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Motivation, stress, anxiety and emotions as predictors of academic boredom among degree students of National Teachers' Institute Osogbo, Osun State, Nigeria

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ABSTRACT

This study examined the relationship between motivation, stress, anxiety and emotions as predictors of academic boredom among degree students of National Teachers' Institute Osogbo, Osun State. The respondents of this study were 310, Fresh and Second year students. The study adopted descriptive research design of cross sectional type. Four research instruments were utilized for data collection. They are; - i Zung Self-Rating Anxiety Scale, ii Academic Motivation Scale (AMS), iii Academic Boredom Scale (ABS) and iv Academic Emotions Questionnaire (AEQ). Three research questions were raised and answered in this study. Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis was the statistical tool used for analyzing the data collected. The result obtained from the descriptive statistics and intercorrelations among the study variables indicates that academic boredom correlated with anxiety, motivation, emotion and stress. Also the independent variables had joint significant relationship with academic boredom. In order of magnitude motivation was the most potent predictor of academic boredom. Suggestions were made on how stakeholders in education can design educational programmers, structure work environments, counsel clients and manage individual's day-to-day live events in order to reduce academic boredom in all categories of learners.

Keywords: Motivation, Stress, Anxiety, Emotions, Academic Boredom, Degree Students, National Teachers' Institute Osogbo, Osun State

1. INTRODUCTION

Boredom is a perennial student complaint, emerging research shows it is more than students' not feeling entertained, but rather a "flavor of stress" that can interfere with their ability to learn and even their health. An international group of researchers argues that the experience of boredom directly connects to a student's inability to focus attention. Boredom is one of the most consistent experiences of school. In the literature, there exist many different definitions of boredom as well as multiple means to measure this construct, such as self-report measures, observation, and neurological and physiological sensors (Vogel-Walcutt et al. 2012).

Greenson (1953) described boredom as an experience associated with a negative attitude toward an activity, along with a reduction of physical actions, an inability to specify what one desires, a passive attitude hoping for a change from an external source, and a sense of time distortion. Although Greenson's description of boredom was based on case analysis, his work laid a foundation for later investigations that sought to systematically define boredom. For instance, Geiwitz (1966) concluded that boredom was related to Blow arousal, increased feelings of unpleasantness, constraint, and repetitiveness. In recent years, Eastwood et al. (2012) concluded that boredom is a negative emotion whereby one cannot meaningfully engage in a task, is unable to sustain required attention, and attributes an external environment as a cause of this aversive feeling. In spite of the effort to seek to identify what constitutes the experience of boredom, it is clear that a definition of boredom should also be grounded in a model or a theoretical framework.

Russell (1980) built a model to explain and discriminate different emotions, including boredom. In the circumplex model, emotions are organized in a circular manner along two dimensions: pleasant–unpleasant and low arousal–high arousal, with boredom falling on the unpleasant and low arousal quadrant. This classification is supported by Vogel-Walcutt et al.'s (2012) review of literature on boredom in education settings. O'Hanlon (1981) proposed that boredom should be defined as a Bunique psychophysiological state [that] comprises a set of interrelated emotional, motivational, and cognitive reactions having a common biological basis. In particular, the emotional component is a stressful state to overcome the typically low arousal state of being bored; the motivational component is referred to as high effort spent to maintain arousal; and the cognitive component is referred to as reduced attention due to a lower level of arousal.

Scherer (2009) echoed multi -component conceptualization of boredom (as well as other emotions) and developed the component processing model (CPM) of emotions. CPM emphasized the integrated and recursive nature of various components: cognitive appraisal, feeling, motivation, and physiology responses. With regard to boredom, as well as other emotions, in achievement settings, Pekrun (2006) developed a control-value theory of emotion which embraces the same multi-component approach. Pekrun et al. (2010) expressed that boredom consists of specific affective components (unpleasant, aversive feelings), cognitive components (altered perceptions of time), physiological components (reduced arousal), expressive components (facial, vocal, and postural expression), and motivational components (motivation to change the activity or to leave the situation). The two-dimensional model was incorporated into their conceptualization of achievement boredom: it is also categorized as a negative, deactivating emotion, because it is experienced as unpleasant and involves a reduction of physiological activation (Pekrun et al. 2010).

