

Emerging Adults' Quest for Autonomy; Self-Regulation and Its Impacts on Students' Academic Productivity in State Universities in Cameroon

Ivo Nyoh Intong, Chiatoh Blasius

Abstract:

This study examined emerging adults' quest for autonomy; self-regulation as a factor on students' academic productivity in State Universities in Cameroon. A mixed research method and the explanatory design were used. The sample was made up of 624-year 2 master students of 8 faculties. In selecting respondents and study sites or faculties for the study, a multi-stage sampling technique (purposive, simple random and stratified sampling technique) was used. The instruments used for data collection were a closed ended questionnaire and an interview guide for students. The content validity index was 0.96 and the overall reliability of the instrument was 0.955. Data was analyzed quantitatively and qualitatively and descriptive (frequency counts, percentages) and inferential statistics (Chi-Square) were used to analyze quantitative data while qualitative data was analyzed using thematic analysis. Spearman rho test was used to establish the relationship between self-regulation and academic productivity of university students. The findings indicated that, majority of the emerging adults 95.1% with an overall mean of 3.56 on a scale of 1-4 have strong self-regulation while 4.9% do not. Furthermore, asking some of the emerging adults how self-control in relation to self-regulation impacted their academic productivity, many of them said self-control/regulation helps enhance their focus to studies, help guided their decisions, enable them to set priority, guided their actions, help them to make relevant choices, makes them becoming more conscious and study effectively. And, statistically, at df of 619, and confidence interval of 95, the r-critical value is 0.079 which is less than the calculated r-value of 0.136. By this, it implies that self-regulation significantly influences academic productivity of emerging adults (R- value = 0.136**, p-value 0.001 < 0.05). Therefore, the hypothesis that states self-regulation has a significant

influence on academic productivity of emerging adults was accepted. This encourages the active implementation of the student-centered approach to learning in which case the students' needs and interests are catered for, causing them to develop a sense of belonging, ownership and autonomy in their educational activities. Based on the findings, some recommendations were made to the effect that; students should develop resilience and targeted initiatives to support their career. High impact practices can support factors like socializing, connection with career choice, and closer collaboration with instructors or mentors. Also, students should be optimistic and develop realistic, meaningful, challenging and achievable goals that will help them develop a sense of direction and purpose. Such students perform well academically because they would be self-motivated learn.

INTRODUCTION

Productive young adults require different developmental tasks; forming independence in terms of decision making, creating an adult identity, accepting responsibility for decision making and pursuing education and/or vocational goals. Such students anticipate successful outcomes, have confidence in their social skills and anticipate successful social encounters. Those confident in their academic skills expect high marks on exams and expect the quality of their work to reap academic benefits. The opposite is true to those who lack confidence, often drop out of school, envision rejection or ridicule even before they establish social contact. It is therefore important that, young people acquire the necessary knowledge and skills needed to promote sustainable and productive development which propel them to be self-authored in their academics.

Smith & Wertlieb (2005) however shows that many students in the university often have unrealistic expectations about university life, and that their experiences often do not match their expectations as the reality for many students is that, university is accompanied by several unfamiliar and challenging experiences. Students encounter a more demanding workload, greater independence, and increased responsibility for managing their time, studies, self-care, and finances. Students often move away from their family home and live alone in university residence or off-campus housing to become autonomous, and this often disrupts their social networks and might as well affect their academic productivity. In addition, many students enter university/college at the age where they are leaving adolescence and entering emerging adulthood, a developmental period characterized by identity exploration, increased responsibility, and independent decision making (Arnett, 2000). Consequently, students who are transitioning from high school simultaneously experience an ecological and developmental transition when they begin university.

As a result of the multiple issues that accompany the transition to university, most students go through an adjustment period. For some students, this adjustment is extremely difficult as they face challenges while trying to adapt to new roles, new routines, and a new academic and social environment may lead to uncertainty about their ability to meet personal and family expectations, and the other requirements of their new life. The number of new challenges and the uncertainty about their ability to succeed in their new environment might negatively impact their social network which may lead to high levels of stress and anxiety and consequently low academic productivity. On the other hand, if students could adopt positive behaviours such as self-regulation, this might enhance their academic productivity.

Conceptually, autonomy is seen as presupposing a sense of agency, and to include the capacity to make decisions and to exercise control over important areas of one's life (Ryan & Deci, 2001). Autonomy is generally believed to be related to the development of a sense of self and as assisting in the construction of a personal identity (Moshman, 2005, Nucci, 2001). Autonomy does not mean the freedom to do whatever one wants to do or freedom from all constraints. Rather, autonomy involves making meaningful decisions on significant aspects of life (Kabeer, 1999). Individuals are

considered to be autonomous when they rely on their own judgment about how to act, and make decisions which cohere with their own values and personality and for which they are self-motivated. Such decisions result from reflective evaluation, beliefs, and a capacity that develops in contexts where people can be reasonably informed and well-educated and experience choice.

According to Mayseless & Keren (2014) autonomy is a key factor in a successful transition to adult life consisting of behaviors (individual capacity to act independently from others), cognitions (including self-efficacy, which empowers individuals to take action in different areas of their lives), and emotions (bonds built with others). However, a major developmental task during emerging adulthood is the quest for autonomy which is an undertaking that includes; becoming independent with regard to individual emotions, behavior, values, responsibilities and finances. Developing a sense of autonomy helps the emerging adult to enhance value-based decisions in preparation for adulthood.

It is made up of a set of skills and attitudes that include the ability to reason, to appreciate different points of view, and to debate with others. In order to do these things, the autonomous emerging adult must have a sense of self-worth and self-respect, self-beliefs, self-determined and self-initiative. Self-knowledge is also important, including a well-developed understanding of what matters to him or her (Deci and Ryan, 2016). All these skills are vital prerequisite to enable emerging adults become academically productive. Weinstein and Ryan (2010) state that the quest for autonomy refers to the notion that individuals experience themselves as having been generally free and self-congruent over time. It emphasizes the formation of life goals that guide emerging adults in ways that reflect their “inward forces” such as; ability to belief in themselves and take initiatives.

Based on these views, it is believed that, in order to feel fully autonomous individuals, need to satisfy specific components such as freedom (to be free from external and internal coercion or arbitrary limitation of options, and to be free to access, explore, express, and realize authentic to basic psychological needs (e.g., relatedness and competence), temperamental dispositions, interests, and talents (Assor, Roth & Deci, 2004). Deci and Ryan (2016) report that, learners need two components in order to develop autonomous capacities which includes; relatedness, and competence. Relatedness involves helping students relate learning to personal meaningful intrinsic goals in a caring and welcoming learning environment. Competence involves fostering students’ self-regulation or emotions to perform particular task.

In the same line, self-regulation refers to those processes; internal and/or transactional, that enables an individual to guide his/her goal-directed activities over time and across changing circumstances (contexts). Regulation implies modulation of thought, affect, behavior, or attention via deliberate or automated use of specific mechanisms and supportive meta skills. The processes of self-regulation are initiated when routinized activity is impeded or when goal-directedness is otherwise made salient (e.g. the appearance of a challenge, the failure of habitual action patterns, etc). The skills and abilities associated with self-authorship would not only help graduates succeed in academics and the workplace, but also to develop goals and build relationships that are more satisfying at work and at home (Pizzolato, 2006).

Hofmann, Baumeister, Forster and Vohs (2012) believe that, it emerges out of the interaction between desires and personal goals. It is also seen as an act of resisting the urge to satisfy desires or temptations, which ultimately allow individuals to pursue goals where individuals are motivated to satisfy desires, but it may also conflict with other goals. The conflict between the desire and personal goals gives reason to enact resistance over the desire. According to Shanker (2016) self-control is about inhibiting strong impulses and seen as a set of active and purposeful decisions and behaviors.

Adequate self-control in emerging adults is associated with a vast range of positive long-term outcomes, including physical and mental health, higher education levels, better career opportunities, and financial security (Duckworth, 2011). In turn, low self-control has been linked to problems in school or work functioning, experiences of psychological distress, and the development of mental health problems (Nedelec & Beaver, 2014). Understanding self-control development in youth is crucial not only for improving individuals' quality of life, but also for reducing social costs related to, for example, health care needs caused by low self-control (Nedelec & Beaver, 2014).

This is seen as skills to manage relationships, rather than being managed by them and would likely help graduates steer away from behaviors and decisions that would lead to negative outcomes, such as legal troubles or interpersonal conflict (Piper, 2006). Therefore, self-regulated graduates would let their internal beliefs and values guide their understanding of truth reflect on how their actions impact themselves and others, and see their individual decisions within a context of goals and situations larger than the one in which they find themselves at the moment (Pizzolato, 2006).

On the other hand, according to Ahlfeldt, Mehta and Sellnow (2005) academic productivity is linked to thriving completion of course work success and student's ability to overcome challenges and complete the courses they have to take to complete their degree. Therefore, successfully completing coursework is an important condition towards successful degree completion and should be studied as a means to promote students' academic success. It also measures students' goal directedness, investment of effort, regulation of their own learning, and use of time. According to Appleton, Christenson & Furlong (2008) having objective, appropriate emotional conditions, self-belief, volition, interest and satisfaction enhances students' academic productivity. It is extremely important to students as many of them are accustomed to achieving high grades.

It also measures students' commitment and investment in learning or school activities (Ahlfeldt, Mehta & Sellnow, 2005; Alrashidi, Phan & Ngu, 2016; Hart, Steward & Jimerson, 2011). It measures how much attention students pay to learning activities such as coming to class, submitting assignments, and listening to teachers' instructions (Hu & Ching, 2012). It also serves as a strong predictor of student learning and personal development (Carini, Kuh, & Klein, 2004; Murray, 2004). Academic productivity is significant in students' life as it represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university.

Therefore, to self-regulate, the individual must enact a proactive, self-directed process for attaining goals, learning skills, managing emotional reactions, and accomplishing tasks. According to Hoeksma, Oosterlaan & Schipper (2004) individuals who are academically self-regulated can carry out three particular academic tasks well; planning, problem solving, and self-evaluation (self-assessment). They also set relevant performance standards, creating strategies to attain goals and maintain the performance standards and monitoring their actions to make sure they are acting consistently with their goals and performance standards and adjusting their academic behavior based on this information.

Statement of Problem

Productive young adults require different developmental tasks; forming independence in terms of decision making, creating an adult identity, accepting responsibility for decision making and pursuing education and/or vocational goals. Such students anticipate successful outcomes, have confidence in their social skills and anticipate successful social encounters. Those confident in their academic skills expect high marks on exams and expect the quality of their work to reap academic benefits. The opposite is true to those who lack confidence. Young people who doubt their social skills often envision rejection or ridicule even before they establish social contact. It is therefore important that, young people acquire the necessary knowledge and skills needed to promote

sustainable and productive development which propel them to be self-authored, internally grounded in what they believe as true and worthy of pursuit. Those who lack confidence in their academic skills envision a low grade before they even begin an exam or enroll in a course.

It has been observed that, most students upon graduation lack the skills and knowledge vital to be productive in the twenty-first century as some of them are vastly unprepared for employment and cannot take initiative for themselves. Furthermore, according to a growing number of worries from some parents, employers and universities, many students leave the University ill-prepared and cannot adequately adapt to the community as some even get involve into drugs, and school dropout. Unproductive behaviour during emerging adulthood is related to greater levels of stress, including restrictions on socialization or the shrinking job market leading them to demonstrate depression. It is also common to find young people today still largely depending on their parents and other family members for livelihood of which it is believed that, during this period, emerging adults can earn a job or build a career for themselves while still schooling. Most of this un-civic behaviour might probably be due to lack of self-focus or self-regulated attitude on the part of the individual taking full responsibility of their own development. Hence, this study examined emerging adults' quest for autonomy; self-regulation and its impacts on students' academic productivity in State Universities in Cameroon.

Specific Objective

Specifically, the study seeks to examine the extent to which self-regulation influences academic productivity of emerging adults.

