Original Higher Education Experience of Graduating Students of Mathematics Education in Nigeria: An Autoethnographic Approach

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Abstract: In the face of bizarre challenges, many Nigerian higher education students are surviving out of sure doggedness and determination to succeed. Out of improvisation, deprivation and sheer hard work, many students have attained graduation with outstanding qualities. This study employs autoethnography to report the author's personal narrative of graduating in mathematics education in a public university in Nigeria. Reflective writings from three graduating students of mathematics education added voices to the autoethnography. Emerging themes deduced from the reports indicate a general mixed expectation for higher education, Students' tenacity in the face of a tense school climate, and a productive social interaction as constituting broad experience of graduating students of mathematics education in Nigeria.

Keywords: Mathematics Education, Nigerian Higher Education, Autoethnography, School Experience

1. Introduction

Education has always been considered as a means through which a society communicates its norms, values, and morals to her young one to ensure active participation in the society [1]. Education imparts knowledge, teaches skills, and instills attitudes to the recipients [2]. [3] maintained that in its widest sense, education is at a cross-road of societal development and knowledge, and importantly, of dynamic change processes and the capacities to make choices.

Education is at the centre of social and economic development because it provides knowledge and skills, encourages new behavior and increases individual and collective empowerment. [4] observed that educational institutions exist to impart high level skills to a reasonable proportion of the workforce, developing the intellectual capability of individuals, engaging training of competent, honest, patriotic and responsible professionals needed virtually in all spheres of human endeavor. Intellectual institutions are knowledge generators, centres of innovation, and importantly, service centres for their communities, facilitating and promoting change and development.

Higher education is the education given after secondary education in universities, colleges of education, monotechnics and polytechnics. In Nigeria, the Federal Ministry of Education has the responsibility for the coherence of national policy and procedures and for ensuring that the States' policies operate within the parameters of the national policy as adopted to local needs [5]. National co-ordination of policy at the political levels takes place through the National Council of Education, chaired by the Federal Minister of Education and includes all the State Commissioners of Education.

Responsibility for ownership of higher educational institutions is shared between the government, communities and private organizations. The administration of the higher education system is controlled and regulated by established commissions, such as the National Universities Commission, for universities. The country now adopts a uniform entry procedure to polytechnics, colleges of education, and universities, under the auspices of the Joint Admissions and Matriculation Board (JAMB) [2]. Thereafter, each institution adopts a selection examination (aptitude tests) for her candidates that were successful in the Unified Tertiary Matriculation Examination (UTME).

Basically, higher education is a means of developing one's

potentials to its maximum and discovering lasting values. [6] asserts that there is compelling evidence that the education attainment – both in terms of years of schooling and cognitive skills – is positively linked to earnings and productivity. Apart from the very obvious economic impact, the connections between education levels and attributes such as health status, civic participation, and longevity are well documented across both developing and developed countries (UNESCO, 2010).

Present-day education is reactive and future oriented. It actively promotes innovation and dynamically evolving social needs [3]. Education has risen to become the fulcrum on which the competitiveness of the nation in the global community rests. Higher education, therefore, must be tailored towards success in communities and workplace. To attain success, emphasis must be placed on higher education that develops in the individual a high sense of global awareness; financial, economic and business literacy; civic literacy; and technological prowess [7]. This calls for efficient integration of modern technology in strategies for communicating knowledge in general, and mathematics education in particular, to a new generation of students.

Mathematics education is a field of study concerned with the tools, methods and approaches that facilitate the practice of teaching and learning mathematics. Mathematics education, particularly at the higher education level, prepares students for quantitative and symbolic reasoning and advanced mathematical skills through general education, services, major and graduate programmes. [8] argued that mathematicians can be categorized into two groups; the mathematics educators and professional mathematicians. The mathematics educator is concerned with curriculum development, instructional development and the pedagogy of mathematics. Mathematics education basically prepares students to become innovative mathematics instructors, professionally prepared to communicate mathematics to learners at all levels.

Mathematics educators see mathematics not simply as a body of knowledge or an academic discipline but also as a field of practice. According to [9] this is because they are concerned with how mathematics is learned, understood, and used as well as what it is, they take a comprehensive view. Mathematics education looks beyond applications to ways in which people think about mathematics, how they use it in their daily lives, and how learners can be brought to connect the mathematics they see in school with the mathematics in the world around them.