Pekrun's (2006) control-value theory, therefore, provides a conceptual understanding of academic boredom which can be defined as a sense of emptiness and a frame of mind accompanied by the lack of activity, the lack of actions towards experiencing and learning about the world or as a rather negative emotional state consisting in the feeling of inner emptiness and the lack of interest, usually caused by monotony, invariability of environment, the same activities and the absence of incentives (Buksik, According to component theories of emotional experiences (Kleinginna & Kleinginna, 1981; Scherer, 2000), boredom can be viewed as a type of emotion comprising five components: affective (i.e. unpleasant feelings), cognitive (i.e. alerted perception of time), motivational (i.e. a desire to change an activity), expressive (i.e. facial and bodily expressions showing a lack of excitement) and physiological (i.e. reduced arousal and overall tiredness). It is also important to note that boredom is not the opposite of interest or enjoyment in view of the fact that it is seen as a distinctive emotional experience that consists of multiple components (Pekrun, Götz, Daniels, Stupnisky & Perry, 2010).

2. BOREDOM EXPERIENCED IN DIFFERENT ACADEMIC SITUATIONS

In the control-value theoretical framework, academic boredom is classified as an activity emotion, in which the attentional focus is on the action (Pekrun, 2006). There is a myriad of academic-related actions in which boredom can be aroused, such as listening to a lecture, working on an in-class writing task, conducting a hands-on experiment, preparing for a coming class, reading through class notes, and studying for examinations. Instead of focusing on each individual activity, researchers often examine how boredom is experienced in a broader category of action. For instance, in Mann and Robinson's (2009) studies, the focus was on how often students reported being bored in class, and in Tze et al. (2014) study, the emphasis was about how students' experience of boredom in class changed over time.

Another category of academic-related activities that has received researchers' attention is studying/learning. For example, Fritea and Fritea (2012) investigated students' level of boredom when studying Romanian. Similarly, Tze et al. (2013) examined the intensity of boredom when university students studied for their courses in Canada and China. These two types of experiences—class-related boredom and boredom experienced while studying—could be related in part to learning environments, such as didactic and teacher-centered lecturing, and/or to cognitive appraisals of the situations, such as not finding meaning in studying (e.g., Pekrun 2006).

Specifically, Pekrun et al. (2011) found a high correlation, $r = .73$, between class-related and learning-related boredom. Despite this strong correlation, learning-related boredom was negatively related with academic control, motivation, use of learning strategies, and achievement to a greater extent than was class-related boredom. A third category of activity in which boredom may be experienced is testing.

Students with attention deficit hyperactivity disorder are more likely to report feeling bored than students with normal attention. Students tackling material that is too difficult for them—and thus taking up more working memory—also is more likely to report it is "boring" rather than simply frustrating." When people are in a negative emotional state, discouraged, or down, it causes attention problems. It is a known fact that when people are stressed it makes it harder to focus and pay attention at a very basic, fundamental level. Like any type of stress, boredom hampers the prefrontal cortex, the brain area positioned just behind that student's

furrowed brow that allows a student to reason and hold different facts in working memory Katrina Kenah, Julie Bernhardt, Toby Cumming, Neil Spratt, Julie Luker, Heidi Janssen (2017).

Disrupting the brain's executive function also allows its emotional center, the amygdala, to take over, which might explain why bored students are more likely to feel tired, anxious, or depressed, and why they sometimes respond by either "acting out or zoning out," according to a neurologist Judy Willis (2011). In fact, boredom and other types of stress appear to feed on each other. Students who are stressed due to emotional trauma, for example, are more likely to disengage and feel bored, which adds to their stress. Likewise, everyday stresses, like a noisy classroom, can sap students' attention and contribute to their boredom. Physically, a bored student will go through cycles of higher and lower energy; he or she might fall asleep during a down period, then squirm or doodle in an attempt to "wake up" and pay attention.