Specific Research Question

To what extent does self-regulation affect academic productivity of emerging adults?

Specific Hypotheses

- **Ho:** Self-regulation has no significant impact on academic productivity of emerging adults
- **Ha:** Self-regulation has a significant impact on academic productivity of emerging adults.

Significance of the Study

The research findings will be significant to the following; counsellors, teachers, parents, students, and the government.

The findings of this study will provide school counsellors with knowledge to understand that emerging adulthood is a time of risk and this subgroup of adults are especially vulnerable and need special support to ensure that they will manage the transition to adulthood well. The findings will help school counsellors to develop effective guidance and counselling services to help students study effectively. Also, this study will help counsellors to orientate students as they engage in their career endeavour.

The findings of this study will guide the government especially the Ministry of Higher Education to devise strategies to assist students as they quest for their autonomy these can be done through scholarships and providing counselling services to assist students in difficulties. Furthermore, this study will assist government through the Ministry of Higher Education in designing school programs that will give students the necessary skills that will gain them employment immediately after training and this could be done through workshops and seminars.

Furthermore, the findings of this study will be of significance to students of higher institute of learning as it will identify and expose to the students the issues that affect their academic productivity as they quest for autonomy.

To researchers, this work will act as a spring board for other researchers to investigate the concepts of emerging adults' autonomy and academic productivity. It will therefore act as a base material for future research in this field.

LITERATURE REVIEW

Concept of Emerging Adulthood

Emerging adulthood is a relatively new developmental concept seen predominantly in modern, post-industrial societies marked by great diversity in terms of relationships, family, education, employment and residential dynamics (Arnett, 2015). Emerging adults are at a distinctive stage of development characterized by both a myriad of opportunities for growth and change, as well as life-impacting problems (Bergman, Kelly, Nargiso & McKowen, 2016). This period of growth from adolescence to adulthood is an important time of life in its own right and is also significant because it sets the stage for later adult life.

The concept of emerging adulthood can be traced in the first half of the twentieth century, then stretched out and got individualized during the latter part of the century. Arnett & Taber (1994) first introduced the term “emerging adulthood” in the article “Adolescence Terminable and Interminable: When Does Adolescence End”? They saw it as the period between the time individuals consider themselves “to have begun the transition to adulthood” and the time when they consider themselves to be fully adult cognitively, emotionally and behaviorally. From his own research with Americans in their twenties, Arnett (2000) found that the preeminent criteria for emerging adulthood was accepting responsibility for one's self, followed by independent decision making and financial independence.

At the beginning of the 21st century, Arnett (2000) proposed a new developmental stage, emerging adulthood (in the age group ranging from 18 to 29), arguing that this stage is distinct from the periods of adolescence. To Arnett, emerging adulthood is seen as an extension of Erikson's (1968) psychosocial moratorium, a period during which individuals are free to explore and experiment with potential identity alternatives (Castillo, Schwartz, Zamboangaet, 2013). During this stage, young peoples' world perspectives are challenged as they are exposed to diverse settings and views.

Arnett (1994, 1997, 1998, 2000, 2001, 2003 & 2007) being the main proponent of this developmental stage, reiterated that, this stage is the time of life which begins from the late teens through the mid-twenties, with a focus on ages 18-25. This period is characterized by frequent change as various possibilities in love, work and worldviews are explored. Essentially, this is a time when individuals would likely consider themselves too old to be adolescents, but not yet full-fledged adults. Hence, this often makes them to explore a variety of possible life directions in love, work, and worldviews autonomously (Arnett, 2007).

According to Jensen, Arnett & McKenzie (2011) emerging adulthood encompasses 5 main dimensions/main features which includes; age of instability (an exceptionally full and intense period of life but also an exceptionally unstable one), age of feeling in between (neither adolescent nor adult), time of self-focus (individual does not really have to answer to others), age of possibilities (when hopes flourish, when people have an unparalleled opportunity to transform their lives), and identity formation.

Concept of Autonomy

There have been challenges in adequately defining and operationalizing the term autonomy (Vansteenkiste & Beyers, 2013). To address these challenges, Vansteenkiste and colleagues (2013) explored the construct on two distinct dimensions: 1) independence (i.e., behaving, deciding, and thinking without relying on others) and, 2) volition (i.e., acting upon personal interests, values, and goals). Also, Hertz (1996) believes that, the term autonomy is derived from the Greek words autos

(self) and nomos (rule) that is, reference to self-rule or self-governance. This involves being one's own person or being able to act according to one's beliefs or desires without interference that are characterized by the presence of freedom, rationality, and consistency with one's own preferences. Also, it includes a wide range of meanings that includes qualities such as; self-rule, self-determination, freedom of will, dignity, integrity, individuality, independence, self-knowledge, self-assertion, critical reflection, responsibility, absence of external causation, and knowledge of one's own interest. These are all qualities that propel emerging adults to become academically productive.

Autonomy is a complex socio-cognitive system, manifested in different degrees of independence and control of one's own learning process, involving capacities, abilities, attitudes, willingness, decision making, choices, planning, actions, and assessment of individual goals. Autonomy is generally believed to be related to the development of a sense of self and as assisting in the construction of a personal identity (Moshman, 2005, Nucci, 2001). The notion of the self stands at the center of the discussion on the concept of autonomy which is define as a system of processes, such as volition, self-efficacy, self-determination, self-regulation, and self-direction (Beck, 2002; Ryan and Deci, 2017). As emerging adults' quest for autonomy, these processes enhance them to become academic productive. It is typically seen as presupposing a sense of agency which includes the capacity to make decisions and to exercise control over important areas of one's life (Ryan & Deci, 2001).

According to Prunkl (2002) autonomy is a notoriously complex concept, but it generally can be taken to refer to a person's effective capacity for self-governance. This means that the individual can act on the basis of beliefs, values, motivations, and reasons that are in some relevant sense their own. There are at least two fundamental aspects to this definition, each pointing to a different set of conditions that need to be fulfilled for a person (or action) to count as autonomous; authenticity which includes beliefs, values, motivations, and reasons held by a person are in a relevant sense authentic to that person, i.e. not the product of external manipulative or distorting influences. The second aspect is agency that is, the person is able to act on their beliefs and values they hold. This implies that, they have meaningful options available to them, allowing them to make choices that are of practical importance to their life.

Concept of Academic productivity

The term productivity encompasses, an economic construct which involves; efficiency, output, motivation, performance, effectiveness, profitability, competitiveness, and quality (Buckley, Pass & Prescott (1988). However, in an academic perspective, it refers to how much attention students pay to learning activities such as coming to class, submitting assignments, and listening to teachers' instructions (Shernoff, Csikszentmihalyi, Shneider & Shernoff (2003). It serves as a strong predictor of student learning and personal development. An evaluation of students' academic productivity is necessary for teachers as it can assist in resolving students' learning difficulties (Levin, 2013). According to Fredricks, Blumenfeld & Paris (2004), a student's continuous engagement in learning serves as a factor predicting learning achievement at all levels. That means it is required to improve students' learning engagement at different levels.

Alrashidi & Ngu (2016). believes that, academic productivity can be measured by student commitment, investment, and attitudes toward school and school activities and relates to factors that are necessary for learning. That means that, academic productivity happens if students have positive attitudes toward learning activities, and they have good communication with teachers. Garette & Dussauge (2000) believes that the term is comprised of active participations in learning process, such as the ability to understand lessons, being attentive to learning, involving in cooperative learning, having eye communication-thinking-questioning, having idea exchange, being curious to know, seeking-interaction-analysis, as well as making time-efforts. It involves students' behaviors such as; participation in discussion with classmates, participation in class activities, asking

questions, making comments, debating, and discussing on a particular learning problem, both inside and outside of classroom with classmates and teachers, as well as submitting assignments. Similarly, Johnson (2016) explain that academic productivity is associated with learner's interactions with different educational components, such as community, school staff, classmates, teachers, and curriculum.

Finlay, 2006 and Fredricks (2003) posited three interrelated domains that are related to academic productivity: emotional, behavioral, and cognitive productivity. Emotional productivity refers to students' attachment to their teachers and peers, as well as their feelings about academics and school in general. Behavioral engagement includes students' positive conduct, such as effort, persistence, concentration, attention, and contributions in class (Fredricks, 2004). While cognitive productivity comprises both motivation and learning strategies (Fredricks, 2004). Motivation includes students' investment in their learning, as well as an intrinsic desire to learn and master the material. Students who are cognitively engaged are able to self-monitor and evaluate their learning strategies.

Self-regulation as a factor of Students Academic Productivity

According to Schunk & Ertmer (2000) despite an absence of paradigmatic consensus on the definition of self-regulation, the following multi-element definition can be offered as a conceptual roadmap and organizational for self-regulation; Self-regulation refers to those processes; internal and/or transactional, that enable an individual to guide his/her goal-directed activities over time and across changing circumstances (contexts). Regulation implies modulation of thought, affect, behavior, or attention via deliberate or automated use of specific mechanisms and supportive meta skills. The processes of self-regulation are initiated when routinized activity is impeded or when goal-directedness is otherwise made salient (e.g. the appearance of a challenge, the failure of habitual action patterns, etc).

Berger, Kofman, Livneh, U & Henik (2007) describe self-regulation as 'the ability to monitor and modulate cognition, emotion, and behaviour, to accomplish one's goals and/or to adapt to the cognitive and social demands of specific situations. This definition encompasses all aspects of regulatory behaviours, and importantly, includes both motivational and adaptive elements in conjunction with environmental influences. Comprehensive assessment of self-regulation in humans requires measures related to cognition, emotion, and behaviour, in addition to individual factors such as specific executive function, temperament and cognitive ability; and with attention given to environmental influences such as aspects of our culture. It is a multi-faceted construct that concerns goal-directed behaviors, which aid individuals in everyday life and in achieving long-term goals. It is believed to progress in a hierarchical fashion, in that simple cognitive functions are integrated into more complex functions across development (Rusch, Steixner-Kumar, Doshi, Spezio & Gläscher, 2020).

Many different terms have been used to describe the concept of self-regulation which is often considered as one's ability to manage emotions, impulses, and behavior. These include "willpower" (allowing one's internal strength to control urges), "grit", "self-control", "executive control", "effortful control" and "self-management". Figure 2 presents a graphical representation of self-regulation as an umbrella term according to Berger (2011) that encompasses many constructs that may be used to describe similar skills and processes.

The executive functions are a collection of individual but interrelated psychological processes involved in the intentional management of action and thoughts that contribute to cognitive performance, behaviour, emotional expression, and social relations (Aylward, 2005). These individual processes include: planning, strategy use, cognitive flexibility, management of attention, inhibitory control, and the incorporation of feedback (Anderson, 2002; Aylward, 2005). The

development of executive function and self-regulatory capacities continues to expand and mature throughout human development, with progressions in the ability for planning, organization, and focused attention facilitating later success at school (Blair, 2000). Deficits in these areas in the presence of otherwise normal cognitive functioning may be a contributor to learning disorders (Blair & Granger, 2005). Executive dysfunction describes a range of impairments that have the capacity to interfere with effective adaptation to changing developmental demands for behavioural regulation, and the achievement of social and cognitive competency (Zelazo, 2005). These impairments—that is, impulsivity, poor planning, organizational and reasoning difficulties; problems with self-monitoring and strategic responses; perseveration, and limited working memory are frequently identified in emerging adults that are not autonomous in their actions.

Emotional regulation involves actively managing strong feelings and results in adaptive functioning in emotionally arousing situations. It requires skills that enable awareness and acceptance of feelings, recognizing physical and emotional cues of internal distress or dysregulation, tolerating distress, self-calming strategies such as taking a deep breath. Emotional regulation involves actively managing strong and unpleasant feelings and results in adaptive functioning in emotionally arousing situations. It requires awareness and understanding of feelings and involves self-calming strategies and tolerance or management of internal distress. It also supports empathy and compassion for self and others (Murray, Rosanbalm, Christopoulos & Hamoudi, 2015).