Mathematics education as a field of study has been charting the pathways for effective delivery of mathematics instruction since its inception over a century ago [9]. The establishment of national school systems by countries necessitated massive training and re-training of teachers as professionals. This basic requirement leads to the gradual development of mathematics education as university subject. In Nigeria, the National Universities Commission (NUC) has approved and accredited mathematics education in diverse single and combinatory forms. As at January 2012, over fifty (50) universities within the country offers mathematics education programmes in combinations such as B.Sc.Ed Mathematics and Statistics, B.Sc.Ed Mathematics and Computer Science, B.Sc.Ed Statistics and Computer Science, B.Ed Mathematics, and B.Ed Statistics (National Universities Commission, 2012). These statistics cut across public and private universities. Within these programmes, students are exposed to the realities of the modern classroom they expect to direct. Students of mathematics education are turned out as creative mathematicians who still have full role to play with cutting edge technologies adding further layer of innovative possibilities [10].

In view of the broad expectations of the National Policy on Education (NPE) which lay down the philosophy of mathematics education, students of the programme go through diverse experiences to graduate with the required proficiencies. The Benchmark Minimum Academic Standard (BMAS) of the National Universities Commission stipulates the blueprint of both academic and field experiences of the trainee-teacher. Specifically, NUC (2007) affirms that the mathematics education programme must seek:

i. The acquisition, development and inculcation of the proper value-orientation for the survival of the individual and the society.

ii. The development of the intellectual capacities of individuals to understand and appreciate their environments

iii. The acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community

iv. The acquisition of an objective view of local and external environments. [11].

Based on these articulations, students of mathematics education come up with diverse agencies, strategies and pathways to develop the spirit of enquiry, creativity and entrepreneurship. The four to six years it takes to graduate from the programme are definitely laden with personal experiences, all casually knitted together in the making of the potential graduate.

Several researchers from within and outside Nigeria have attempted to present various scenarios of the vicissitudes of undergraduate life on Nigerian campuses. Most of these studies present students' reactions to specific instructional conditions, students coping strategies in school, students' adoption of specific technologies, and students' lifestyle patterns. Generally, these researches have resorted to conventional surveys, interviews and focus group discussions to arrive at generalizable outcomes. These approaches have been affirmed over time to be robust. However, recent dimensions of research methodology are now beginning to emphasize the reality that human identities are evolving, fluid and dynamic [12]. Consequently, ethnographic approaches resort to presentations of in-depth reflection and thoughtful self-critique to bring out storied experiences that represent broad social, political, cultural, geographical and historical contexts. The perspective of autoethnography entails telling a systematic story of important life events in

retrospect without the bias of manipulating interplaying forces of nature.

In light of the prospects of the autoethnographic approach, this study seeks to capture mathematics education students' own interpretations of events that constitute their experience in attaining prescribed proficiency in character and learning. The unique environment provided by the Nigerian higher education system may best be perceived through the pictures painted by exiting students. Also, the scope of coverage the autoethnography may reveal the ideal dynamics, strengths, weakness and progressive efforts of the mathematics education programmes of teacher-training institutions in Nigeria.

2. Literature Review

Examining university students' experience is vital to many informed decisions on students' growth and progress. Generally, many researches into attributions of progress in school are tilted toward a different perspective which diverts attention from the personal competencies, natural support system, resources and strengths of the students' individual definitions [13]. University students often conceive their experience as unique and a conglomeration of several underlying factors. These individual student inputs sometimes include effort, ability, personal engagement and attendance [14]. In this regard, a study by [15] reported that it is necessary to give adequate and sufficient attention to students' journeys to self-concept and self-esteem, particularly in relationship to academic performance.