Academic boredom is common among students at university. Most just shrug it off as a minor distraction. For those less fortunate, its effects are far from trivial and not to be underestimated. As surprising as it might seem, students really do get bored at university. Despite best intentions, and the range of new and innovative technologies increasingly at disposal, university doesn't always provide the stimulation many undergraduates need to keep them fully engaged (Andreas Elpidorou, 2018). Lecturers see boredom as too frequent even if they wouldn't care to admit it; drowsiness and yawning in class, heads resting in hands, bodies slouched in seats, vacant stares and the distractions which come from electronic devices are all fairly obvious clues. But just as teaching at university requires effort, learning does too.

At one level, of course, academic boredom is nothing to be overly concerned about. Boredom is been experience in one form or another, and students are certainly not immune. Academic boredom can, in fact, be a positive and creative experience for some, but this is generally not the norm. At another level entirely, academic boredom is a negative and disabling achievement-related emotion resulting in, among other things, diminished academic performance (Bram Spruyt, Lauren Vandebossche, Gil Keppens, Jessy Siongers, Filip Van Droogenbroeck 2018). Its influence is far reaching, its effects sometimes chronic.

As a 'trait', some students are more prone to academic boredom than others and this is relatively easy to measure. At its most extreme, boredom proneness has been associated with loneliness and withdrawal, anxiety and depression, disruptive and aggressive behaviour, drug taking, sexual promiscuity, risk taking and self-harm.

- Academic boredom is a highly situated and transient phenomenon associated with familiarity, repetition and low levels of arousal and attention. Varying from one student to another in the moment, a typology of 'states' has nevertheless been produced.
- Academic boredom occurs in lectures, seminars, tutorials and when using on-line materials posted on VLEs. Lectures with a perceived excess and inappropriate use of PowerPoint maintain interest for the least amount of time, closely followed by on-line materials posted in repository form.
- Academic boredom occurs when studying and those more prone to academic boredom than others frequently display the common characteristics of less effective learners including surface rather than deep or strategic approaches, poor attendance and fewer hours devoted to self-study (Andreas Elpidorou, 2017).

Academic boredom occurs during the completion of certain tasks and assignments used for the purposes of assessment. Attribution effects can erode confidence and reinforce poor study habits. Cumulatively, this results in lower grades leading to less favourable degree

outcomes. Motivation in learning is generally understood to denote the desire to initiate learning and the effort employed to sustain it (Ortega, 2009). The issue of motivation has been considered as one of the most important variables that can affect how and to what extent a subject is learned. The fact that motivation is a dynamic factor has been acknowledged, among others, by Williams and Burden (1997), Dörnyei and Ottó (1998) and Ushioda (1998). For example, Ushioda (1998) claims that in the case of institutionalized learning motivation are not likely to remain stable over time but alter. This is because students' objectives are subject to change in reaction to negative or positive experiences linked with the process of learning it. It should be noted, however, that the dynamic dimension of motivation can also be described by dynamic systems theory (Larsen-Freeman & Cameron, 2008). According to the theory, students' motives, effort and engagement are characterized by incessant changes related to the impact of internal and external factors, which are intricately interconnected and are themselves subject to substantial variations.

Anxiety, like motivation, has been studied as a potential factor influencing learning success for many years. In general, anxiety is defined as "the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system" (Spielberger, 1983). In the context of learning, however, anxiety is viewed as the feeling of tension and apprehension (MacIntyre & Gardner, 1994), or, as a distinct complex of self-perceptions, beliefs, feelings, and behaviours related to classroom learning arising from the uniqueness of the learning process (Horwitz, Horwitz & Cope, 1986). Anxiety can be classified in three ways: *state*, *trait* and *situation-specific*. As for the first two types, they can be considered as the apprehension that people experience at specific moments in reaction to certain situations and as a characteristic of an individual's personality, respectively. As regards the third type, it can be viewed as the anxiety generated by a specific type of situation or event (Ellis, 2008).