Effortful control is when an individual remembers rules and anticipates consequences so as to make positive behavior choices when experiencing frustration or anger. Effortful control (EC) is a temperamental self-regulatory capacity, defined as the efficiency of executive attention including the ability to inhibit a dominant response and/or to activate a subdominant response, to plan and to detect errors. It includes an attentional component (e.g., the ability to shift or focus attention when it is necessary) and a behavioral component (e.g., the ability to activate or inhibit behavior in accordance with the needs of the situation). Therefore, in general, among the measures of effortful control are included measures that assess attentional regulation (attentional shifting and attentional focusing) and/or behavioral regulation or inhibitory control (Eisenberg, Sadovsky, Spinrad, Fabes, Losoya, Valiente & Shepard, 2005).

Self-control is defined as the capacity to engage in voluntary actions to pursue valued distal goals over conflicting proximal urges. Self-control enables individuals to inhibit undesired actions, emotions, and cognitions and to strengthen desired ones for the sake of long-term adaptation. Self-control can help young adults to successfully adjust to these changes: individuals with high self-control are likely to develop fewer mental health problems and obtain higher education levels and socioeconomic status than individuals with low self-control (Fujita, 2011).

Hofmann, Baumeister, Forster and Vohs (2012) believe that, it emerges out of the interaction between desires and personal goals. It is also seen as an act of resisting the urge to satisfy desires or temptations, which ultimately allow individuals to pursue goals where individuals are motivated to satisfy desires, but it may also conflict with other goals. The conflict between the desire and personal goals gives reason to enact resistance over the desire. According to Shanker (2016) self-control is about inhibiting strong impulses and seen as a set of active and purposeful decisions and behaviors.

Adequate self-control in emerging adults is associated with a vast range of positive long-term outcomes, including physical and mental health, higher education levels, better career opportunities, and financial security (Duckworth, Grant, Loew, Oettingen & Gollwitzer, 2011). In turn, low self-control has been linked to problems in school or work functioning, experiences of psychological distress, and the development of mental health problems (Nedelec & Beaver, 2014). Understanding self-control development in youth is crucial not only for improving individuals' quality of life, but

also for reducing social costs related to, for example, health care needs caused by low self-control (Nedelec & Beaver, 2014).

As emerging adults' quest for autonomy, the concept of self-regulation becomes very vital as supported by Fryer & Elliot (2012) who believe that, academically self-regulated students take time to plan, set academic goals and consider whether the goals are relevant, valuable, interesting, and achievable. Once they set a goal, these students are motivated to achieve the goal often acting autonomously to do so. They exert effort, feel confident, and expect to succeed and also engage while learning and persist at tasks until they are completed. Self-regulated youth view their goal as a target or destination which they can use the goal to prioritize tasks, and decide where to direct their attention. They know how to use time frames to schedule and pace their academic activities (Bandura & Cervone, 2001).

Therefore, effective self-regulation requires learning goals, a sense of self-efficacy (perceived competence) for learning, and positive attributions that enhance self-efficacy and motivation. It can therefore affirm that, self-regulation is a vital process that allows young people to behave adequately, carry out tasks properly, and abstain from activities that may be harmful to them (Baumeister & Heatherton, 2006). Young people often use it in a number of ways including such as; regulation of emotions, thoughts, and actions for physical or behavioral control or restraint. Latham & Locke (2004) reiterates that, self-regulation has a significant role in health as well as in success, whether academic or work-related. This means that, in the quest of autonomy, once young people can regulate themselves in the face of adversities, this will enhance their overall wellbeing which will sustain the process of academic productivity.

Theoretical Review

Theory of Self-Authorship Development by Baxter Magolda (2001)

In the context of her theory of learning partnerships, Baxter Magolda defines self-authorship as the capacity to internally define a coherent belief system and identity that coordinates engagement in mutual relations with the larger world. As Baxter Magolda (1998) engaged her participants regarding the developmental experiences in their lives, she identified similarities in their journey toward self-authorship. Baxter Magolda observed that, self-authored individuals become mindful of their abilities and skills to define knowledge and make decisions according to their internal beliefs and goals, able to consider multiple perspectives, able to give reasons or cite evidence in support of new ideas, and able to balance and maintain relationship with others. In line with these observations, Baxter Magolda, and confirmed that, self-authored individuals demonstrate such 'capacities' including; an internal set of beliefs that guide decision making about knowledge claims, an internal identity that enables them to express themselves in socially constructing knowledge with others, and the capacity to engage in mutually interdependent relationships to assess others' expertise.

The road to self-authorship-where an individual's internal voice emerges and asserts its authority begins with cognitive dissonance, perhaps even existential crisis that challenges the individual's assumptions about the self, social relationships, and the world. Baxter Magolda refers to such experiences of dissonance as "provocative moments." Achieving desired college learning outcomes such as critical thinking, cultural competence, and moral and ethical judgment depends on where students are on the journey to self-authorship. Baxter Magolda believes that, students who are not yet able to author their inner psychological lives often allow their external influence to derail their academic goals, jeopardize their identity development, or ruin their relationships. She also found that, her participants demonstrated an increasing commitment to an "internal voice" in response to the interrelated questions of "Who am I?" "How do I know?" and "What relationships do I want to have with others?" Based on the changing nature of individuals' responses to their annual

interviews, Baxter Magolda found four distinct phases of self-authorship development: following external formulas, the crossroads, becoming the author of one's own life, and internal foundations.

In the first phase, following external formulas, individuals seek to accommodate the expectations and demands of others. At this stage of development, many young people's career plans reflect their reliance on external formulas, having been provided by parents, siblings, mentors, or older students. Individuals are able to develop their own responses to challenges and to reason autonomously, but may become insecure absent external validation and approval. External formula followers may use language that reflects their control over their lives, their commitment to a unique identity, and their independence, but only as mimics, emulating the behaviors of self-authored others.

Such language may also reveal a desire to portray the externally defined image of adulthood. She believes that, students rely on external formulas to fit in and that, the characteristics of this phase were well suited for achieving short-term social goals, particularly for individuals who felt different from their peers. The priority in this phase is not to identify the best course of action or perspective, but to discern the course of action or perspective that is advocated by trusted individuals or authorities. This practice of relying on such a circumscribed circle of acquaintances for career information and other advice, as opposed to trained professionals, poses many challenges for emerging adults as they quest for their autonomy. Following external formulas makes individuals vulnerable to buying into stereotypes, even stereotypes linking to one's own culture limiting their ability to engage with diverse others.

Individuals shift from following external formulas into the crossroads as they recognize the inadequacy of reliance on the advice, expectations, and demands of others. Recognition may follow negative experiences, such as the derailment of career paths, failed relationships, a lack of fulfillment despite faithful adherence to external formulas for success, or exposure to conflicting but mutually compelling perspectives and values. The crossroads is defined by the realized need for internal sources of belief and definition. Faced with competing external interests, parental expectations, or unfulfilling career prospects, individuals recognize the need to assert themselves, to develop the means to manage these challenges rather than be managed by them. However, individuals in this phase lacking the internal mechanism to consider these challenges from an internal perspective, may adopt defeatist attitudes or turn inward, hiding their desire to act and reason in ways that honour their internal perspective.

Baxter Magolda suggests that, individuals may practice self-authorship cognitively but continue to rely on third-order consciousness in their interactions and behaviors, individuals in the crossroads begin to recognize their ability to articulate their own beliefs, and to make knowledge claims, but may lack the confidence to consistently assert their emerging internal voice into their behavior and relationships. These individuals decide when and how to act on their perceptions and beliefs based primarily on their assessment of how others would respond. For individuals at the crossroads, all that is standing between them and self-authorship is the decision to commit to their internal voice. This decision comes following what is called the provocative moment. Described by Baxter Magolda as the gateway to self-authorship, the individual's commitment to an internal voice indicates the experience of a provocative moment. The provocative moment results from the "jarring disequilibrium" experienced as external formulas fail to satisfy. In order to identify relationships between students' experience of a provocative moment and personal or situational factors, she established a relationship between individuals' refusal to follow unsatisfactory external formulas, and their subsequent attempt to discover new options and to develop their internal voice. Rejection of external formulas, such as parental expectations, unwanted romantic relationships, and the plan for school and career success allow individuals to look inward, their heart, their pride, and their independence. Once individuals committed to their internal voice, they began to author their own lives.

As individuals enter the third phase, becoming the author of one's Life, they begin to assert their internal voice in everyday life, take a more active role in constructing knowledge and managing relationships, and develop a more complex awareness of their sense of self. This is a phase of changes, as individuals renegotiate existing relationships and take new approaches to their work and careers. Magolda proposes a new-found awareness of their world and their reasoning processes. This awareness allows them to manage their world rather than be managed by it. For instance, Baxter Magolda describes young people at this stage as redoubling of their effort in the face of obstacles that might have daunted them in the past, exploring their faith in personal ways as opposed to going through the motions, and being intentional about assuming new family roles as they recognized their subservience to their family's needs and expectations. Hence, students' emerging internal voice compelled them to give back to their community and serve others, suggesting a total commitment to their beliefs and values.

These behaviors reveal the individuals' commitment to developing an internal system for making meaning of oneself, relations with others, and knowledge. She states that, in the process of working toward more gratifying outcomes, individuals place increasing emphasis on incorporating self-knowledge and goals in their meaning making. In this instance, the individual has makes up his own mind about the issue. Individuals in this stage describe his opinion as being rooted in deep feelings on the issue. However, the individual frame his position not in terms of values and beliefs, but in terms of historical and cultural precedence. This, too, is an aspect of becoming the author of one's Life. Individuals in this phase may not have enough confidence to assert their internal voice on its own merits, an indicator that the convictions are in their heads rather than in their hearts.

The integration of cognitive complexity with the development of a more complex understanding of self provides the internal foundation on which to make decisions, manage dissonance, and understand one's identity. Individuals' internal voices, which tend to take the form of confidence in one's reasoning, skill in the previous phase, or authority, become belief systems more adaptable to external realities. Individuals becoming the author of one's life might commit to a self-authored position, but through logic and reasoning. Having Internal foundations allows individuals to articulate the core values or beliefs that drive their behavior, using simple language rooted not in financial factors, timing, and precedent, but in terms of feelings, vision, and being able to tell which decision is right. The internal foundation led a sense of peace, and to the confidence and to make decisions that might not be popular or respected by family members, friends, or coworkers. Therefore, as students' quest for autonomy, their ability to confront social pressure in the pursuit of their college aspirations is made possible only by the confidence in their internally defined beliefs, values, and goals.

In this final phase of self-authorship development, individuals employ the same commitment to the internal voice as in the becoming the author of one's life phase, but with the ability to manage and embrace uncertainty, divergent perspectives, and ambiguity. Baxter Magolda describes this as the individuals' acceptance of life as it unfolds. Such acceptance led not to complacency, however, but to more confident engagement in careers, relationships, and their world. In the process of becoming authors of their own lives, individual realize that, they could not control the external world; rather they could control how they made meaning of the external world.

However, having an internal foundation do not reduce decisions to instinctive, or "gut" reactions, but rather it allows for the careful consideration of how the opinions and needs of others fit, conflicted, or undermined established beliefs and values. Individuals in this stage are those whose internal voice guides their construction of knowledge, exploration of self, and relations with others, and who welcome new perspectives, but will reject the safety of following external formulas, but confident of their ability to manage the ambiguity and challenge of adult life. Such is the achievement of self-authorship.

As a critique of this theory, while Kegan (1994) and Baxter Magolda (1998, 2001) suggest that individuals who demonstrate self-authorship will not regress to earlier phases, some research contradicts this suggestion. Pizzolato (2004), for instance, found that, faced with sufficient “external hostility toward outward expression of their internal foundations, individuals can abandon their internal voice in favor of more immediately gratifying external formulas. In addition, Torres and Hernandez (2007) postulate that there is evidence that, individuals can progress to the next phase in one of the three domains, while lagging behind in the others.