Student experience has much to do with their deployment of learning styles, study habits and even pattern of practice. One of the much-touted theories of repeated practice suggest that practicing any skill for 10,000 hours is sufficient to make one an expert. [16] reported that the 10,0000-hours concept can be traced back to a 1993 paper written by Anders Ericsson, a Professor at the University of Colorado, called *The Role of Deliberate Practice in the Acquisition of Expert Performance*. The major thrust of this theory, made popular by Malcolm Gladwell's *Outliers*, holds that many characteristics once believed to reflect innate talent are actually the result of intense practice. Psychologically, learning a new skill changes how the brain is wired on a deep level [17]. Basically, at the onset of university education, adjusting to learning schedules and other academic demands might feel stiff and awkward. But as the students display resilience and tenacity through practice, it gets smoother and feels more natural and comfortable. Such adjustments derive from the full comprehension of school climate, an important variable that could explain a modest share of total variance in students' performance [18]. Positive adjustments manifest in a balanced approach to attendance, classroom behaviour, respect for teachers and relationship with other students.

The relevance of individual explanation of academic experience is highlighted by several psychological and learning theories. The work of Carol Dweck gives a harmonizing perspective by building on existing paradigms of attribution theory to develop a model that emphasizes people's theories about their own intelligence. Broadly, Dweck explained that those learners who have an "entity" theory view intelligence as being an unchangeable, fixed internal characteristic, while those who have an "incremental" theory believe that their intelligence is malleable and can be increased through effort [19]. Dweck's views exposed more debate on issues of self-esteem, its role in motivation and the factors affecting it. In view of Dweck's model, higher education students with incremental theories choose more challenging tasks to perform, persist more in the face of failure, and perform better academically [20]. While the "entity" group of higher education students are likely to attribute failure to an internal, stable cause by tagging themselves as unfortunately stuck with low intelligence, incremental learners are likely to attribute academic failure to an external, unstable cause, that is, their effort. Evidently, for many graduating students, differences in effort are largely explained by differences in prior effort and achievement, as well as their experience through school. [21] explained thus:

Students with a growth mindset saw effort as a virtue, because effort helps to develop ability. And they tended to perceive academic setbacks as a call to increase their effort or to try new strategies. Students with a fixed mindset, on the other hand, were less likely to welcome challenges that could reveal shortcomings. They saw effort in a negative light, because many believed that effort is a factor that indicates low ability rather than a factor needed to *express* or *increase* ability. They also tended to see academic setbacks as evidence that they lacked ability.

Retrospective narratives are also vital in understanding higher education students' view of the future. A sound theoretical foundation for explaining such view is the hope theory. The hope theory is a cognitive and motivational model that emerged out of the work of C. R. Snyder and colleagues. According to the theory, hope reflects individuals' perceptions regarding their capacities to clearly conceptualize goals, develop the specific strategies to reach those goals, and initiate and sustain the motivation for using those strategies [22]. The thrust of the hope theory is the interplay of the pathways and agency components. The proponents maintain that these components are additive, reciprocal and positively related. A goal can be anything that an individual desires to experience, create, get, do or become. In this regard, one of the obvious goals of higher education students of mathematics education is to graduate proficiently, in character and in learning. With these goals in mind, the students are expected to develop alternative pathways that can surmount every eventual obstacle by appropriately activating the associated agency-inducing cognitions and progressing to graduation. [23] affirm that high-hope students are more likely to graduate and not to have been dismissed from their programmes of study. Self-narratives of individual school experience may hypothesize the way perceived competence moderate the relationship between implicit theories, goal orientations and actual achievement at the point of graduation [24].

Research reports from within Nigeria's higher education often point to certain key issues as headlining the true experience of higher education students in the country. These issues border heavily on inherent cognitive stress, environmental hazards and accommodation problems, decaying state of infrastructure, high fees, and employability anxiety. Generally, the students' voices have been glaringly absent from discussion on these issues, particularly due to a protectionist mentality on the part of the largely cautious students. [25] reported that students in this part of the world are not always treated as responsible adults, and when they voice their complaints, it is rare that they make those demands official. Silently, students go through all the inadequacies of the system and suffer from academic burnout which eventually affects their self-efficacy and academic engagement [26]. The attendant cognitive stress experienced by higher education students in Nigeria has been reported to be the highest among students studying science-related disciplines [27]. There are also reports of depression and other associated factors [28].