Academic emotions are those emotions relating to achievement activities, such as studying at university and test results (Pekrun, 2006). Discrete emotions such as enjoyment, boredom, and anxiety can be distinguished from general affect and are experienced in different frequencies. The most reported emotion within the higher education context is anxiety (Pekrun and Stephens, 2010), while enjoyment and boredom are also frequently reported (2011). These discrete emotions relate to each other (Pekrun et al., 2011) and can change over time. Ranellucci et al. (2015) found that undergraduate students self-reported slightly less enjoyment, less anxiety, and nearly the same experience of boredom during their second academic year compared to their first. Alternatively, Pekrun et al. (2014) reported increasing boredom levels for undergraduate students over one semester. Misra and McKean (2000) showed a negative trend between self-reported anxiety levels for freshmen and second-year students, however it was not significant.

In recent years, Eastwood et al. (2012) concluded that boredom is a negative emotion whereby one cannot meaningfully engage in a task, is unable to sustain required attention, and attributes an external environment as a cause of this aversive feeling. In spite of the effort to seek to identify what constitutes the experience of boredom, it is clear that a definition of boredom should also be grounded in a model or a theoretical framework.

In the circumplex model, emotions are organized in a circular manner along two dimensions: pleasant–unpleasant and low arousal–high arousal, with boredom falling on the unpleasant and low arousal quadrant. This classification is supported by Vogel-Walcutt et al.'s (2012) review of literature on boredom in education settings. In particular, the authors

commented that boredom can be conceptualized as a Ban unpleasant and low-arousal emotion. Although this conceptualization facilitates the understanding of boredom in relation to other emotions, it does not describe what constitutes boredom. O’Hanlon (1981) proposed that boredom should be defined as a Bunique psycho -physiological state [that] comprises a set of interrelated emotional, motivational, and cognitive reactions having a common biological basis. In particular, the emotional component is a stressful state to overcome the typically low arousal state of being bored; the motivational component is referred to as high effort spent to maintain arousal; and the cognitive component is referred to as reduced attention due to a lower level of arousal.

Findings also give reason to think carefully about how students are supported towards becoming confident and independent learners, taking more responsibility for their own actions from induction to graduation. Instrumental in all of this, of course, are the parts played not only by lecturers but by study skills tutors, learning developers and counsellors as well as learning analytics itself. Further research involving academic boredom and learning analytics might yet unlock their considerable diagnostic potential for identifying those students most at risk of falling behind or dropping out completely as well as their general academic health and well-being.

3. OBJECTIVES OF THE STUDY

The main objective of this study is to investigate motivation, stress, anxiety and emotions as predictors of academic boredom among the degree students of National Teachers’ Institute in Osogbo Osun State. The specific objectives include to:-

- 1) examine the relationship between the independent variables (motivation, stress, anxiety and emotions) to the prediction of the dependent variables (academic boredom) among degree students of NTI.
- 2) investigate the joint contributions of the independent variables (motivation, stress, anxiety and emotions) to the prediction of the dependent variables (academic boredom) among degree students of NTI and
- 3) determine the relative contributions of each of the independent variables (motivation, stress, anxiety and emotions) to the prediction of the dependent variables (academic boredom) among degree students of NTI.

4. RESEARCH QUESTIONS

The following research questions were raised and answered in this study

- 1) What is the significant relationship between the independent variables (motivation, stress, anxiety and emotions) and the dependent variable (academic boredom) among degree students of NTI?
- 2) To what extent would the joint contributions of the independent variables (motivation, stress, anxiety and emotions) predict the dependent variable (academic boredom) among degree students of NTI?

- 3) What is the relative contribution of each of the independent variables (motivation, stress, anxiety and emotions) to the prediction of the dependent variable (academic boredom) among degree students of NTI?