This theory is relevant to this study in that, it is seen as a central goal of students in higher education in the 21st century. In terms of the dimensions of self-authorship, the desirable 21st century learning outcomes entails students to be responsible in their learning while taking responsibilities in terms of cognitive maturity (epistemological dimension), viewing knowledge as contextual, or as constructed using relevant evidence in a particular context. This is a necessary ingredient for achieving academic outcomes; integrated identity (intrapersonal dimension) the ability to reflect upon, explore, and choose enduring values; and mature relationships (interpersonal dimension); respect for both one’s own and others’ particular cultures, productive collaboration to negotiate and integrate multiple perspectives and needs. This theory lays the foundation in that, it requires complexity in defining one’s belief system, a coherent identity, and mutual relations learning outcomes to promote self-authorship through multi-contextual analysis-college education, graduate education, employment, community and personal life and their influence on the development of self-authorship.

Self-Regulation Theory by Zimmerman (2000)

Self-regulation theory (SRT) by Zimmerman is a system of conscious personal management that involves the process of guiding one’s own thoughts, behaviors and feelings to reach goals. According to Zimmerman, self-regulation consists of several stages and individuals must function as contributors to their own motivation, behavior and development within a network of reciprocally interacting influences. Human behavior and learning is regulated through internal and external influences. Zimmerman’s cyclical model has served as a theoretical foundation for students to evaluate learners’ self-regulatory processes within academic, non-academic and naturalistic settings.

To him, self-regulation is the ability to develop control over one’s thoughts, feelings, cognition, motivation and actions within the external environment. This social cognitive view suggests that SRT is a social process that is influenced by personal (e.g., control over one’s own thoughts, feelings, motivation and actions), behavioral (e.g., skills, practice, self-efficacy), and environmental factors (e.g., social norms, influence on others, access in community) in a reciprocal fashion. It is a cyclical process in which learners set their goals, use different strategies to achieve their goals, and monitor and evaluate their performances. Overall, it encourages students to take responsibility of learning by employing metacognitive, motivated, and strategic actions (Zimmerman, 2002).

He views the structure of self-regulatory processes in terms of three cyclical phases which includes; The forethought phase refers to processes and beliefs that occur before efforts to learn; the performance phase refers to processes that occur during behavioral implementation, and self-reflection refers to processes that occur after each learning effort. Over the past years, Zimmerman has focused their efforts on applying self-regulation to the academic achievement challenges faced by many underprepared high school and college students. The theory incorporates advances in cognitive science to help teachers engage their students more fully in the learning process. The theory portrays when students become engaged, they take greater responsibility for their learning, and their academic performance improves. Zimmerman’s theory makes use of an ongoing series of feedback cycles that consists of three phases as shown in the figure, and the function of each process are described as follows;

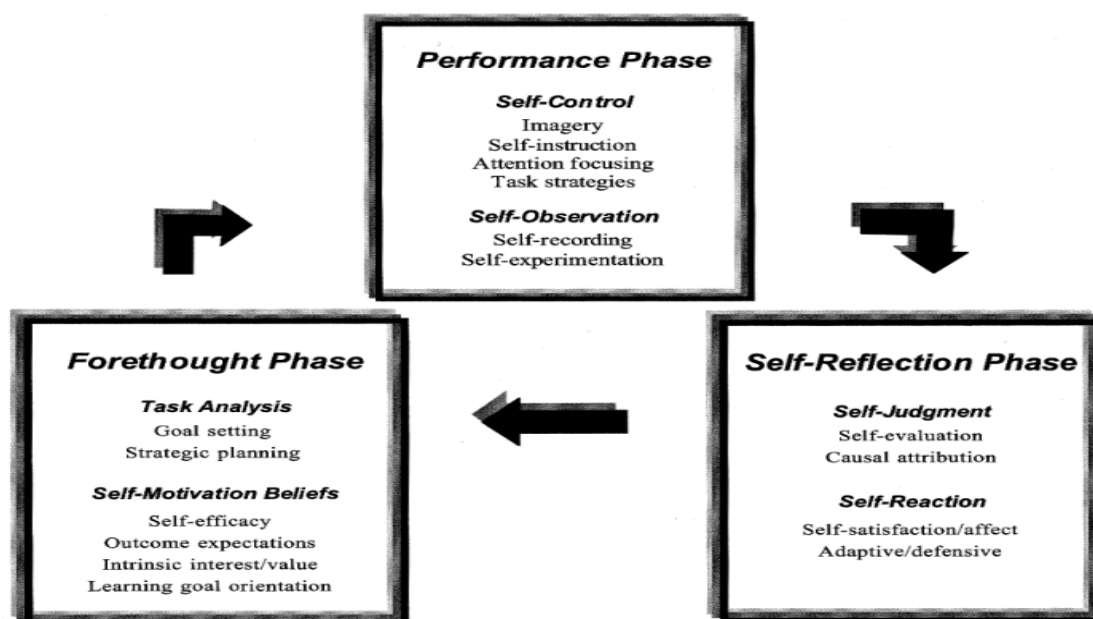


Figure 1. Phases and Sub processes of Self-Regulation

During the forethought phase, learners set their learning goals which involve task analysis and self-motivation. During this phase, students learn to more accurately assess their academic situation and choose strategies that best address a specific learning challenge. They also set achievable short and long-term goals. They make specific goals for learning and make a strategic plan to achieve their goals. There are two major classes of forethought phase processes: task analysis and self-motivation. Task analysis involves goal setting and strategic planning. There is considerable evidence of increased academic success by learners who set specific proximal goals for themselves. Self-motivation stems from students' beliefs about learning, such as self-efficacy beliefs about having the personal capability to learn and outcome expectations about personal consequences of learning. Intrinsic interest refers to the students' valuing of the task skill for its own merits, and learning goal orientation refers to valuing the process of learning for its own merits.

The performance control phase emphasizes self-monitoring of performance by the learners. In this phase, learners implement the plans which were formulated in the forethought phase. Performance phase includes self-control and self-observation. Self-control has sub-processes including self-instruction, imagery, attention focusing and task strategies. Whereas, self-observation involves self-recording of personal events or self-experimentation to find out the cause of these events

The self-reflection phase highlights an engagement in self-reflection after performance. There are two forms of self-reflection phase processes: self-judgment and self-reaction. One form of self-judgment, self-evaluation, refers to comparisons of self-observed performances against some standard, such as one's prior performance, another person's performance, or an absolute standard of performance. Another form of self-judgment involves causal attribution, which refers to beliefs about the cause of one's errors or successes. One form of self-reaction involves feelings of self-satisfaction and positive effect regarding one's performance. Increases in self-satisfaction enhance motivation, whereas decreases in self-satisfaction undermine further efforts to learn. Self-reactions also take the form of adaptive/defensive responses. Defensive reactions refer to efforts to protect one's self-image by withdrawing or avoiding opportunities to learn and perform, such as dropping a course. In contrast, adaptive reactions refer to adjustments designed to increase the effectiveness of one's method of learning, such as discarding or modifying an ineffective learning strategy.

According to Zimmerman (2000) this view of self-regulation is cyclical in that, self-reflections from prior efforts to learn affect sub-sequent forethought processes (e.g., self-dissatisfaction will lead to

lower levels of self-efficacy and diminished effort during subsequent learning). He believes that, learners' use of forethought, performance, and self-reflection phase processes enhance their fulfillment of purpose. For example, students who set specific proximal goals, are more likely to self-observe their performance in these areas, more likely to achieve in the target area, and will display higher levels of self-efficacy than students who do not set goals.

He also stated that, experts display significantly higher levels of self-regulatory processes during practice efforts than novices. The self-regulation profile of novices is very distinctive from that of experts. Novices fail to engage in high-quality forethought and instead attempt to self-regulate their learning reactively. That is, they fail to set specific goals or to self-monitor systematically, and as a result, they tend to rely on comparisons with the performance of others to judge their learning effectiveness. Because typically other learners are also progressing, their performance represents a constantly increasing criterion of success that is very difficult to surpass.

Furthermore, learners who make comparative self-evaluations are prompted to attribute causation to ability deficiencies (which are also normative in nature), and this will produce lower personal satisfaction and prompt defensive reactions. In contrast, the self-regulation profile of experts reveals they display high levels of self-motivation and set hierarchical goals for themselves with process goals leading to outcome goals in succession. Experts plan learning efforts using powerful strategies and self-observe their effects, such as a visual organizer for filling in key information. They self-evaluate their performance against their personal goals rather than other learners' performance, and they make strategy (or method) attributions instead of ability attributions. This leads to greater personal satisfaction with their learning progress and further efforts to improve their performance. Together these self-reactions enhance various self-motivational beliefs of experts, such as self-efficacy, outcome expectations, learning goal orientation, and intrinsic interest.

This theory is relevant to this study because of several reasons. First, the theory in itself is comprehensive and covers majority of the key processes that are relevant for understanding students' self-regulatory behaviors. It offers explicit definitions of the underlying self-regulatory processes within each of its three general phases and further elaborates on how different processes interact. All these processes enhance emerging adults as they quest for autonomy. Consequently, it has been employed in academic (e.g., preparing for an exam, problem solving) and non-academic (e.g. health, and work) settings within varied contexts. Furthermore, the theory explains in detail how students' cognitive processing operates while planning, performing and evaluating a task. A crucial aspect is the use of criteria and standards to set goals, monitor and evaluate their academic objectives. It also describes how students constantly monitor their activities against standards and use tactics to perform tasks in their quest for autonomy. Hence, Zimmerman's theory has demonstrated that, the greatest academic productivity occurs when students use skills to guide learning and instruction, or one that entails planning, evaluation, and adjustment of thoughts and actions.

Empirical Review

According to a study by Li, Ye, Tang, Zhou & Hu (2018) intended to search for the best self-regulated learning strategies and inefficient strategies for Chinese students in elementary and secondary school, and analyzed the critical phases of self-regulated learning according to Zimmerman's theory. The moderating effects of gender, grade, and publication year were also analyzed. Empirical studies which conducted in real teaching situations of elementary and secondary education were systematically searched using Chinese academic databases. Studies focused on undergraduate students, students of special education, or online learning environments were excluded. Fifty-five cross-sectional studies and four intervention studies (which generated 264 independent samples) were included with a total sample size of 23,497 participants. Random effects model was chosen in the current meta-analysis, and publication bias was also examined. The results

indicated that the overall effect size of self-regulated learning on academic achievement was small for primary and secondary school students in China. The effect sizes of self-efficacy, task strategies, and self-evaluation were relatively higher than other strategies. Self-regulated learning strategies have the largest effect size on science disciplines (including mathematics and physics). Performance phase and self-reflection phase are key phases of self-regulated learning.

Another study by Ejubovic & Puška (2019) on the impact of self-regulated learning on academic performance and satisfaction of students in the online environment. The concept of self-regulation hasn't been researched enough in Bosnia and Herzegovina (B&H) and hence this study represents an important milestone in understanding this concept in this context. The conducted research was initiated with the presupposition that self-regulation had a positive impact on satisfaction and academic performance of students. In order to prove the goals of the research, two main hypotheses were formulated. The results of the exploratory factor analysis (EFA) have shown that the statements within self-regulation are grouped into five factors: goal-setting, metacognition, environment structuring, computer self-efficacy and social dimension. Multiple regression analysis proved that 4 of 5 factors have a positive impact on satisfaction and academic performance of students. Only goal-setting yielded no significance on the two aforementioned variables, while remaining four factors showed a significant influence on students' satisfaction and academic performance.

METHODS

Research Design

This study adopted a mixed method approach which involves quantitative and qualitative technique that is, the explanatory sequential design was used to examine the topic under investigation. The researcher adopted this approach in order to gain in-depth understanding from the multiple sources of information during the data collection process. This was done through the use of designed structured questionnaire as well as interviews. Interview and structured questions asked, lead to more probing to enable the researcher get the subjective opinion of the respondents thus getting to the root of the problem.