The reports about poor housing conditions have it that there are inadequate student accommodation caused by small number of hostels, inadequate environmental management, and over-crowdedness of facilities due to increased enrollment [29]. Yusuf (2011) added that in regard to housing, many students suffer incessant increase in house rent, domestic violence and neighbours' disturbances. The general atmosphere of most Nigerian universities is dampened by poor state of learning facilities. [30] observed that the most serious problems encountered by students include inadequate classrooms and seats, and lack of constant power supply. Similarly, there are problems of high school fees, cumbersome screening and registration process, and shortage of scholarships, subsidies and grants [31].

In the face of these bizarre challenges, many Nigerian higher education students are surviving out of sure doggedness and determination to succeed. Out of improvisation, deprivation and sheer hardworking, many students have attained graduation with outstanding qualities [30]. But hardly are the entire tales of this resilience and tenacity reported in the body of available literature. Many available studies have disproportionately focused on factors related to school failure and underachievement rather than those related to high level of academic success. This deficit perspective often averts attention from societal and systemic causes of underachievement; reinforce negative stereotypes, assumptions and existing negativity bias; and fail to explain or account for students who come from such struggling educational systems yet succeed in school [13]. At its most basic level, academic tenacity is about working hard, and working smart for a long time. [21] noted that more specifically, academic tenacity is about the mindsets and skills that allow students to look beyond short-term concerns to longer-term and higher-order goals, and withstand challenges and setbacks to persevere toward these goals.

It is in the direction of these student realities that this study seeks to filter out the original higher education experience of graduating students of mathematics education in Nigeria. In trying to fill the gaps observed in available literature on the state of the Nigerian higher education system, this study relied on specific autoethnography and reflective writings of the students to interpret the broad experience of the typical Nigerian student. A unique effort was made at focusing on the strengths and sustenance that brought these students to successful completion of their first degree programme in mathematics education.

3. Methodology

This study employs the autoethnographic approach as the paradigm for reporting personal narratives of graduating students of mathematics education in Nigeria. Autoethnography is an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience [32]. Autoethnography is aimed at identifying manifestations of power and privilege in everyday practices that should – and should not – exist [33]. Combining ethnography, biography, and self-analysis, autoethnography as a research method utilizes data about self and context to gain understanding of the connectivity between self and others within the same context [34].

Autoethnography is self-focused. This implies that the researcher is at the centre of the investigation as a "subject" (the researcher who performs the investigation) and an "object" (participant who is investigated) [34]. For this study, I, the author (the researcher) presented a detailed summary of my personal experience as an undergraduate of mathematics education in a federal university in North Central Nigeria. My experience, which spawns between 2004 and 2009, is further enriched by my coming back into the system as a staff in 2012.

So much has changed in the Nigerian higher education system since my undergraduate days (about a decade ago). To capture and compare these changes, three (3) graduating students of the same mathematics education programme volunteered to provide personal narratives of their own time within the same university (as undergraduates between 2012 and 2017). These reflective writings of the outgoing students (one female and two males) provide a holistic picture of the cultural context and social flux that exist in Nigerian higher education. The distinct cultural identities of the reports are expected to substantiate the major themes of student experience from this part of the world [12].

To protect the privacy of the participants of this study, real names were avoided. The three contributors were also given the privilege of going through the complete work before publication.

4. Presentations

4.1. The Struggling Gifted Boy – (The Autoethnography)

I came from a low income family in the *Idoma* – speaking part of Benue State, Nigeria. I was first among six (6)

children and the only one from my mother. As such, my growing up years was split between my mum's place and the family house – an extended family household under the care of my paternal grandparents, uncles, aunts, cousins and siblings. Although dad worked at a large rice mill and mum trade in local farm produce, a twist of so many factors threatened my final years in the secondary school. Eventually, I took the two Senior School Certificate Examinations (SSCE) of the time in 2001. I actually came out in flying colours and felt privileged to have successfully finished from a prestigious mission school. Those of us in the secondary school known for always taking the first ten positions in the science class were all interested with potential careers in health science, particularly, Medicine and Surgery. Obviously, the trend in career choice at the time depended heavily on the prospects for income, prestige and employment. Some higher education programmes were considered more marketable and lucrative because they led to high-income careers. Talk about entrepreneurship was at its infant stage in those years. My considerations for future career began as a solo effort involving just me, excluding my uneducated parents, but later an uncle who works in one of the big banks in western Nigeria, who picked interest in my academic performance waded in, and confirmed my desire for the medical profession.