5. METHODOLOGY

Design

The research design adopted for this study was descriptive research design of cross-sectional type. With this design, the researcher intends to assess the relationship of independent variables and the dependent variable without necessarily manipulating the independent variable.

Sample and Sampling Techniques

Respondents were convenience sample of 310 undergraduate students who's mean age was 19.31 years with a standard deviation of 1.69 (age ranging from 19 to 41 years). They were studying across all courses offered in various NTI Centres which run degree programmes in Nigeria with focus on Arts, Education, Sciences and Social Sciences. The Nigeria academic year is comprised of two semesters with an examination period at the end of each semester. This cross-sectional study included respondents from two different levels of education: 192 first-year students (freshmen group, 61.9% response rate of total number) and 118 second-year students (second-year group, 38.1% response rate of total number). The demographic data reveals that out of the respondents 196 (63.2%) were females while 114 (36.8%) were males, 212 (68.4%) were married and 98 (31.6%) were single, concerning socio-economic status, 82 (26.5%) were from high socio-economic while 228 (73.5%) were from low socio-economic background. The study was conducted in two phases. Respondents were recruited about 2 weeks into the academic year when students were either at the beginning of their first semester or second semester (Phase 1—survey, April). Data was collected from students at the beginning of their programme when they had no examination experience (freshmen students), as well as from students at the beginning of their second academic year, when they had just finished their first academic year (second-year students). The questionnaires were distributed during a general and compulsory lecture of each course. Participation was voluntary and respondents had the chance to withdraw at any point of the study.

Instruments

The following instruments were used to elicit information in this study. They are:-

Zung Self-Rating Anxiety Scale

The **Zung Self-Rating Anxiety Scale** (SAS) was designed by William W. K. Zung M.D, (1929-1992) a professor of Psychiatry from Duke University, to quantify a patient's level of anxiety. The SAS is a 20-item self-report assessment device built to measure anxiety levels, based on scoring in 4 groups of manifestations: cognitive, autonomic, motor and central nervous system symptoms. Answering the statements a person should indicate how much each statement applies to him or her within a period of one or two weeks prior to taking the test. Each question is scored on a Likert-type scale of 1-4 (based on these replies: "a little of the time," "some of

the time," "good part of the time," "most of the time"). Some questions are negatively worded to avoid the problem of set response. Overall assessment is done by total score.

The total raw scores range from 20-80. The raw score then needs to be converted to an "Anxiety Index" score using the chart on the paper version of the test that can be found on the link below. The "Anxiety Index" score can then be used on this scale below to determine the clinical interpretation of one's level of anxiety:

- 20-44 Normal Range
- 45-59 Mild to Moderate Anxiety Levels
- 60-74 Marked to Severe Anxiety Levels
- 75-80 Extreme Anxiety Levels

Thus the respondents of this study were those that score between 60 and 80 in the anxiety scale.

Academic Emotions Questionnaire (AEQ)

The AEQ is a self-report instrument designed to measure students' emotions in three different categories of academic settings: class-related, learning-related, and test-related situations (Pekrun et al., 2005). There are eight class-related emotions scales (class-related enjoyment, hope, pride, anger, anxiety, shame, hopelessness, and boredom) that are measured with 80 items. As recommended in the manual by Pekrun et al. (2005), the class-related emotions scales were shortened and adapted for use in this study. Three items were used from each scale comprising a total of 24 items. The word "class" was replaced with the word "activity" in order to direct students to rate the under- or over-challenging situation that was the focus of the survey. Example items were for enjoyment "*I get excited about going to university,*" for boredom "*I think the courses of my study are boring,*" and for anxiety "*Thinking about my study makes me feel uneasy.*"

Academic Boredom Scale (ABS)

