cycle of basic education grades conducted for all governorates in the Sultanate of Oman.

With survey of 369 students of 7th and 8th grades of State elementary schools in the central district of Sivas Province in Turkey,^[19] found a moderate, positive and significant relationship

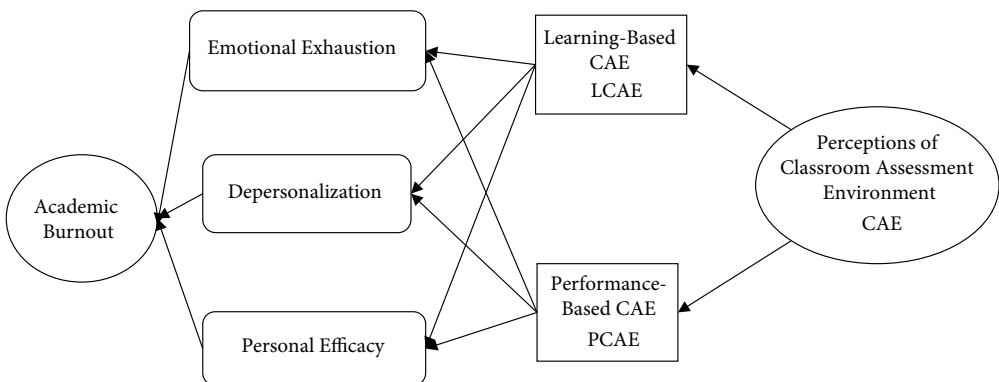


Figure 1. Conceptual Model

between students' perceptions of learning-based CAE and learning approach achievement-goals orientation. Furthermore, a weak, positive and significant relationship was with performance approach achievement-goals orientation. The study further found a weak, negative and significant relationship between students' perceptions of performance-based CAE and learning approach achievement-goal orientations while no relationship was established with performance approach achievement-goal orientations. For Mathematics anxiety,^[51] findings from multiple regression analysis showed that students' perceptions of PCAE explained Mathematics anxiety in a significantly positive way while perceived LCAE forecast Mathematics anxiety in a significantly negative manner. Also, noteworthy is the findings of^[13] which revealed that classroom emotional climate has a positive relationship with student conduct as moderated by teacher affiliation in a study conducted in the Northeastern United States' schools.

^[57] examined the unique and collective contributions of psychological susceptibilities and perceptions of the social-emotional setting by the middle-school students towards explaining the emergence of behavioural and emotional problems during their middle school days. They found that lower levels of internalizing problems (anxiety and depression) and externalizing tribulations (aggression and delinquent behaviour) were associated with more positive school setting perceptions and lower levels of psychological susceptibility. For a Finnish study with the purpose of examining the extent to which academic and background factors are related to school-related burnout at the school and individual levels, it was found among others by^[93] that positive motivation received from teachers in the school was negatively related to student burnout while at the individual level, negative school setting was positively related to student burnout. The findings of^[112] based on the results of multiple analysis of variance (MANOVA) is that students are significantly different in their feelings of school-related burnout with respect to their seeming attachment to school and open classroom climate. In

the Turkish context, a study conducted between 2013-2014 with 496 high school students from the two provinces of Batman and Diyarbakir by^[49] revealed that students differed significantly in their feelings of emotional exhaustion, depersonalization and personal accomplishments with regard to the clusters of their perceived CAE. Specifically, it was found that emotional exhaustion and desensitization increased and decreased as perceived PCAE and LCAE increased and decreased respectively while personal accomplishment increased and decreased as perceived LCAE and PCAE increased and decreased respectively.

5. Research Questions

Based on the deductions from the literature and objectives of this study relating to CAE and student burnout, the following research questions were answered:

- To what extent do various dimensions of CAE relate with undergraduate student accountants' emotional exhaustion?
- What is the degree of association between accounting students' perceptions of CAE and their feeling of cynicism?
- How dissimilar are the accounting students' perceptions of CAE and their personal accomplishments?

6. Research Hypotheses

In line with the objectives and research questions of this study, the following hypotheses stated in null form were tested:

- Undergraduate student accountants' emotional exhaustion does not significantly differ with respect to their perceptions of CAE;
- Undergraduate student accountants' feeling of depersonalization does not significantly differ with regard to their perceptions of CAE;
- Undergraduate student accountants' feeling of personal accomplishments does not significantly differ given their perceptions of CAE.