Banking on the support of my uncle, I applied to study Medicine and Surgery at a prominent university within the North Central region of Nigeria. This attempt via JAMB in 2002 failed as I scored a little below the benchmark for Medicine and Surgery and also wrongly chose a very distant institution as a second choice for Biochemistry. Around the same period, my beloved uncle took ill and passed on. To me the dream for higher education was almost eroded. I later packed from the extended family house to stay with another uncle in my town and so doing hoped he will support me out of his blossoming business at the rice mill. But this uncle was getting prepared for marriage and I knew the resources will be too slim for my sponsorship for another shot at university admission. This realization was a turning point for me as I ventured into teaching at a local private secondary school down town. I vowed not to try for admission again until I can at least personally pay for the JAMB registration. Teaching was intrinsically rewarding to me and even with very discouraging stipends; I stayed motivated, honing my skills. I manage to teach English Language, Geography, Mathematics and Biology at several local schools in my area. The feedback in terms of my performance was encouraging and I continued as an untrained teacher until 2004, when my second attempt at university education paid off. I got admitted into a mathematics education programme in a university not very far from home, but struggled to raise the initial fees. Mum sold her store (space) in the local market and along with support from a cousin; my little savings gave me a head start. Later on, support came in diverse forms from other members of my extended family.

Due to shortage of funds, I had to "squat" with a relation who was admitted to study Veterinary Medicine, since I could not afford the accommodation fees. This partnership fostered a smooth accommodation for me for three consecutive years as students of Veterinary Medicine are automatically entitled to housing all through their time in the University. Although, they too had to pay, Vet students do not go through the harrowing balloting process required for picking a bed in the grossly inadequate hostel rooms. Each room has four (4) wardrobes (cupboards for personal belongings) and four (4) beds (two double-bunk iron-frame beds). Plus "squatters" like me, each hostel room originally meant for four (4) students end up accommodating twelve (12) on the average. Once settled into school, I usually get regular "shipments" of food stuff from home, and as such, feeding was much of a problem like getting the money for meeting up with the demands of undergraduate life. Though over-crowded, the university authority ensured steady power supply which aided my "free style" of reading in the room when others had vacated to the classrooms for night reading.

The school climate was tense due to over-stretching of available facilities. First-year classes are often overflowing and students had to sometimes seat on the windows and on the floor. To cope, I had to ensure I am early enough to class (even if this implies leaving the hostel without a decent bath on cold days) to get a front seat. However, things began to get better when we began to specialize in our various fields and the attendance eventually thinned out. Studying, taking tests and turning in assignments were never a challenge for me. I attributed this ease to my background as an untrained teacher. What other students find difficult to understand in and out of class often appear cheap to me, leading to me acting as a "consultant" and tutor to friends on several issues. The maturity I acquire from my previous places of work aided my relationship with both lecturers and fellow students. Consequently, it did not take very long before everyone started seeing the "star" in me. From the first-year performance, many concluded I was truly gifted, considering that my approach to study was simple and seemingly effortless.

The outcome of my first-year examinations placed me in the top class of high achievers in the university. To add to the blessings, the Vice Chancellor announced a scholarship to motivate students to work harder in their academics. The money from the scholarship, though too meager to cover my total schooling cost, was a big relief to my financial burdens until I graduated. The popularity brought about by the VC's kind gestures won me a lot of friends from diverse ethnic backgrounds. These relationships were a positive influence on my dedication to academic excellence since most of them were originally for the purpose of private coaching, group study, and assistance with assignments. The implication is that I often had to work harder to meet expectations. With each preparation to deliver tutorial classes to classmates, I became better.

Key challenges of my time as an undergraduate in the school include incessant industrial actions by the university staff unions, shortage of commuter buses (I often had to trek across the wide expanse of the campus), and cramped lecture

schedules. Generally, lecturers seem not to come for their classes early in the semester until the examination timetable was out. This led to unnecessary late hour rush to cover course contents. Most of the lecturers even preferred to recommend materials for stated synopsis and seem to vanish until few weeks to examinations. Indeed, so much was left to personal study.