The ABS was developed by the researcher having read through literature. Items were generated and through a qualitative pilot study, 20 degree students of institution different from the respondent's institution were asked to describe an academic situation in which they were bored, and report their accompanying thoughts and feeling in that situation. They were also asked to describe how they felt when completing academic activities that seem to be bored. Based on these definitions of boredom and pilot data, items were developed and chosen for use in this study. The ABS- contained 42 items which asked directly about students' experience of boredom ("In that situation, to what extent did you get bored with the activity?"). The 42 items that were formulated represent various facets of boredom and related emotions (e.g. "*In that situation, to what extent did you feel it was repetitive?*", "*in that situation, to what extent did you become frustrated or annoyed?*"). A four-point Likert- rating scale ranging from 1 "Not at all" to 4 "Extremely" was used. Higher score indicate higher academic boredom.

Academic Motivation Scale (AMS)

Academic Motivation Scale (AMS) AMS was used to measure intrinsic motivation, extrinsic motivation and demotivation (Vallerand, Pelletier, Blais, Briere, Senecal, & Valleires, 1993). Intrinsic motivation consisted of 12 items, extrinsic motivation consisted of 12 items

and demotivation consisted of 4 items. Higher score indicate higher problem. This scale is measured in seven point likert scale. Reliability of the scale ranges from 0.70 to 0.79 (Kusurkar, Croiset, Kruitwagen, & Cate, 2010). The alpha reliability of this scale in this study was 0.87.

Procedures

The National Teachers' Institute, Kaduna is a single mode distance education institution dedicated to teacher training. It was established in 1976 by the Federal Government primarily because of the pressing needs in the country for trained and qualified teaching staff at all levels of the educational system.

Act No. 7 of 10th April 1978 establishing the Institute charged it among others with the responsibility of: ***providing courses of instruction leading to the development, upgrading and certification of teachers as specified in the relevant syllabus using distance education techniques.***

The vision of the Institute is to enhance the professional skills of serving teachers for high quality education delivery at primary and secondary education levels with a view to uplifting the standard of the education system of the country.

The mission statement of NTI includes upgrading/updating teacher's knowledge and skills in curriculum implementation while instilling in them the virtues of dedication, loyalty, commitment, discipline and resourcefulness.

The Institute's vision is supposed to be realized through the pursuit of the following goals:

- producing teachers trained and oriented to meet the challenges of twenty first century Nigerian society;
- nurturing a commitment to lifelong learning that is creative, innovative, and responsive to changes in the world of knowledge and the changing needs;
- designing and enriching subject content to ensure that the teacher-trainees attain a high level of mastery of the subject matter;
- building the capacity of teacher- trainees in the use of effective communication skills and relevant technologies for the delivery of quality education;
- strengthening the Institute's monitoring , evaluation and feedback mechanism to ensure effective and efficient service delivery;
- developing capacity for effective selection and deployment of relevant technology including Information and Communication Technology for effective Distance Learning delivery;
- establishing effective research capability in order to ensure that all the Institute's programmes are based on scientifically established grounds in terms of who needs training and the content of training required;
- reviewing and revitalizing in-service training and retraining programme for all categories of teachers, school administrators and school supervisors;
- regularly reviewing and restructuring curricula of all the Institute's programmes to bring them in line with changing realities;

With the lecturers' permission, the researcher administered the instruments to degree students at the beginning of class in their three centres in Osogbo. Students were told about the purpose of the study, voluntary nature of their participation, and confidentiality of their responses. The researcher instructed students to think of two academic situations which has

been constituting boredom for them. The researcher and her assistants then distributed the instruments to the respondents. The instruments were collected after filling them.

Method of Data Analysis

Data collected were analysed using the Pearson’s Product Moment Correlation Coefficient (PPMC) and Multiple Regression Analysis at 0.05 level of significance. Multiple regression analysis was used to find the combined and relative contribution of the independent variables on the dependent variable. PPMC was used to determine if the relationship between the variables were statistically significant.