7. Research Methods

This section focuses on research design, study population, study sample and method of its selection, research instrument and techniques of its validity and reliability, as well as method of statistical analysis used.

7.1 Research Design, Population, Sample and Sampling Technique

This study adopted “survey research and causal-comparative research” designs. Survey research design, in the sense that, it allows for the information to be gathered from a sample of people using a questionnaire. The research design is causal-comparative because this study sought to examine the relationships between independent and dependent variables subsequent to the occurrence an action or event. In causal-comparative research design/method, the researcher’s mission is to determine whether independent variable affects the dependent variable in a comparison of two or groups of individuals or responses^[91]. In this study, students’ perceptions of CAE and academic burnout are independent and dependent variables respectively.

The population of this study is all university accounting undergraduates in Kwara State, a State in the North-Central Geo-political Zone in Nigeria. There are six (6) universities operating in Kwara State, of these, two are state-owned while four are owned by private bodies. Since two of these private universities are newly-established and that real academic activities have not taken off in earnest there, only four universities are considered target population.

Given the constraints of carrying out a survey when the population is large, this study selected a fractional part of the population as the representative of the population. Universities in Nigeria operate similar curriculum as designed from time to time by their regulator-National Universities Commission (NUC). This means that their curriculum programmes are similar to some extent. For example, courses offered in one programme in a university can be likened to the ones offered in the same programme in another university. Thus any

university selected is most likely to be representative of others. Since respondents are expected from four universities, one of them is randomly selected as sample. Based on the purpose of this study, all the accounting undergraduates from the selected university are subsequently surveyed. Al-Hikmah University, Ilorin is selected and all accounting students from 100-Level to 400-Level (year 1 to year 4) form the sample of this study.

7.2 Research Instruments, Validity and Reliability

Two scales are adopted for this study- Maslach Burnout Inventory-Student Survey (MBI-SS) developed by^[97] and classroom assessment environment scale CAES designed by^[2]. These two scales together with a section on demographic attributes of the respondents are combined in a single questionnaire under different sections and administered to the students.

MBI-SS as constructed by^[97] was used to collect data relevant to determining accounting students’ feeling of burnout in the university. MBI-SS is a standardized burnout inventory which validity and reliability have been empirically confirmed by other studies^[24, 59, 78, 11, 103, 111, 34, 63, 82, 115, 47, 55] subsequent to its use by^[97]. The original MBI-SS shares similar feature with other MBIs by having three dimensions of emotional exhaustion, cynicism/ depersonalization and professional accomplishment subscales but with fewer items. MBI-SS comprises 5, 4 and 6 items relating to emotional exhaustion, desensitization and personal efficacy respectively. All together, MBI-SS has 15 items. The items in the scale which are written in a manner to know the personal feelings are often required to be responded to using 7-point Likert frequency of occurrence response scale ranging from 0-6, that is, “never to everyday”. All these basic features of MBI-SS are strictly adhered to, adopted and used for this study.

Classroom assessment environment scale (CAES) designed by^[2] and subsequently improved upon by^[50] was adopted for this study. CAES as developed by^[2] has received world-wide adoption and its validity and reliability have been so

reported^[49, 19, 5, 27]. Based on students' perceptions of CAE, two dimensions of perceived CAE which are learning-based CAE (LCAE) and performance-based CAE (PCAE) are identified in the literature^[2, 3, 5, 6, 49, 19, 27, 51]. The LCAE and PCAE subscales of CAES comprise of 9 items each accounting for 18 items altogether in the CAES^[2, 3, 5, 49]. All the features required of CAES based on previous studies are adhered to except that the 5-point likert scale ranging from '1' (strongly disagree) to '5' (strongly agree) was changed to a likert scale of 5-point ranging from '0' (not true) to '4' (highly true).