My final year in school was my best as I had smaller workload and enough time to carry out my research project. I enjoyed my interaction with my project supervisor, who actually sowed genuine seeds I am still reaping from. All through my time in school, I used my short and long holidays to teach in different secondary schools in my town. These regular opportunities to practice what I was being taught in school seriously aided my growth and development as a trainee-teacher. I began early to see great prospects for my future.

For me, the university experience was fully enriching, even though the resources I needed were never adequately available. I always tell people, years afterwards, that every single piece of experience truly worth it.

4.2. Success Is All that Matters – Nene

My name is Jenny and this is my story. Before I got admission into the federal University of Agriculture, Makurdi, (UAM), I was a student at Ebonyi State University Abakaliki (EBSU) studying Agricultural Economics. I didn't really like course and wasn't coping with it either, so I dropped out in my 3rd year into the course. I registered for JAMB but wasn't given admission because I had a D7 (Pass) in English Language. This implies that I had to write WAEC and then re-register for JAMB for a degree in B.Sc. Statistics and Computer Science. It wasn't easy for me during this stage of my life, because I was facing a setback in my life and like we all know, time waits for no one. Some of my mates were even rounding up their courses as at the time. Finally, I was offered admission into the University of Agriculture, Makurdi, (UAM) Benue State, Nigeria, for a degree in B.Sc.(Ed.) Statistics and Computer Science and at the same time was also offered admission at the Federal University, Lafia, Nassarawa State, Nigeria, for a degree in B.Sc. Mathematics. I had to make a choice and I went for the B.Sc.(Ed.) Statistics and Computer Science here in UAM. Honestly, at first, I didn't like that my course was related to Education but in our first year in school our Lecturers in education were really friendly and good in terms of teaching and coaching us. They led us to understand how important our course is and should embrace our course for we are privileged. Lectures were always interesting and amazing and before we got to our second year in school I had already fallen in love with my course. I couldn't ask for a better course that is perfect for me.

During my first year in school here, it was kind of difficult going through all the procedures, especially the part where one have to go through all the Cores (South, Middle, and North) – as the various parts of the Campus were named - to do one or two things. It was depressing, and to make matter worse, some of the members of staff were being biased by attending or relating better to students who speaks some kind of language which I got to know was the *Tiv* language of the ethnic location of the Campus. It was so obvious that I began to wonder what the place of the *Idomas* and other tribes in Benue State is, not to even mention those of us that are far away from here. But that was handled to a certain level because by the time I got to my second year, new policy was introduced where students are to do their registration and login online. With that, the stress of going round the three cores and having to deal with other stressful matters were minimized.

For the staff of the university, I didn't really have much business to do with them. But the few ones that I have had encounter with seems nice and approachable especially the member of staff in the Education Faculty. My family members were very supportive, they kept on encouraging me, telling me that my setback will one day "don't count" because of my persistence and all that will count and matter will be my success.

My prospect for the future is a simple one. I am going to put all that I have acquired from and outside of UAM into a good use. I like programming (coding) but my mind is open to all that has to do with my course (Education, Statistics and Computer).

My higher education experience, as I think of it, I realized that I have a very big smile on my face which could only mean that even though experience always involves both the good and the bad, the good experience surpasses the bad one and I can't tell it all. I feel fulfilled to a certain level and I appreciate God almighty for guiding me in recognizing the strength in me which I didn't even realize I had.

4.3. I'm a People's Person – Id

My pre-university background was just okay, I guess. I cannot really refer to myself as being a serious student in my Secondary School days. All I did was to attend classes because the classes were compulsory. I don't think I ever read any book before exams. It was just a situation of me taking whatever I learnt in the class to the exam hall. I never ever failed though, so I guess I was just lucky. I can say I hardly ever read for my WAEC (SSCE) too but I had five distinctions and two credits in just one sitting, and yes, it was all my personal work and effort.

Chemistry was my worst subject. The chemistry teacher too was the worst teacher I ever had till date. But I thank God I got a C6 in WAEC in chemistry. I like to think I got 50 on the dot, so it was more of a narrow escape.

So my pre university background was just okay and on the average.