As posited by Monyatsi (2002) the advantage of integrating the two approaches maintains a balance since qualitative research is strong in depth, while quantitative research can be extended to a larger population. The two methods are not mutually exclusive, but complimentary. Furthermore, the mixed method approach was suitable because while the quantitative approach was used to measure the relevance of self-regulation on emerging adult's academic productivity, the qualitative approach was used to elicit the opinion of emerging adults on the importance of self-regulation.

Population of the Study

The population of the study is that entity to which the findings could be generalized and from which the sample would be taken. It is made up of potential persons from whom data could be collected and it consists of target, and accessible. Therefore, the population of this study was made up of all the masters students in 8 state Universities in Cameroon which constituted 44618 students. This population was chosen because, the researcher wanted to have an in-depth opinion about the topic under investigation and also, majority of emerging adults are found in this level of higher institution of learning. Hence, the researcher needed varied opinions of the respondents.

Target population

The target population of this study was made up of 23749 year 2 masters students from the 8 states universities which includes; 3318 students from the university of Bamenda, 4152 from the University of Buea, 7108 from the university of Douala, 1601 university of Dschang, 1101 university of Maroua, 2629 university of Ngoundere, 3840 university of Yaoundé 1 and 5571

university of Yaoundé 2. Masters' students were targeted in that, most of the students in this level are in their mid-twenties and thirties and could best understand the concept under investigation.

Sample and Sampling Technique

The sample of this study was derived from the accessible population of the study and the sample size consisted of 624 year 2 masters students in the selected programs of the State Universities. This sample size was chosen proportionately based on the Krejcie and Morgan table. As for the qualitative data, 10 students' leaders were randomly selected from the University of Buea.

Table 1: List of sample Size

	Area	Faculty/Schools	Number of Students	
	Institution			Sample Size
1	University of Buea	College of Technology	84	70
2	University of Bamenda	Higher Institute of Transport and logistics	35	32
3	University of Douala	Institute of Fine Arts	126	92
4	University of Dschang	Faculty of Agronomy	130	97
5	University of Maroua	Institute of Mines and Petroleum	145	103
6	University of Ngoundere	College of Technology	251	150
7	University of Yaounde I	Institute of Technology	79	66
8	University of Yaounde II	Institute of Demographic Studies	18	14
	Total		868	624

Sampling Technique

The main sampling techniques adopted for this study included, the probability sampling technique, specifically the simple random sampling technique which was used to select 8 departments in each of these universities. This afforded every faculty an equal chance of being selected for the study. A proportionate stratified sampling technique was then used to get the number of students to participate per faculty and per level. This technique was used to ensure that, the sample size of each faculty and by level of study was proportionate to the population size of the faculty when viewed against the entire population. The accidental/ convenient/opportunity sampling technique was adopted in choosing the students to participate in the study since this technique consisted of taking the sample from people who were available at the time the study was carried out to fit the criteria the researcher was looking for.

Instrument used for Data Collection

The instruments that were used for data collection were; the questionnaire and the interview guide. This is because, the study adopted the sequential explanatory research design whereby both quantitative and qualitative techniques were used in the study to examine the topic under investigation.

Questionnaire

A questionnaire was used to collect data for this study. The questionnaire was formulated by the researcher in consultation with the supervisor and the statistician who went through item by item, where irrelevant items were discarded. This questionnaire was based on emerging adulthood quest of autonomy and academic productivity. The questionnaire was used for data collection because it is less time consuming, it is less expensive and can be appropriately used to collect the desired data from the sample. At the beginning of the questionnaire, there is an introductory note stating the research topic and the purpose of the questionnaire. In this note, the researcher ended by thanking the respondents for the time spared to provide responses to the questions, and promised to keep their responses confidential and use them strictly for research purposes.

This instrument was specially designed for students and was made up of six sections (A, B, C, D, E and F). Section A consisting of ten items demanding the demographic data of the respondents and all the sections consisted of close ended questions representing the concept of autonomy of the four specific objectives of the independent variable and the dependent variable. Sections A to F contained ten items each that are directed towards the verification of the specific hypotheses and the answering of the specific research questions.

The items were close – ended, with likert– type response options ranging from strongly agree (SA) to strongly disagree (SD). The likert-type close-ended items were used because of the ease of responding and the short time required responding. A four-scale response option of strongly Agree (SA), Agree (A), Disagree (D), strongly disagree (SD) according to the likert scale used, assigned weights of 4,3,2, and 1 for positive items and 1,2,3, and 4 for negative items. The respondents were required to indicate their degree of agreement with a tick (✓) on the appropriate answer of their choice. The questionnaire was made up of 58 items. All of which is close-ended for the students to fill and the items were stated as follows;

Interview Guide

Also, an interview guide was used to sample the opinion of some students based on the research question under investigation which will be made of 4 open-ended questions. An interview guide will be used by the researcher to guide questioning for qualitative analysis. Luma (1996) says an interview guide is made up of oral questions asked by one person (the interviewer) to another or others (interviewee(s)), with a view of extracting facts from the respondent(s). The interview guide consisted of questions that required the respondents' explanation of their ideas for an in-depth understanding of their responses and it entails 5 items on the research questions.

Validity and of Instruments

Mugenda and Mugenda (2003) contend that a major concern in research is the validity of the procedures and conclusions. In this light, the instrument for data collection of this study was validated considering the construct, content and face validity, and the reliability. After drafting and constructing the instrument, it was reviewed by the student. Some typing errors were discovered and corrected. The instruments were again reviewed by the supervisor, some lecturers, peers and the statistician. Inconsistencies and typographic errors were noticed and were corrected, readjusted, modified and handed to some faculty staff for appraisal. After taking a look at the items, they were adjusted, formatted to meet the required specifications in terms of quality, size, style, and visibility and then reprinted. The supervisor then finally looked at the instrument and some visible errors found were corrected to give the instrument the proper outlook. The main issues scrutinized for the face validity concerned the physical presentation of the instruments, structure of the various sections, visibility of contents and general presentation of the instruments.

Content validity involves confidence that items comprising the measuring instrument are representative of the field which they intend to serve. In order to enhance content validity, the instrument was subjected for scrutiny by the supervisor and the statistician. This was done by the supervisor and the statistician by evaluating the content of questions based on their relevance to variables and stated objectives as well on the demographic characteristics. They were evaluated to see if they measure what they were intended to measure so as to give results that could stand the test of objectivity and reliability. Modifications were made and items were found to have a match between content of instruments and objectives after further scrutiny. Construct validity made sure that conceptual definitions of the study concepts or theories are in line with the operational definitions of variables or study indicators. The supervisor reviewed the draft questionnaire and ensured that the language was adequate and understandable, and much more important that the

concept or terminology used met the standard, were unambiguous and really fit the theoretical and operational perspective of the study.

Method of Data Analysis

The data collected from the field was first processed using EPiData 3.1 whereby, all the participants' responses were keyed, in accordance with each of the test items. During this process of data entering, the demographic information and the test items were coded with numbers to facilitate the data entering and the questionnaires were also be assigned with serial numbers. The reason for coding and assigning each questionnaire a serial number was to ensure that on the data base, one should easily trace the individual responses of participants and to carry out any verification in areas of uncertainty if arise. After the data were completely entered for all the participants, the data based were exported to SPSS version 25 for further consistency, data range and validation checks with the purpose to first identify invalid codes (data cleaning) with the aid of exploratory statistics.

After the data were thoroughly checked for possible errors, the quantitative data were analyzed using the descriptive and inferential statistical tools. The descriptive statistical tools used are frequency count, percentages and multiple responses set which aimed at calculating the summary of findings for each variable for a quick comprehension of the overall findings. To test the hypotheses of the study, the Spearman's rho test was used because the data for the variables were not approximately normally distributed based on the statistics of the test of normality assumption trend of the data. The testing for normality assumption of every data is very important in order to avoid committing the type 1 or 2 hypothesis errors thereby, using the right test.

On the other, the qualitative data derived from open ended questions were analyzed using the thematic analysis approach with the aid of themes, and quotations. The themes refer to the umbrella words which capture the main idea of the participants' statements and the quotations are the direct words from the participants while quotations are the direct words from the participants. Finally, findings were presented using frequency distribution and thematic tables and on charts with all inferential statistics presented at 95% level of confidence interval with alpha set at 0.05 levels, accepting 5% margin of error.

Ethical Considerations

Ethics in research are norms for conduct that distinguish between acceptable and unacceptable behaviour of researchers. Educational researchers need to be sensitive to ethical principles because of their research topic, face-to-face interactive data collection and emergent design and reciprocity with participants. The research was conducted according to the ethical guidelines proposed by the University of Buea in their thesis guide line for research on informed consent, voluntary participation and confidentiality. The University of Buea, Faculty of Education granted approval for the research project prior to data collection by issuing an introductory letter to be presented at the research sites. In light of the above, ethical measure was observed throughout the investigation and issues addressed in the cover letter attached to each research instrument. In the case of interviews, the researcher explained to the subjects.

Prior to administering the instruments, the researcher read out the information on the consent form which introduced the purpose and reason for the study and contained guarantees of confidentiality was attached to each instrument. In addition, the subjects were also informed (in the cover letter) that their participation was voluntary and could be withdrawn at any time without consequences in any shape or form. In this respect, each participant gave his or her permission to be observed, interviewed or to fill out the questionnaire. Following the clarification, participants were given the option to discontinue participation if they so desired. All those that took part in the investigation were given assurance of full confidentiality and anonymity as required in research involving human subjects. According to Maseko (2002), researchers are ethically obliged to maintain a healthy

relationship with each participant. The researcher respected this principle in the course of conducting this study among other things, posing no physical, emotional, intellectual or social threat to the respondents' privacy. For example, participants were informed not to mention their names during the process of completing questionnaires. The use of offensive, discriminatory, or other unacceptable language was totally avoided in the formulation of Questionnaire and Interview guide questions.

PRESENTATION OF FINDINGS

Demographic Data

Data were successfully collected from 621 emerging adults of Master's degree second year students giving a returned rate of 99.5%. The findings were presented based on the specific research questions that guided the study as stated in chapter one and hypotheses tested. All statistics were presented at 95% confidence interval with error margin set at 0.05.

Table: 2 Distribution of Emerging Adults by Demographic Data

Demographic data		Frequency	Percentage
Gender	Male	346	55.7
	Female	275	44.3
Age range	21-25	222	35.8
	26-30	227	36.6
	31-35	172	27.7
Marital status	Married	38	6.1
	Single	167	26.9
	Divorced	21	3.4
	Courtship	395	63.6
Employment status	Full time	52	8.4
	Part time	238	38.3
	Entrepreneur (Own a small business)	254	40.9
	None	77	12.4
Main financial support	Financial Aid-Loan	10	1.6
	Financial Aid-Scholarship	35	5.6
	Family	339	54.6
	Self-sustaining	237	38.2
Extracurricular activities within the community	Church activities	169	27.2
	Volunteerism in NGO	314	50.6
	Club activities	112	18.0
	Volunteerism in civic activities	6	1.0
	Other community activities	20	3.2
Socioeconomic status	Low	292	47.0
	Moderate	322	51.9
	High	7	1.1
Current GPA/Average on a scale of 4	Below 2.0	0	0
	2.0 to 2.4	0	0
	2.5 to 2.9	53	8.5
	3.0 to 3.5	434	69.9
	Above 3.5	134	21.6

The table shows that, among the 621 emerging adults' sample, 55.7% (346) were male and 44.3% (275) female. Age wise, 35.8% (222) of respondents were within the age range of 21-25, 36.6%

(227) of respondents were within the age range of 26-30, and 27.7% (172) within the age range of 31-35. Based on marital status, 6.1% (38) were married, 26.9% (167) single, 3.4% (21) were divorced and 63.6% (395) were into courtship. With reference to employment status, 8.4% (52) were full time employed, 38.3% (238) part time employed, 40.9% (254) owned a small business (entrepreneur) and 12.4% (77) not doing anything except studies. Based on financial support, 54.6% (339) of the students get finances from their family, 38.2% (237) from self-sustaining activity, while a few of them 7.2% (45) are on financial aid loan/scholarship. Based on extracurricular activities involve in the community, 50.6% (314) were doing volunteerism in NGOs, 27.2% (169) are involved in church activities, 18.0% (112) into club activities and 1.0% (6) involve in other activities in the community. Based on socio-economic status, that for 51.9% (322) of the students is moderate, low for 47.0% (292) of the students while only 1.1% (7) came from background with high socio-economic status. Finally, based on GPA/Class average after it was converted on a scale of 4 for those whose class average is on 20, none of them had a GPA below 2.5 while majority of them 69.9% (434) fall within the range of 3.0 to 3.5 and 21.6% (134) have GPA of above 3.5.