The copies of the questionnaire were personally administered to accounting students at Al-Hikmah University in their lecture rooms while preparing for lessons after taking permission from their respective lecturers. Some levels of orientation were provided to the students before they filled the questionnaire. The reason for this was to let them know the aim of the study because most of the items required personal feelings in one capacity and perceptions of CAE where their teachers'/lecturers' activities form the fulcrum of the contents of CAES. The students were told not to exercise any fear as providing their true personal feelings and perceptions had no negative implication on them. Since accounting students do not major in psychology, they were oriented on what the term "burnout" is all about. Students were given between 30 minutes and 1 hour to complete the questionnaire or excess of 1 hour on request. The copies of the instrument were personally collected from the students and compiled for subsequent data analysis.

About 215 accounting students participated in the survey, out of which 204 accounting for 95% of the administered instruments were returned. Out of this, 2 copies were incomplete and thus not suitable for further use. Therefore, the analysis was carried out with 202 (94%) copies.

The face and content validity and construct validity are adopted for this study. Despite adopting standardized scales, the instruments are given to experts in curriculum and instruction and psychology who considered the scales adequate.

Construct validity of each of the scales was also found using exploratory factor analysis with fixed factors. The results of EFA carried out through principal component analysis (PCA) yielded a construct with three (3) factors that explained 52.01% of total variance for MBI-SS. The factor loads of the first factor (emotional exhaustion) that explained 31.8% ranged from 0.56 to 0.70, those of depersonalization that explained 12.63% of total variance ranged from 0.64 to 0.72 while those of personal accomplishment that explained 7.58 % ranged from 0.34 to 0.88. For the CAES which yielded two (2) factors that explained 48.55% of total variance, factor loads for first factor (LCAE) ranged from 0.58 to 0.81 and explained 40.79% of total variance, while the PCAE explained 7.76% of total variance and ranged from 0.35 to 0.79. The results of earlier tests: Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, that is, 0.82 and 0.89 for MBI-SS and CAES respectively; and Bartlett's Test of Sphericity as presented in Table 1 and Table 2 which is significant at p-value<0.01 favourably predicted the results obtained from factor analysis.

Table 1. KMO and Bartlett's Test for MBI-SS

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.823
Bartlett's Test of Sphericity	Approx. Chi-Square	900.700
	df	105
	Sig.	.000

Table 2. KMO and Bartlett's Test for CAES

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.892
Bartlett's Test of Sphericity	Approx. Chi-Square	1594.023
	df	153
	Sig.	.000

For the reliability, cronbach's alpha reliability test was used to ascertain the reliability and consistency of the two instruments adopted for this study. The Cronbach's Alpha for each of the dimensions of the two scales was found separately. The results of the

reliability test of the two scales used are presented in the Table 3 and Table 4 in terms of their dimensions.

Table 3. Reliability Test of Maslach Burnout Inventory-Student Survey (MBI-SS)

Dimension	Cronbach's Alpha	Number of Items
Emotional Exhaustion	0.728	5
Depersonalization	0.732	4
Personal Accomplishment	0.714	6

Table 4. Reliability Test of Classroom Assessment Environment Scale (CAES)

Dimension	Cronbach's Alpha	Number of Items
LCAE	0.827	9
PCAE	0.869	9

Both Table 3 and Table 4 reveal that the Cronbach's Alpha reliability coefficient of each of the dimensions of MBI-SS and CAES are >0.7 and >0.8 respectively indicating that both scales are consistently reliable. These results are in consistent with prior studies on MBI-SS^[59, 115, 55] and CAES^[19, 49, 5, 27]. As a matter of fact, all cronbach' alpha values meet the criterion of $\alpha > 0.7$ ^[80] considered reliable co-efficient.

7.3 Method of Statistical Analysis

Since this study adopted causal-comparative method, that is, established a "cause and effect" situation whereby the independent variable has more than two homogeneous groups, Krukal-Wallis test, a non-parametric statistic equivalent of one-way analysis of variance (ANOVA) was applied because the data failed the normality and homogeneity of variance assumptions.