Emm, I never really had any expectations for higher education, but I guess I wanted a free environment. I went to a military secondary school (Nigerian Navy Secondary School, Port-Harcourt, Rivers State, Nigeria), so the environment was very restricted. I did not like that. So I was always envious of the idea that there were people in the university who were free and responsible for their own

decisions.

I made two attempts at higher education. I had to settle for a remedial admission on the first attempt, but the second attempt gave me admission into the university. I applied A.B.U Zaria (Ahmadu Bello University, Zaria, Kaduna State, Nigeria) on the first attempt. University of Agriculture, Makurdi, was the the second.

When I was informed that I had admission into Statistics/Computer education (B.Sc.(Ed.) Statistics and Computer Science), I did not really think the "education" part was significant. I just thought I was coming to the university to do Statistics and Computer Science. I wanted Civil Engineering so I wasn't really happy about the course I was granted admission into. I wasn't sad either. I had it in mind that I was going to change my course to Engineering. As time went on, I grew to love the course but then I still wanted to change from B.Sc.(Ed.) to B.Sc. I had all the necessary qualifications to do the change but now I think that would have been a mistake.

From my 200 level second semester, I started to like my course and today, I like the course, not because of the Education aspect though, but because I think I have three options to further in. Technically, it's just two options (Statistics or Education) because I don't see Computer Science as being my kind of course. I am definitely furthering in Statistics though, by God's grace.

I never had any challenges personally. But in most of the semesters, when all other Lecturers are handling their courses just fine, there is always that "lecturer" that decides to make learning a living hell for all the students. If the aim of lecturing is to impact knowledge, I'm completely oblivious of the motives of this latter category of lecturers. At the end of such courses, you get to see the grades of D, E or F across all the students' results.

Was there a defining moment? Not really. I had one moment, the moment was when Dr. A, the then HOD of our servicing department told me he would not allow me to change to the department (for a B.Sc.) and that I would thank him later. Well I would love to say thanks to him now, but I like to imagine now is not the later he meant. Lets' see how the future go.

I'm a peoples' person, not just because I feel that way but I've received various compliments on that characteristic. For the cultural diversity, I don't think I ever had an issue with anybody because of his/her tribe whatsoever. From my view of the individuals in the school environment, I think every tribe has characteristics that define its members. These characteristics are both positive and negative. There are exceptions to this assertion as very few individuals don't have characteristics associated to their tribe in them.

I never really had personal relationships with the staff of the university. I think just three of the university staff can recognize me. Two out of these three are my Statistics lecturers (Mr. P and Mr. N), because I always get good grades in their courses. The third is my project supervisor (Mr. AJ) and this recognition I think is because the project is more like a one to one (supervisor to student) interaction.

With my family, I hardly ever had any hiccups. I would refer to my relationship with my family in the course of my first degree as almost perfect.

By Gods' grace, hopefully, the future is still very bright. I would like to major in Statistics even though I haven't really decided a Statistical field to master in yet. I would really need relevant information and views from higher authorities on that.

My higher education experience was just great. The only thing I think I would miss would be the individuals in the school - my friends and well-wishers.

4.4. Friends Helped Me to Become Social – Jon

My pre-university experience was almost similar to all teenagers whose aims were to become an undergraduate student of a prestigious university studying a desired course and at the end graduate with honours. The idea of studying hard was the order of the day, to compete with peers and to attain my desired goal in life.

My personal expectation of the university was similar to the campus life I watched in movies, where the school plan few hours of lectures for students, students study very little, go to party and belong to one secret cult or the other for protection. I see the university then as dreadful place where students are often threatened with carryovers by lecturers, students been intimidated by cult members and the elite in the school. All my aspiration was to be a church boy and an anti-social person in order to avoid troubles and face my studies.

I gained admission after my second attempt. I was very happy when I gained admission though it was not the course I applied for but it was similar to what I applied (I applied for B.Sc. Statistics and Computer Science but was given B.Sc.(Ed.) Statistics and Computer Science).

My major challenges in the course I studied were the small lectures hall we had for lectures, intimidation of Education students by B.Sc. lecturers and B.Sc. students (from the servicing department) and the little (inadequate) break down of topics taught mostly by Computer Science lecturers.