Findings by Research Questions

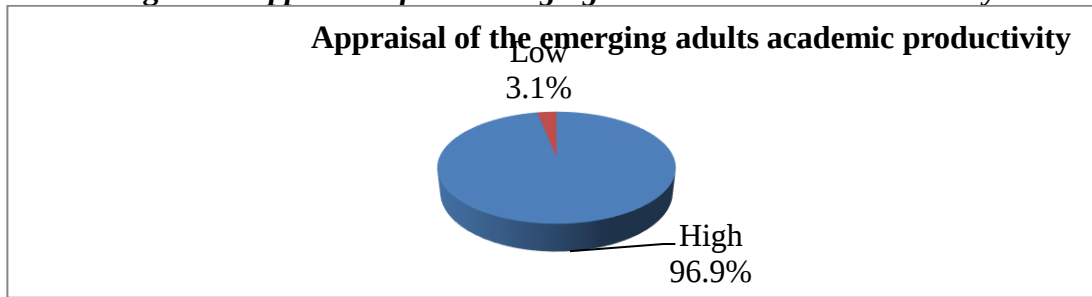
The presentation of the findings started first with the dependent variable (students' academic productivity) before the independent variables that constitute the objective of the study. The findings were presented using frequency, percentages and mean with a cut-off point set 2.5 on a scale of 1-4.

Students' Academic Productivity

Table: 3 Appraisal of the Emerging Adults Academic Productivity

Statements	Stretched				Collapsed		Mean	Decision
	SA	A	D	SD	SA/A	D/SD		
I am active in school activities	309 (49.8%)	284 (45.7%)	26 (4.2%)	2 (0.3%)	593 (95.5%)	28 (4.5%)	3.45	A
I usually past in my courses	369 (59.4%)	221 (35.6%)	27 (4.3%)	4 (0.6%)	590 (95.0%)	31 (5.0%)	3.54	A
I am engaged in research work	388 (62.5%)	202 (32.5%)	27 (4.3%)	4 (0.6%)	590 (95.0%)	31 (5.0%)	3.57	A
I have competency skills	421 (67.8%)	168 (27.1%)	30 (4.8%)	2 (0.3%)	589 (94.8%)	32 (5.2%)	3.63	A
I always finish my school task on time	442 (71.2%)	166 (26.7%)	8 (1.3%)	5 (0.8%)	608 (97.9%)	13 (2.1%)	3.69	A
I always have good grade	452 (72.8%)	154 (24.8%)	12 (1.9%)	3 (0.5%)	606 (97.6%)	15 (2.4%)	3.70	A
I easily network with others	463 (74.6%)	145 (23.3%)	10 (1.6%)	3 (0.5%)	608 (97.9%)	13 (2.1%)	3.73	A
I always listen to teachers' instructions	453 (72.9%)	156 (25.1%)	10 (1.6%)	2 (0.3%)	609 (98.1%)	12 (1.9%)	3.71	A
I always submit my assignments	474 (76.3%)	135 (21.7%)	10 (1.6%)	2 (0.3%)	609 (98.1%)	12 (1.9%)	3.75	A
I always attend classes	522 (84.1%)	93 (15.0%)	4 (0.6%)	2 (0.3%)	615 (99.0%)	6 (1.0%)	3.83	A
Multiple Responses Set	4293 (69.1%)	1724 (27.8%)	164 (2.6%)	29 (0.5%)	6017 (96.9%)	193 (3.1%)	3.66	A

Figure: 2 Appraisal of the Emerging Adults Academic Productivity



Based on emerging adults' academic productivity, in aggregate, 96.9% of them with an overall mean of 3.66 on a scale of 1-4 indicate that academic productivity is high while 3.1% said is low. Specifically, majority of respondents 99.0% (615) agreed to always attend classes. Also, 98.1% (609) of respondents agreed to always listen to instruction and do assignments. Similarly, 97.9% (608) of respondents agreed to always finish their school task on time, and easily network with others. In the same trend, majority of respondents 97.6% (606) indicate that they always have good grade. Furthermore, majority of respondents 95.5% (593) agreed to be very active in class with 95.0% (590) of students agreed to always past their courses and engage in research work. Finally, 94.8% (589) of respondents agreed to have competency skills.

Table: 4 Distribution of Academic Productivity of the Emerging Adults Demographic Information

Demographic data			Academic productivity		Total based on MRS
			High	Low	
Gender	Male	n	3402	58	3460
		%	98.3%	1.7%	
	Female	n	2615	135	2750
		%	95.1%	4.9%	
Age range	21-25	n	2164	56	2220
		%	97.5%	2.5%	
	26-30	n	2202	68	2270
		%	97.0%	3.0%	
	31-35	n	1651	69	1720
		%	96.0%	4.0%	
Marital status	Married	n	372	8	380
		%	97.9%	2.1%	
	Single	n	1615	55	1670
		%	96.7%	3.3%	
	Divorced	n	206	4	210
		%	98.1%	1.9%	
	Courtship	n	3824	126	3950
		%	96.8%	3.2%	
Employment status	Full time	n	516	4	520
		%	99.2%	0.8%	
	Part time	n	2330	50	2380
		%	97.9%	2.1%	
	Entrepreneur (Own a small business)	n	2442	98	2540
		%	96.1%	3.9%	
	None	n	729	41	770
		%	94.7%	5.3%	

Main financial support	Financial Aid	n	450	0	450
		%	100%	0.0%	
	Family	n	3233	157	3390
		%	95.4%	4.6%	
	Self-sustaining	n	2334	36	2370
		%	98.5%	1.5%	
Socioeconomic status	Low	n	2832	78	2910
		%	97.3%	2.7%	
	Moderate	n	3105	115	3220
		%	96.4%	3.6%	
	High	n	70	0	70
		%	100%	0.0%	

Distributing the emerging adults' academic productivity by demographic information, it was observed that irrespective of sex, age range, marital status, employment status, main financial support and socioeconomic status, majority of them with percentage ranging from 95.1% to 100% score high in their academic productivity. In other words, despite the demographic data of the emerging adults, they do not significantly differ in their academic performance.

How does self-regulation affect academic productivity of emerging adults?

Table 5: Appraisal of Emerging Adults Self-regulation

Statements	Stretched				Collapsed		Mean	Decision
	SA	A	D	SD	SA/A	D/SD		
I have self-control	275 (44.4%)	298 (48.1%)	42 (6.8%)	4 (0.6%)	573 (92.6%)	46 (7.4%)	3.36	A
I cope easily when I face failures	338 (54.6%)	250 (40.4%)	25 (4.0%)	6 (1.0%)	588 (95.0%)	31 (5.0%)	3.49	A
I easily relate with others	365 (59.0%)	221 (35.7%)	26 (4.2%)	7 (1.1%)	586 (94.7%)	33 (5.3%)	3.53	A
I set high goals about myself	396 (64.0%)	203 (32.8%)	15 (2.4%)	5 (0.8%)	599 (96.8%)	20 (3.2%)	3.60	A
I monitor my activities when I engage in any task	402 (64.9%)	193 (31.2%)	21 (3.4%)	3 (0.5%)	595 (96.1%)	24 (3.9%)	3.61	A
I evaluate my academic progress	408 (65.7%)	191 (30.9%)	18 (2.9%)	2 (0.3%)	599 (96.8%)	20 (3.2%)	3.62	A
I plan my activities on time	422 (68.2%)	171 (27.6%)	19 (3.1%)	7 (1.1%)	593 (95.8%)	26 (4.2%)	3.63	A
I easily manage my emotions when in pain	415 (67.0%)	172 (27.8%)	28 (4.5%)	4 (0.6%)	587 (94.8%)	32 (5.2%)	3.61	A
I am aware of the emotions of others	619 (64.9%)	180 (29.1%)	29 (4.7%)	8 (1.3%)	582 (94.0%)	37 (6.0%)	3.58	A
I easily solve my problems	402 (64.9%)	182 (29.4%)	29 (4.7%)	6 (1.0%)	584 (94.3%)	35 (5.7%)	3.58	A
Multiple Responses Set	3825 (61.8%)	2061 (33.3%)	252 (4.1%)	52 (0.8%)	5886 (95.1%)	304 (4.9%)	3.56	A

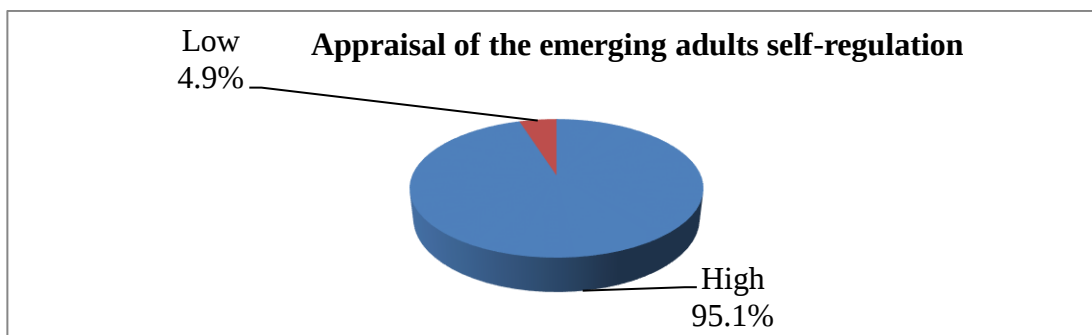


Figure 9: Appraisal of Emerging Adults Self-regulation

With respect to self-regulation, in aggregate, majority of the emerging adults 95.1% with an overall mean of 3.56 on a scale of 1-4 have strong self-regulation while 4.9% do not. Specifically, majority of the emerging adults 96.8% (599) evaluate their academic progress and self-high goals for themselves while 3.2% (20) do not. Similarly, 95.8% (593) plan activities on time while 4.2% (32) do not. Furthermore, 95.0% (588) of the emerging adults cope easily when face with failure while 5.0% (31) do not. Also, 94.8% (587) agreed to easily manage emotions when in pains while 5.2% (32) do not. Similarly, 94.7% (586) of the emerging adults relate easily with others while 5.3% (33) are unable. Also, 94.0% (582) agreed to have awareness of others emotion while 6.0% (37) do not. Finally, 92.6% (573) agreed to have self-control while 7.4% (46) do not.

Table 6: Distribution of Emerging Adults Self-regulation by Demographic Information

Demographic data			Self-regulation		Total based on MRS
			Strong	Weak	
Gender	Male	n	3305	155	3460
		%	95.5%	4.5%	
	Female	n	2581	149	2730
		%	94.5%	5.5%	
Age range	21-25	n	2107	93	2200
		%	95.8%	4.2%	
	26-30	n	2182	88	2270
		%	96.1%	3.9%	
	31-35	n	1597	123	1720
		%	92.8%	7.2%	
Marital status	Married	n	376	4	380
		%	98.9%	1.1%	
	Single	n	1565	105	1670
		%	93.7%	6.3%	
	Divorced	n	198	12	210
		%	94.3%	5.7%	
	Courtship	n	3747	183	3930
		%	95.3%	4.7%	
Employment status	Full time	n	510	10	520
		%	98.1%	1.9%	
	Part time	n	2264	96	2360
		%	95.9%	4.1%	
	Entrepreneur (Own a small business)	n	2418	122	2540
		%	95.2%	4.8%	
	None	n	694	76	770
		%	90.1%	9.9%	

Main financial support	Financial Aid	n	440	10	450
		%	97.8%	2.2%	
	Family	n	3185	205	3390
		%	94.0%	6.0%	
	Self-sustaining	n	2261	89	2350
		%	96.2%	3.8%	
Socioeconomic status	Low	n	2713	197	2910
		%	93.2%	6.8%	
	Moderate	n	3093	107	3200
		%	96.7%	3.3%	
	High	n	70	0	70
		%	100%	0.0%	

Distributing the emerging adults' self-regulation by demographic information, it was equally observed that irrespective of sex, age range, marital status, employment status, main financial support and socioeconomic status, majority of the emerging adults with percentage ranging from 92.8% to 100% have a strong self-regulation. In other words, despite the demographic data of the emerging adults, they do not significantly differ in their self-regulation.