In causal-comparative research using Kruskal-Wallis, there is need for the grouping of responses related to the independent variable. The process of grouping these responses is referred to as cluster analysis. Cluster analysis, a multivariate statistical tool, involves dividing objects into homogeneous groups with respect to the features identified. In order to achieve the purpose of this study, a cluster analysis was carried out on the scores obtained

from the responses to LCAE and PCAE subscales of the CAES since the perceptions of CAE represent the independent variable. Using the path followed by^[49], non-hierarchical method of cluster analysis, that is, k-means was adopted, because it is better used when the number of clusters is known prior to the analysis. In agreement with^[49], this study identified three possible clusters: cluster 1-high learning-based and low performance-based perceptions; cluster 2-low learning-based and high performance-based perceptions; and cluster 3-medium-level learning-based and performance-based perceptions. The reason for not envisaging learning-based and performance-based perceptions that are both low on one hand and both high on the other hand is that LCAE and PCAE subscales are worded in opposite direction. While LCAE items are worded positively, the elements in the PCAE sub-scale are negatively worded. Thus it was predicted that both low and both high scores of the subscales are seldom possible.

Subsequently, Kruskal-Wallis was performed to the differences in the accounting undergraduates' feelings of burnout with respect to the clusters identified. For the purpose of appropriately using Kruskal-Wallis with scores of cluster analysis, perceptions of LCAE and PCAE with mean scores 0-1.7 was considered "low", 1.71-2.9 was assumed "medium" while 2.91-4.00 was considered "high".

8. Results and Discussion

This section focuses on analysis of data, presentation of results and discussion of findings. Specifically, it describes the analysis of demographic data, cluster analysis using k-means clustering technique, tests of hypotheses and analysis of study's research questions.

8.1 Respondents' Profile

The frequency count was applied to analyse the demographic data of the respondents. Demographic data surveyed include age, gender and students' class or level in the university. The information regarding all the demographic attributes examined is presented in the Table 5.

Table 5. Distribution of Respondents by Demographic Attributes

Description	Frequency	Percentage
AGE		
16-18	35	17.3
19-21	115	56.9
22-24	44	21.8
25 & above	8	4.0
Total	202	100.0
SEX		
Male	87	43.1
Female	115	56.9
Total	202	100.0
LEVEL		
100	23	11.4
200	51	25.2
300	68	33.7
400	60	29.7
Total	202	100.0

Table 5 depicts that more than 80% of the respondents are 19 years old and above. An indication that shows that most of the respondents are matured enough to understand what burnout is all about. This is buttressed with 88.6% of the respondents being at 200 Level and above. It is expected that students who are in 200 Level (second year and above) have more experience regarding the CAE and feelings of academic burnout because they have spent more years in the university. This positively consolidates the results obtained from this survey.

8.2 Cluster Analysis

Basically, k-means clustering technique adopted produced three clusters, each consisting of a mix of LCAE and PCAE. This is as presented in Table 6.

Table 6. Clusters of the Students' Perceptions of LCAE and PCAE

Cluster	Size	Dimension	Mean	Remark
1	95	LCAE	2.99	High
		PCAE	0.77	Low
2	27	LCAE	1.17	Low
		PCAE	3.00	High
3	80	LCAE	2.39	Medium
		PCAE	1.81	Medium

As earlier envisaged whereby the mean scores of the students' perceptions of the dimensions of CAES of 0-1.7, 1.71-2.90 and 2.91-4.00 are considered low, medium and high respectively, Table 6 depicted three clusters that fall within the range predicted. As obtained from Table 6, cluster 1 comprises LCAE and PCAE mean scores of 2.99 and 0.77 respectively. Using the score intervals considered point of reference in the interpretation of CAES, it can be concluded that 95 students in the first cluster have high learning-based perceptions and low performance-based perceptions of CAE respectively. For the cluster 2, 27 students who fall within this group have LCAE and PCAE mean scores of 1.17 and 3.00 respectively. The result obtained in the second cluster based on the score interval used as reference point suggests that students in this cluster have low learning-based perceptions and high performance-based perceptions of CAE respectively. For the third cluster, 80 students who fall within the range used as the reference point have medium learning-based and performance-based perceptions of CAE with mean scores of 2.39 and 1.81 respectively.

Since the perceptions of the dimensions of CAE are the independent variables, a test of statistical significance of the students' LCAE and PCAE mean scores was performed using analysis of variance (ANOVA). The result of this test is presented in Table 7.