6. RESULTS

Table 1. Descriptive Statistics and Correlation Matrix Showing the Relationship between Independent Variables among Respondents

Variables	1	2	3	4	5
Academic Boredom	1.000				
Anxiety	.609**	1.000			
Emotion	.342**	.061	1.000		
Motivation	.409**	.068	.224**	1.000	
Stress	.477**	.069	.159	.215	1.000

Table 2. Summary of Regression Analysis of the Joint Independent Variables on the Prediction of Academic Boredom.

R = .375 R ² = .169 R ² (Adjusted) = .175 Standard Error of Estimate = 3.10965					
Analysis of Variance					
Source	Sum of Square (SS)	Df	Mean Square	F	Sig.
Regression	1396.101	3	465.367	47.891	.000
Residual	3002.166	306	9.811		
Total	4398.267	309	475.178		

Table 1 shows the descriptive statistics and intercorrelations among the study variables. The table indicates that academic boredom correlated with anxiety, motivation, emotion and stress. This implies that academic boredom is associated with emotions and aversive feelings in varying degrees.

Table 2 revealed there was a significant joint contribution prediction of independent variables to the prediction of the dependent variable (academic boredom) $F(3, 306) = 47.891$, $p < 0.05$. The table showed a coefficient of multiple correlations (R) of .375, and a multiple R square of .169 and adjusted R square of .175. Thus it could be deduced that 1.75% of the variance in academic boredom is accounted for by all the four prediction variables, when pulled together.

The significance of the composite contribution was tested at $p < 0.05$ using F-ratio at the degree of freedom ($df = 3/306$). The table also indicated that the analysis of variance for the regression yielded an F-ratio of 47.891 (significant at 0.05 levels). It implied that the joint contribution of the independent variables to the dependent variables was significant and that other variables not included in this model may have accounted for the remaining variance.

Table 3. Relative Contribution of the Independent Variables on Academic Boredom.

Model	Unstandardised Coefficient		Standard Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	3.515	.531		6.355	.000
Motivation	.143	.016	.397	10.071	.000
Stress	.031	.014	.089	2.191	.000
Anxiety	.029	.015	.084	1.317	.000
Emotions	.115	.013	.387	9.433	.000

Table 3 presented the result of the analysis on the relative contribution of the independent variables to dependent variable (academic boredom) expressed as beta weights using the standardised regression co-efficient to determine the relative contributions of the independent variables. Motivation ($\beta = .397$, $t = 10.071$, $p < 0.05$) ranked as the most potent contributor to academic boredom closely followed by emotions ($\beta = .387$, $t = 9.433$, $p < 0.05$) and stress ($\beta = .089$, $t = 2.191$, $p < 0.05$). Anxiety was ranked as the least contributor to academic boredom ($\beta = .084$, $t = 1.317$, $p < 0.05$). It therefore implied that motivation constituted a significant contributor to academic boredom among the university students of NTI. Other independent variables, emotions, stress and anxiety also made significant contributions to academic boredom at varying degrees.

7. DISCUSSION

The result obtained from the descriptive statistics and intercorrelations among the study variables in table one indicates that academic boredom correlated with anxiety, motivation, emotion and stress. This implies that there is a myriad of academic-related actions in which boredom can be aroused, such as listening to a lecture, working on an in-class writing task, conducting a hands-on experiment, preparing for a coming class, reading through class notes, and studying for examinations.

The result obtained from research question one support the proponent of O'Hanlon (1981) which indicated that boredom is a Bunique psycho -physiological state that comprises a set of interrelated emotional, motivational, and cognitive reactions having a common biological basis. In particular, the emotional component is a stressful state to overcome the typically low arousal state of being bored; the motivational component is referred to as high effort spent to maintain arousal; and the cognitive component is referred to as reduced attention due to a lower level of arousal.