Table 7: The Emerging Adults Opinion on How Adequate Self Control Relation to Self-regulation Impact their Academic Productivity

Themes	Quotations
Enhance focus	"I have self-control which has helped me to stay focused". "Self-control gives me directives in life". "Self-control guides me to study". "Self-control gives me focus". "I pay attention only to the things I have self-control".
Guide decision	"Self-control guides my decisions". "Self-control makes me choose things wisely". "Controlling my self help me to make right decisions". "My self-control guides me".
Set priority	"Self-control makes me to prioritize my activities". "Self-control guides me only on the relevant stuff". "Self-control guides me to do only the relevant activities". "Self-control helps me to prioritize". "Self-control makes me do only important things".
Actions	"Self-control guides my actions". "This is because self-control guides my actions".
Make relevant choice	"Self-control makes me to choose only relevant things".
Consciousness	"Self-control gives me consciousness".
Study effectively	"With self-control, I study effectively".

Furthermore, asking some of the emerging adults how self-control in relation to self-regulation impact their academic productivity, many of them said self-control/regulation help enhance their focus to studies as depicted in the statements "*I have self-control which has helped me to stay focused*", "*Self-control gives me directives in life*", "*Self-control guides me to study*". Furthermore, many also said self-control help guided their decisions as depicted in the statements "*Self-control guides my decisions*", "*Self-control makes me choose things wisely*", "*Controlling my self help me to make right decisions*". Furthermore, many also add self-control enable them to set priority as narrated in the statements "*Self-control makes me to prioritize my activities*", "*Self-control guides*

me only on the relevant stuff’, ‘Self-control guides me to do only the relevant activities’. Finally, some of the respondents said self-control guided their actions, help them to make relevant choices, makes them becoming more conscious and study effectively.

Table 8: The Emerging Adults Opinion on How they are Managing their Social Life and School Activities

Themes	Quotations
Strive for balance	“I balance the two’. “I balance them together”. “I blend them both”. “I give equal balance”. “Balancing by giving equal time”. “I give equal balance”. “I balance the two”. “I study effectively and also equally give time to my social life’.
Proper time management	“I make sure I properly manage my time to handle both activities”. “I manage my time well to blend both activities”.

Furthermore, in regulation to self-regulation, asking some of the emerging adults how they do manage both their social life and school activities, many of them said they strive for balance as depicted in the statements “*I balance them together*”, “*I blend them both*”, “*I give equal balance*”, “*Balancing by giving equal time*”. Finally, some said they properly manages their time to be engage in both activities as they narrated “*I make sure I properly manage my time to handle both activities*”, “*I manage my time well to blend both activities*”.

Table 9: The Emerging Adults Opinion on How Good Mastery Impact their Academic Productivity

Themes	Quotations
Enhance focus	“Mastery of my life gives me the guarantee to study”. “Mastery of my self gives directives”. “When I master myself, I know of what to do’. “Mastery of my academic life makes me more focused’.
Enhanced study	“The mastery of my self helps me to study effectively”. “Mastering my environment guide my steps to succeed’. “With good mastery, I study effectively”. ‘When I master myself, I study easily”.
Ensure success	“I pay more attention to the things I master which makes me succeed”. “Having a good mastery of myself makes me very active in studies and thus success”. “When I master myself, I become more successful”.
Attainment of life goals	“When I master myself, I make life goals”.
Right choice	“Mastery of my environment helps me to make right choices”.
Overcome challenges	“Good mastery helps me to easily identify challenges and overcome them”.
Understand self properly	“Mastery helps me to understand my strength and weaknesses”.

Also, asking the emerging adults how good environmental mastery impact their academic productivity, many said good environmental mastery enhanced their focus to study as narrated “Mastery of my life gives me the guarantee to study”, “Mastery of my self gives directives”, “When I master myself, I know of what to do’. Also, many said good environmental mastery enhanced their study as narrated in the statements “*The mastery of my self helps me to study effectively*”,

“Mastering my environment guide my steps to succeed”, “With good mastery, I study effectively”. Furthermore, some of the respondents said good environmental ensure their success as explained by some *“I pay more attention to the things I master which makes me succeed”, “Having a good mastery of myself makes me very active in studies and thus success”.* Finally, some of the emerging adults said good environmental mastery enable them attain their goals, make the right choices, identify and overcome challenges and help them to understand their self properly (strengths and weaknesses).

Verification of Hypothesis Three

Ho: Self-regulation has no significant influence on academic productivity of emerging adults

Ha: Self-regulation has a significant influence on academic productivity of emerging adults.

Table 10: Perceived Influence of Self-regulation on Academic Productivity of Emerging Adults

Test	Statistical parameter	Self-regulation	Academic productivity of emerging adults
Spearman's rho	R-value	1	.136**
	p-value	.	.001
	N	621	621

****.** Correlation is significant at the 0.01 level (2-tailed), at d.f 619, cl of 95, r-critical value is 0.079

Statistically, at df of 619, and confidence interval of 95, the r-critical value is 0.079 which is less than the calculated r-value of 0.136. By this, it implies that self-regulation significantly influences academic productivity of emerging adults (R- value = 0.136** , p-value 0.001 < 0.05). The positive sign of the correlation value implies that academic productivity of the emerging adults with increase in self-regulation. Therefore, the hypothesis that states self-regulation has a significant influence on academic productivity of emerging adults was accepted.

DISCUSSION OF FINDINGS

Self-regulation and students' academic productivity

This research objective intended to examine the extent to which self-regulation affects student academic productivity. Findings showed that there is a significant, positive and strong relationship between self-regulation and academic productivity of students. The positive sign of the correlation coefficient implies that academic productivity significantly increases with increase in self-regulation. Also, the strong positive sign of the correlation is an indication that students will be high achievers or perform well in their academics if they have high self-regulatory skills.

Furthermore, asking some of the emerging adults to explain how self-regulation impact their academic productivity, many of them said self-regulation helps enhance their focus to studies, plan, help guided their decisions, enable them to set priority, guided their actions or emotions, help them to make relevant choices, makes them becoming more conscious and study effectively. This finding is supported by Fugate (2004) who believes that, self-regulation fosters well-being and better able control anxiety-related events, cope with career changes, and directives of emerging adults. Hence, individuals with a strong sense of career identity (i.e., who have already established a salient career goal) are often motivated to actively create, adapt, and engage in activities that matched their career aspirations.

Also, this finding is alignment with the findings of Peverly, Brobst, Graham, Shaw (2003) who supported that, students who are self-regulated in learning, are individuals who have knowledge and strategic goals and have the independence to direct their abilities and emotions effectively. Based on the background conditions of most students, self-regulation is very appropriate and very important

for students to have especially for emerging adults who often enter the university with a lot of developmental challenges therefore, students who are self-regulated are expected to have the ability to solve problems in their academic endeavor and adequately adapt in their learning environment despite adversities.

Moreover, the findings of this study equally revealed that students see difficult tasks as challenges to be mastered, and not to avoid, take initiative to overcome difficult situations. This is in congruence with Bandura (1991) who asserted that people with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided. Such an efficacious outlook fosters intrinsic interest and deep engrossment in activities. Bandura added that self-regulated individuals set themselves challenging goals and maintain strong commitment to them; heighten and sustain their efforts in the face of failure; quickly recover their sense of focus after failures or setbacks; attribute failure to insufficient effort or deficient knowledge and skills which are acquirable; approach threatening situations with assurance that they can exercise control over them and such an efficacious outlook produces personal accomplishments, reduces stress and lowers vulnerability to depression.

Also, the finding of this study has been theorized by self-regulation theory by Zimmerman (2000). To Zimmerman, self-regulation is the ability to develop control over one's thoughts, feelings, cognition, motivation and actions within the external environment. This social cognitive view suggests that it is a social process that is influenced by personal (e.g., control over one's own thoughts, feelings, motivation and actions) in a reciprocal fashion. It is a cyclical process in which learners set their goals, use different strategies to achieve their goals, and monitor and evaluate their performances. Overall, it encourages students to take responsibility of their learning by employing metacognitive, motivated, and strategic actions. Therefore, such students plan learning efforts using powerful strategies and self-observe their effects, such as a visual organizer for filling in key information. They self-evaluate their performance against their personal goals rather than other learners' performance, and they make strategy (or method) attributions instead of ability attributions. This leads to greater personal satisfaction with their learning progress and further efforts to improve their performance. Together these self-reactions enhance various self-motivational beliefs outcome expectations, learning goal orientation, and intrinsic interest.

Self-regulation is desirable because of the effects that it has on educational and behavioral outcomes. The use of Self-regulation techniques are a way to actively engage otherwise passive students in their academic instruction. Students need to view learning as an activity that they do for themselves in a proactive manner, rather than viewing learning as a covert event that happens to them as a result of instruction. Allowing students to take a more active role in their education puts students in the driver's seat and in charge. Hence, the findings show that, most of the self-regulation components were related to the academic productivity components. These findings are consistent with other reviews as pointed out. In explaining this, one can point out that students who used more self-regulating strategies were successful in the future planning as well as balancing their emotions in their studies.

Students with better cognitive self-regulation can have better educational performance by managing their emotions and emotional influences. They also have a great motivation to study and can plan their academic activities effectively. In other words, the higher the individual's self-regulation, the better he plans his academic activities. Also, in explaining this finding, one can say that self-regulation can empower a person to plan and target in the future and can achieve many successes. We can point out that these individuals have the ability to internally direct attention, behavior, and emotions in order to reach their goals and respond to external needs, internal environment, and academic endeavours.

Recommendation

Based on the findings and considering the importance it placed on the academic productivity of students, the following recommendations are required for students to successfully engage in learning;

- Students are encouraged to pay attention to how they perceived the learning environment. The faculty members and educational staff in universities and centers of higher education are expected to create a student-center atmosphere and challenging classroom as well as have right expectations of the students. This will motivate the students to perceive their learning environment as friendly.
- Teachers need to use self-regulatory strategies more often in their classrooms and spread the knowledge about the value of the use of these strategies to students in the learning process. They should provide guidance for students on their individual and collaborative attempts at strategy use. In order for teachers to acquire sufficient knowledge to design these skills during the learning process, they need proper training as well. Developing in-service teacher training programs promoting the use of self-regulatory strategies would certainly contribute to students' life-long productiveness, achievement, and well-being.
- Students should develop resilience and targeted initiatives to support their career. Initiatives to support students could include developing networks that allow them opportunities for early involvement in high impact practices, such as attending seminars, research projects or internships. High impact practices can support factors like socializing, connection with career choice, and closer collaboration with instructors or mentors.
- Also, students should be optimistic and develop realistic, meaningful, challenging and achievable goals that will help them develop a sense of direction and purpose. Such students perform well academically because they would be self-motivated learn.

Suggestions for Further Study

This study should be replicated on a larger scale to support or challenge the findings. In addition, similar studies should be undertaken at a variety of institutions and institutional types to see if there are differences in findings related to institutional type and in particular regions or area.

Much of the existing literature on autonomy assumes that it is not a common concept among students. However, the present study found that nearly all of the participants demonstrated autonomy. Therefore, a large-scale study should be undertaken to determine the extent to which college graduates have achieved autonomy. Such a study might utilize interview techniques focused on assessing students' predominant or optimal ways of approaching decisions, relationships, and identities as described in the study.