With F tests showing F-ratio of 246.8 and p-value of 0.00 for LCAE and the F-ratio of 534.9

and p-value of 0.00 for PCAE, it is evident from Table 7 that the mean scores of the two dimensions of CAE obtained from the k-mean cluster analysis were statistically significant. Thus, using the clusters obtained for subsequent test of hypotheses is considered statistically valid.

8.3 Homogeneity of Variance and Normality Tests

Prior to the test of hypotheses, homogeneity of variance and normality tests were conducted to know whether the data met the assumptions of one-way ANOVA. These tests are presented in Tables 8 and 9.

From Table 8, it is observable that the data for each of the dimensions of academic burn-out with reference to clusters of perceived CAE breach the assumption of normality based on the results of Kolmogorov-Smirnov tests which are all significant at p-value<0.01. These are supported by Shapiro-Wilk tests except with cluster

3 under emotional exhaustion which is not significant. For Levene's tests (Table 9), based on mean, assumption of equality of variance is upheld under emotional exhaustion but violated under depersonalization and personal accomplishment with p-value>0.05, p-value<0.5 and p-value=0.05 respectively. Overall, since all the assumptions of one-way ANOVA are not met, Kruskal-Wallis test, a non-parametric statistic equivalent of one-way ANOVA, was adopted.

8.4 Analysis of Research Questions and Hypotheses Testing

The research questions were answered descriptively using the mean ranks of the Kruskal-Wallis test while its test statistics was used for test of hypotheses. Based on the results depicted in Table 10 for emotional exhaustion, the highest mean rank belongs to cluster 2, followed by clusters 3 and 1 in descending order. With mean rank of 164.44 relating to cluster 2 followed by 101.75 and

Table 7. Test of Significance of the Differences in the Students' Perceptions of LCAE and PCAE

Dimension	Cluster		Error		F	Sig.
	Mean Square	Df	Mean Square	df		
LCAE	35.765	2	.145	199	246.769	.000
PCAE	59.275	2	.111	199	534.903	.000

Table 8. Tests of Normality

Cluster Statistic		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		df	Sig.	Statistic	df	Sig.	
Emotional Exhaustion	1	.165	.95	.000	.937	.95	.000
	2	.332	.27	.000	.671	.27	.000
	3	.152	.80	.000	.978	.80	.177
Depersonalization	1	.175	.95	.000	.887	.95	.000
	2	.301	.27	.000	.700	.27	.000
	3	.196	.80	.000	.940	.80	.001
Personal Accomplishment	1	.142	.95	.000	.905	.95	.000
	2	.311	.27	.000	.745	.27	.000
	3	.174	.80	.000	.947	.80	.002

a. Lilliefors Significance Correction

Table 9. Homogeneity of Variance Test

Dimension		Levene Statistic	df1	df2	Sig.
Exhaustion	Based on Mean	.476	2	199	.622
	Based on Median	.549	2	199	.578
	Based on Median and with adjusted df	.549	2	151.470	.579
	Based on trimmed mean	.274	2	199	.760
Depersonalization	Based on Mean	3.573	2	199	.030
	Based on Median	2.679	2	199	.071
	Based on Median and with adjusted df	2.679	2	172.174	.071
	Based on trimmed mean	3.379	2	199	.036
Accomplishment	Based on Mean	3.050	2	199	.050
	Based on Median	3.503	2	199	.032
	Based on Median and with adjusted df	3.503	2	198.952	.032
	Based on trimmed mean	3.090	2	199	.048

83.44 relating to cluster 3 and 1 respectively, it is observable that emotional exhaustion increases as performance-based perceptions of CAE increase while emotional exhaustion decreases as the learning-based perceptions of CAE increase. This shows that performance-based perceptions of CAE have positive relationship with emotional exhaustion while the learning-based perceptions have negative relationship with emotional exhaustion as obtained from survey of accounting undergraduates in Al-Hikmah University.

For depersonalization, Table 10 depicts that the highest mean rank belongs to cluster 2 followed by clusters 3 and 1 in descending order. This suggests that with mean score of 167.2 belonging to cluster 2, 101.04 to cluster 3 and 83.21 to cluster 1, it is evident that feelings of cynicism increase as performance-based perceptions of CAE increase while feelings of cynicism decrease as the learning-based perceptions of CAE increase. This shows that performance-based perceptions of CAE and accounting students' feelings of cynicism are positively related while the learning-based perceptions have negative relationship with students' feelings of cynicism as obtained from survey of accounting undergraduates in Al-Hikmah University. Thus, the students' feelings of emotional exhaustion and cynicism relate in the same manner to students' perceptions of LCAE and PCAE.