It is observed that academic boredom is common among students at university. Most just shrug it off as a minor distraction. For those less fortunate, its effects are far from trivial and not to be underestimated. The truth of the matter is that students really do get bored at university. The Submission of Andreas Elpidorou, (2018) agree with findings of this study when he submitted that despite best intentions, and the range of new and innovative technologies increasingly at their disposal, university does not always provide the stimulation many undergraduates need to keep them fully engaged. Thus lecturers see boredom as too frequent even if they wouldn't care to admit it; drowsiness and yawning in class, heads resting in hands, bodies slouched in seats, vacant stares and the distractions which come from electronic devices are all fairly obvious clues.

Table 2 revealed that there was a significant joint contribution of independent variables to the prediction of the dependent variable (academic boredom). This result is not surprising considering the fact that boredom is a multi- component construct. Thus Pekrun et al. (2010) concur with the result obtained from this study as he expressed that boredom consists of specific affective components (unpleasant, aversive feelings), cognitive components (altered perceptions of time), physiological components (reduced arousal), expressive components (facial, vocal, and postural expression), and motivational components (motivation to change the activity or to leave the situation).

University students usually involve in two types of experiences—class-related boredom and boredom experienced while studying which could be related in part to learning environments, such as didactic and teacher-centered lecturing, and/or to cognitive appraisals of the situations, such as not finding meaning in studying. Thus, Pekrun et al. (2011) found a high correlation between class-related and learning-related boredom. His findings differ from that of this study because despite the strong correlation found in their study, learning-related boredom was negatively related with academic control, motivation, use of learning strategies, and achievement to a greater extent than was class-related boredom.

Table 3 which presented the result of the analysis on the relative contribution of the independent variables to dependent variable (academic boredom) expressed as beta weights using the standardised regression co-efficient to determine the relative contributions of the independent variables. Motivation ($\beta = .397$, $t = 10.071$, $p < 0.05$) ranked as the most potent contributor to academic boredom.

The implication of this is that students' motives, effort and engagement are characterized by incessant changes related to the impact of internal and external factors, which are intricately interconnected and are themselves subject to substantial variations.

The findings of this study corroborates the research findings of Pekrun et al (2012) on boredom in academic settings which has found negative correlations between boredom and motivation (study interest and effort), use of elaboration strategies, self-regulation, and academic achievement; and, positive correlations between boredom and irrelevant thinking and perceived external regulation by others. It follows therefore that academic boredom has been associated with high dropout rates and low academic achievement.

Boredom has been described “as a feeling of tedium, monotony, ennui, apathy, meaninglessness, emptiness, wearisomeness and lack of interest or connection with the current environment” and can be contrasted with emotions or states such as interest, enthusiasm, involvement, engagement, flow, and optimal stimulation.

8. CONCLUSION

Boredom is a negative emotion whereby one cannot meaningfully engage in a task, is unable to sustain required attention, and attributes an external environment as a cause of this aversive feeling. When people are in a negative emotional state, discouraged, or down, it causes attention problems. It is a known fact that when people are stressed it makes it harder to focus and pay attention at a very basic, fundamental level.

Like any type of stress, boredom hampers the prefrontal cortex, the brain area positioned just behind that student's furrowed brow that allows a student to reason and hold different facts in working memory. Further research involving academic boredom and learning analytics might yet unlock their considerable diagnostic potential for identifying those students most at risk of falling behind or dropping out completely as well as their general academic health and well-being.

Recommendations

Boredom is something individual needs to know more about. Boredom has been associated with plenty of negative outcomes, including low academic performance, high dropout rates, mistakes on the job, depression, anxiety and a lowered sense of life purpose. Even if it does not lead to these problems in most people, boredom plays a major role in people's lives, particularly if it is find that individual's work or time in the classroom is snooze-inducing. “Generating knowledge about boredom through research can help inform lecturers, researchers and stakeholders in education about how to design educational programmes, structure work environments, counsel clients and manage individual's day-to-day live events.

The results of this research can be used by policy makers and practitioners (such as educators, school counsellors, peer educators) to help identify university undergraduates who are likely to be at risk of experiencing high boredom. Understanding more about the contexts that are associated with high boredom can help the search for strategies to promote optimal adolescent development.

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