Also, further research is needed to determine the role that coping mechanisms play in students' academic productivity. Students' coping strategies appear to dictate their potential to become self-authored and productive.

Implications for Education and Contributions to Psychological Knowledge

There are some implications for practice from this research on the topic of emerging adults' quest for autonomy; self-regulation and students and academic productivity. Policy and practice decision makers need to pay particular attention on students' quest for autonomy is often highly anticipated during emerging adulthood and is key transitional period from college to university as individuals look forward to new academic and social experiences. Therefore, postgraduate programs should be designed to involve autonomous learning and provide students with opportunities that promote self-authorship. For example, the teaching and orientation practices should be designed to assist students

to develop their internal identities, values and goals, as well as to encourage students to build and maintain positive relationship with others despite the challenges they go through.

Also, a comprehensive understanding of students' experiences focusing on self-efficacy, self-authorship, volition and self-regulation is warranted to provide a well-rounded perspective on the challenges faced by students in achieving academic productivity. Without this assessment, less effort might be taken to address student needs in promoting academic productivity. Hence, this research provided a tool that can assist in understanding the reality of emerging adults in pursuit of academic productivity. Educators' awareness on this subject will help them to address it, therefore, the contribution of this study rests on the fact that, the quest for autonomy may prompt students' ability to succeed in the completion of their academic programs as well as to meet the challenges of their future in academia.

Limitations of the Study

Although this research was carefully prepared, we are aware of some limitations and shortcomings. Firstly, the researcher sampled participants from only public universities and this particular context might have impacted the results. Thus, knowing how students in other types of institutions experience remains limited within the scope of the present study.

Another limiting factor may have arisen based on bias associated with self-reported data. It is believed that, human tendency to overestimate themselves when prompted for self-assessment especially those that have to do with competence and thinking abilities might not paint a real picture about the individual.

Conclusion

This study explored how the quest for autonomy; self-regulation influences emerging adults' academic productivity. The study concluded that the level of autonomous variables score amongst the students is comparatively high. There is positive relationship between self-regulation and students' academic productivity. Therefore, individuals who are self-regulated, are more autonomous, and are more productive academically. They believe that they have all the determination to deal with their own lives, that their own measures and decision-making have an effect on their lives, whilst those with low level of autonomy are considerably poorer in academic productivity. Emerging adults with better self-regulatory skills are more likely to make attempts to achieve a goal or task, and to endure longer in those attempts, than individuals with poor autonomy.

Therefore, the findings of this study will contribute to higher education and to the literature pertaining to higher education. It therefore, provides insight into the perception of emerging adults college experience and direction for possible programs and policies. The findings have implications for the leaders within higher education institutions as universities can promote self-directed and lifelong learning by developing and promoting autonomous supported learning environments through experiential learning. This is contended that one of the dilemmas facing current learning environments is what could be referred to as a mismatch between autonomous behaviour of students and their academic productivity. Therefore, higher education institutions can promote learners' autonomous capabilities by promoting relevant programs to captivate learners' interest. Such autonomous capacities include; self-efficacy, volition, self-regulation and self-authorship which could be achieved by creating students' opportunities to be more productive thereby, fostering their confidence in achieving desired goals. Disseminating these findings to lecturers, students, educational administrators, guidance counselors, and other stakeholders of education may be a necessary way to increasingly turn the current lack of attention on the challenges faced by emerging adults in universities.

REFERENCES

1. Ada, P. (2010). Principles of Teaching. *Educational Evaluation and Policy Analysis* 9(4), 337-343.
2. Ahlfeldt, S., Mehta, S., & Sellnow, T. (2005). Measurement and analysis of student engagement in university classes where varying levels of PBL methods of instruction are in use. *Higher Education Research & Development*, 24(1), 5-20.
3. Alrashidi, O., Phan, H. P., & Ngu, B. H. (2016). Academic engagement: an overview of its definitions, dimensions, and major conceptualisations. *International Education Studies*, 9(12), 41-52.
4. Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45(5), 369-386.
5. Anderson, P. (2002). Assessment and development of executive function (EF) during childhood. *Child neuropsychology*, 8(2), 71-82.
6. Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of parents' conditional regard: A Self-Determination Theory analysis. *Journal of personality*, 72(1), 47-88.
7. Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American psychologist*, 55(5), 469.
8. Arnett, J. J., & Taber, S. (1994). Adolescence terminable and interminable: When does adolescence end?. *Journal of youth and adolescence*, 23(5), 517-537.
9. Jensen Arnett, J. (2015). Socialization in emerging adulthood: From the family to the wider world, from socialization to self-socialization.
10. Baxter Magolda, M. B. (2004). Evolution of a constructivist conceptualization of epistemological reflection. *Educational Psychologist*, 39(1), 31-42.
11. Bergman, B. G., Kelly, J. F., Nargiso, J. E., & McKowen, J. W. (2016). "The Age of Feeling in-Between": Addressing Challenges in the Treatment of Emerging Adults With Substance Use Disorders. *Cognitive and behavioral practice*, 23(3), 270-288.
12. Beck, U. (2002). *Individualization: Institutionalized individualism and its social and political consequences* (Vol. 13). Sage.
13. Berger, A., Kofman, O., Livneh, U., & Henik, A. (2007). Multidisciplinary perspectives on attention and the development of self-regulation. *Progress in neurobiology*, 82(5), 256-286.
14. Blair, C. (2010). Stress and the development of self-regulation in context. *Child development perspectives*, 4(3), 181-188.
15. Blair, C., Granger, D., & Peters Razza, R. (2005). Cortisol reactivity is positively related to executive function in preschool children attending Head Start. *Child development*, 76(3), 554-567.
16. Brown, T. A., & Barlow, D. H. (2009). A proposal for a dimensional classification system based on the shared features of the DSM-IV anxiety and mood disorders: implications for assessment and treatment. *Psychological assessment*, 21(3), 256.
17. Buckley, P. J., Pass, C. L., & Prescott, K. (1988). Measures of international competitiveness: a critical survey. *Journal of marketing management*, 4(2), 175-200.

18. Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student engagement and student learning: Testing the linkages. *Research in higher education*, 47, 1-32.
19. Castillo, L. G., & Schwartz, S. J. (2013). Introduction to the special issue on college student mental health. *Journal of clinical psychology*, 69(4), 291-297.
20. Duckworth, A. L., Grant, H., Loew, B., Oettingen, G., & Gollwitzer, P. M. (2011). Self-regulation strategies improve self-discipline in adolescents: Benefits of mental contrasting and implementation intentions. *Educational Psychology*, 31(1), 17-26.
21. Eccles, J. S., & Templeton, J. (2002). Chapter 4: Extracurricular and other after-school activities for youth. *Review of research in education*, 26(1), 113-180.
22. Eisenberg, N., Sadovsky, A., Spinrad, T. L., Fabes, R. A., Losoya, S. H., Valiente, C., ... & Shepard, S. A. (2005). The relations of problem behavior status to children's negative emotionality, effortful control, and impulsivity: concurrent relations and prediction of change. *Developmental psychology*, 41(1), 193.
23. Eriksen, K. (2006). The constructive developmental theory of Robert Kegan. *The Family Journal*, 14(3), 290-298.
24. Evans, N. J., Forney, D. S., Guido, F. M., Patton, L. D., & Renn, K. A. (2010). Racial identity development. *Student development in college: Theory, research and practice*, 2, 260-261.
25. Finlay, L. (2006). 'Rigour', 'ethical integrity' or 'artistry'? Reflexively reviewing criteria for evaluating qualitative research. *British Journal of Occupational Therapy*, 69(7), 319-326.
26. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, 74(1), 59-109.
27. Fryer, J. W., & Elliot, A. J. (2012). Self-regulation of achievement goal pursuit. In *Motivation and self-regulated learning* (pp. 53-75). Routledge.
28. Garette, B., & Dussauge, P. (2000). Alliances versus acquisitions: choosing the right option. *European Management Journal*, 18(1), 63-69.
29. Hertz, J. E. (1996). Conceptualization of perceived enactment of autonomy in the elderly. *Issues in Mental Health Nursing*, 17(3), 261-273.
30. Hodge, D. C., Baxter Magolda, M. B., & Haynes, C. A. (2009). Engaged learning: Enabling self-authorship and effective practice. *Liberal Education*, 95(4), 16-23.
31. Jensen, L. A., Arnett, J. J., & McKenzie, J. (2011). *Globalization and cultural identity* (pp. 285-301). Springer New York.
32. Johnson, D. W. (1991). *Cooperative Learning: Increasing College Faculty Instructional Productivity*. ASHE-ERIC Higher Education Report No. 4, 1991. ASHE-ERIC Higher Education Reports, George Washington University, One Dupont Circle, Suite 630, Washington, DC 20036-1183.
33. Kabeer, N. (1999). Resources, agency, achievements: Reflections on the measurement of women's empowerment. *Development and change*, 30(3), 435-464.
34. Levin, H. M. (2013). The utility and need for incorporating noncognitive skills into large-scale educational assessments. *The role of international large-scale assessments: Perspectives from technology, economy, and educational research*, 67-86.
35. Lopez-Vergara, H. I., Jackson, K. M., Meshesha, L. Z., & Metrik, J. (2019). Dysregulation as a correlate of cannabis use and problem use. *Addictive behaviors*, 95, 138-144.

36. Mayseless, O., & Keren, E. (2014). Finding a meaningful life as a developmental task in emerging adulthood: The domains of love and work across cultures. *Emerging Adulthood*, 2(1), 63-73.
37. Moshman, D. (2005). *Adolescent psychological development: Rationality, morality, and identity*. Psychology Press.
38. Murray, A. W. (2004). Recycling the cell cycle: cyclins revisited. *Cell*, 116(2), 221-234.
39. Murray, D. W., Rosanbalm, K. D., Christopoulos, C., & Hamoudi, A. (2015). Self-regulation and toxic stress: Foundations for understanding self-regulation from an applied developmental perspective.
40. Nedelec, J. L., & Beaver, K. M. (2014). The relationship between self-control in adolescence and social consequences in adulthood: Assessing the influence of genetic confounds. *Journal of Criminal Justice*, 42(3), 288-298.
41. Nucci, L. P. (2001). *Education in the moral domain*. Cambridge University Press.
42. Pizzolato, J. E. (2007). Impossible selves: Investigating students' persistence decisions when their career-possible selves border on impossible. *Journal of Career Development*, 33(3), 201-223.
43. Pizzolato, J. E., & Ozaki, C. C. (2007). Moving toward self-authorship: Investigating outcomes of learning partnerships. *Journal of College Student Development*, 48(2), 196-214.
44. Prunkl, C. (2022). Human autonomy in the age of artificial intelligence. *Nature Machine Intelligence*, 4(2), 99-101.
45. Rusch, T., Steixner-Kumar, S., Doshi, P., Spezio, M., & Gläscher, J. (2020). Theory of mind and decision science: towards a typology of tasks and computational models. *Neuropsychologia*, 146, 107488.
46. Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual review of psychology*, 52(1), 141-166.
47. Shernoff, D. J., Csikszentmihalyi, M., Shneider, B., & Shernoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School psychology quarterly*, 18(2), 158.
48. Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and academic learning: Self-efficacy enhancing interventions. In *Handbook of self-regulation* (pp. 631-649). Academic Press.
49. Smith, J. S., & Wertlieb, E. C. (2005). Do first-year college students' expectations align with their first-year experiences?. *NASPA journal*, 42(2), 153-174.
50. Vansteenkiste, M., & Beyers, W. (2013). The jingle-jangle fallacy in adolescent autonomy in the family: In search of an underlying structure. *Journal of Youth and Adolescence*, 42, 994-1014.
51. Weinstein, N., & Ryan, R. M. (2010). When helping helps: autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of personality and social psychology*, 98(2), 222.
52. Zelazo, P. D., Qu, L., & Müller, U. (2005). Hot and cool aspects of executive function: Relations in early development.