It can be further inferred from Table 10 regarding personal accomplishment that the highest mean rank of 125.5 relates with cluster 1 of high LCAE and low PCAE followed by cluster 3 of medium LCAE and PCAE as well as cluster 2 of low LCAE and high PCAE. This result suggests that feelings of personal accomplishment by accounting students increase as learning-based perceptions of CAE increase while the feelings go down as performance-based perceptions of CAE increase. This is indicative of positive relationship between personal accomplishment dimension of student burnout and LCAE and the negative relationship between personal accomplishment and PCAE. Thus what is obtainable here is the opposite of what is evident in the relationship between both cynicism and emotional exhaustion and CAE.

Table 10. Descriptive Statistics of the Relationship between CAE and Dimensions of Academic Burnout

Cluster	N	Mean Rank	
Emotional Exhaustion	1	95	83.40
	2	27	164.44
	3	80	101.75
	Total	202	

Depersonalization	1	95	83.21
	2	27	167.20
	3	80	101.04
	Total	202	
Personal Accomplishment	1	95	125.75
	2	27	37.41
	3	80	94.34
	Total	202	

Hypotheses' testing focuses on establishing whether there are significant differences in the university accounting students' feelings of each of dimensions of student/academic burnout regarding the clusters of their perceptions of CAE. Based on Kruskal-Wallis test statistics depicted in Table 11 where chi-square values for emotional exhaustion, cynicism/depersonalization and personal accomplishment are 40.62, 43.73 and 50.18 respectively as well as p -value <0.05 , all the three hypotheses are rejected. Thus, results show that the undergraduate student accountants' feelings of each of dimensions of academic/school-related burnout differ significantly with reference to their perceptions of CAE. This finding is buttressed by the results depicted in Table 10 where differences are noticeable in the mean scores of the accounting students' feelings of each of dimensions of academic burnout having regard to the cluster of their perceptions of LCAE and PCAE.

Table 11. Kruskal-Wallis Test Statistics

	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Chi-Square (X^2)	40.623	43.733	50.186
Df	2	2	2
Asymp. Sig.	.000	.000	.000

8.5 Discussion

Since this study sought to determine the extent of the relationship between university undergraduate accounting students' levels or feelings of academic burnout and their perceptions of classroom assess-

ment environment (CAE), all the dimensions of the two variables are related to achieve the aim of the study. Specifically, students' perceptions of both dimensions of CAE are related individually to each of the dimensions of student burnout. The findings showed that students' feelings of academic/school-related burnout differ with reference to their perceptions of CAE. In particular, it is found that increasing performance-based perceptions of CAE are related to increasing levels or feelings of emotional exhaustion and desensitization while increasing learning-based perceptions of CAE are related to decreasing levels or feelings of emotional exhaustion and desensitization. Conversely, the increasing performance-based perceptions of CAE has something in common with decreasing levels or feelings of personal accomplishment while increasing learning-based perceptions of CAE are related to increasing levels or feelings of personal accomplishment. Thus, the performance-based perceptions positively correlate with academic burnout while the learning-based perceptions of CAE negatively correlate with academic burnout.

The findings of this study accord with a number of previous related studies. In the first instance, the findings of this study substantially agree with the findings of^[49] who also found that students differed significantly in their feelings of emotional exhaustion, cynicism and personal accomplishments with respect to the clusters of their perceived CAE. Indeed,^[49] also established positive and negative correlation of performance-based and learning-based perceptions of CAE respectively with academic burnout but in Turkish context. Also consistent with findings of this study are those of^[57, 93, 112]. While^[112] findings showed that students are significantly different in their feelings of school-related burnout with respect to their perceived attachment to school and open classroom environment,^[93] found that teachers' positive motivation of students - an activity similar to LCAE and negative school climate- a relatively equivalent of PCAE are negatively and positively related to academic burnout respectively. Since anxiety, depression, tension and aggression belong to the symptoms of burnout, establishing an association between their lower levels and positive school cli-

mate perceptions as found by^[57] also agrees with the findings of this study.

Linking the achievement-goals orientation to the personal accomplishment^[19] findings of significantly positive relationship between students' perceptions of LCAE and learning approach achievement-goals orientation on one hand and significantly negative association between students' perceptions of PCAE and learning approach achievement-goals orientation on the other hand also accord with findings of this study. Also confirmed the findings of this study most especially the first and second hypotheses is the conclusion of ^[51]that students' perceptions of PCAE and LCAE predicted Mathematics anxiety in significantly positive and negative manner respectively. The findings of this study are also consistent with a number of previous works most especially regarding the third hypothesis and research question^[1, 2, 4, 5]. The findings of these works established positive relationship of perceived LCAE on one hand and negative relationship of perceived PCAE on the other hand with students' achievement goals, self-efficacy and mastery goals, self-efficacy and task value and academic achievement which are all synonymous to personal accomplishment- a third dimension of academic burnout.

9. Summary and Conclusion

The classroom assessment activities factor majorly in the students' behavioural pattern and attitudes towards their studies. While the assessment involves systematic gathering of requisite information about students' learning as an aid to teaching-learning process, the environment in which it takes place must also be prioritized. The nature of learning-oriented and performance-oriented activities that take place in the class determines the nature of classroom assessment environment and subsequently relates with the levels of the students' interest in their studies.

Having realized the nexus of these two variables and their dimensions, a number of conclusions were made from the findings of the study. First, since it is empirically evident that perceptions of CAE have significant role to play in the display

of burnout by accounting students, it is concluded that perceived CAE remains an important factor that must be taken care of to reduce incidence of burnout in the university accounting students. It is also evident that where expressions about LCAE and PCAE are positively and negatively worded respectively, only three clusters of homogeneous groups of high LCAE-low PCAE, low LCAE-high PCAE and medium LCAE-medium PCAE are realistic.

Since the findings showed that the students' feelings of emotional exhaustion and cynicism/ depersonalization increase and that personal accomplishment decrease as perceived PCAE increase, it is empirically justifiable that performance-oriented assessment activities in the class prompt the academic burnout. It is equally justifiably based on the findings of this study that learning-oriented activities in the classroom setting bring down the likelihood of incidence of academic burnout in accounting students with the evidence that, feelings of emotional exhaustion and desensitization decrease and personal accomplishment increase as perceived LCAE increase.

In order to ensure that problems associated with incidence of burnout as engendered by perceived CAE are adequately taken care of, the following recommendations are made based on the deductions from the conclusion of the study:

- There is need for accounting educators who are in firm control of classroom activities to prioritize assessment practices that will facilitate the emergence of learning-based classroom assessment environment. This can be done by ensuring that appropriate feedback is given to students' mistakes, strengths and weaknesses are promptly attended to, use of different teaching methods depending on the class situation, the assignments and tests boost thinking faculty of students, to mention but a few.
- Accounting educators are also expected to avoid assessment activities that result in the emergence of classroom assessment environment that is purely performance-oriented. An exercise that is possible when open comparisons of students' performances in the class are

avoided, much more importance is not attached to getting higher grades than learning a course, students with lower grades are positively reinforced rather than criticized, recognition of students' zeal to learn and avoidance of conducting difficult tests for students.

- Accounting educators are also expected to teach to positively influence three basic domains of educational objectives, that is, psychomotor, affective and cognitive domains.
- Accounting educators should avoid creating fear in the mind of their students by ensuring that efforts are made to demystify any course no matter how difficult it appears to the students.
- The university management should ensure that accounting educators are familiar with the need to institutionalize learning-oriented assessment environment. This can be done by organizing or sponsoring them to related seminars/workshops. Management can also reward accounting educators whose assessment activities are adjudged by the students to be more learning-oriented.

This study is unique for sensitizing accounting educators and school management on improving teaching-learning situation. However, its coverage restriction to only one university has implication on the generalization of its findings in terms of all accounting students or all undergraduate students in Nigerian universities. Thus, future studies should widen the scope as well as make academic burnout a function of both personal and contextual factors.

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