Yes, there were defining moments in my time in the university. The defining moments I had in the University were the time spent making friends who were always there for me and also helped me on been a little bit social. Those periods were the time I got a little exposed to the good and bad things of life and I was able to understand people more. I was able to meet more knowledgeable students to help clarify me on my education.

At first I was really finding it difficult to cope with people from the different backgrounds, but with time I became use to it. Although, sometimes I excuse myself from those am not comfortable with because I can't confront them.

My relationship with staff of the University was very poor.

My relationship with my family was very enormous because they made sure they hear from me always to know how am fairing in school and I also do the same by telling them of my academic progress and my needs.

Having completed my first degree, my desired is to continue

with my Master degree immediately after the National Youth Service Corp scheme, once I have the needed funds.

My University education was not the way I had earlier expected right from my quest for admission because i had a target grade that I wanted graduating with. The reverse is the case now and certain benefits which I intend to enjoy were also lacking.

5. Discussion

5.1. Mixed Expectations for Higher Education

The fact that there are diverse expectations for higher education is a theme that runs through the autoethnography and reflective writing presented in this study. For the author, the incentive for seeking admission in the first place is the prospect of graduating and getting a good job to support the family. Being the first of six children in a polygamous family implies heavy responsibility, a sense of which the author got as a young teenager. This feeling of the weight of the family on his shoulder turned out to be an intrinsic source of motivation all through the years of higher education.

For Jon, the fantasy of the campus life as displayed in movies contributes to his expectations for higher education. Although not all the portrayal of campus life is indeed true, this point of view prepared him to avoid bad influences and face his studies. Id's view of higher education grew out of the quest for a completely free environment where he could be responsible for his own decisions.

The various explanations for seeking higher education given in the presentations indicate that in Nigeria, like every other country, a degree in hand makes one more desirable to potential employers. Other popular reasons according to [35], include pay increase (for those already working), promotion, networking opportunities, and development of critical thinking and communication skills. From the autoethnography, it is obvious that education, to some individuals, is not a luxury but a necessary foundation for life. A sound first degree programme sure aids young adults to choose a desirable field of discipline or career.

5.2. General School Climate

Another theme central to all the presentations made in this study is the difficult school climate of higher institutions in Nigeria. Apart from wide discrepancies in programme placement for admission seekers, the entire university environment seems hostile and requires firm determination to master. Nene emphatically mentioned the stress involved in the usually tedious screening and registration process for new students, although this was brought under control by the introduction of online registration system. Such difficulty in office procedures breeds tribalism, favouritism and nepotism, as the dominant ethnic group tends to replace the official language for student-to-staff communication with their local dialect. The practice of using local languages to "make way" or jump due process is actually not supported by the university administration, but it has persisted and always raise its ugly head to the frustration and disenfranchisement of a whole lot of students.

Just like the autoethnography exposed, "the school climate was tense due to over-stretching of available facilities". One of the reflective writings (Jon's) also attest to the challenge of small lecture halls and intimidation from staff and students of the servicing departments. The revelation about inadequacies in school facilities supports earlier studies by [29], [36], [30], and [31]. That these students surmount the short-comings imposed by non-availability and inadequacy of school facilities points to their doggedness and determination.

It is smoothening to note that many students of mathematics education do eventually overcome the "bullying" they get from staff and students of Pure Sciences departments. The intimidation in the first place, is self-inflicted. It is self-inflicted in the sense that mathematics education students often wish, right from the point of admission, they had been offered admission into programmes in Pure Sciences, Engineering and Computational Mathematics. This mindset is a reflection of the relegated position given to education-based career in the Nigerian society. For instance, teachers are known to be the worst treated category of workers in Nigeria. Across the nation, teachers at public primary and secondary schools are being owed arears of salaries running into four to five months. The implications of this misplaced way of reasoning were expressed by [37] in the following terms:

A common outcome of several soul-searching and fact-finding efforts is the neglected value system of the citizenry. To many, the dynamics playing out in the economy are the end products of unchecked profligacy and downgrading of cultural orientation. Education as the keeper and lubricant of the wheels of societal progress has been neglected.

The cultural disregard for the education-based disciplines runs up high into the fabric of the higher education community. Some degree programmes are thus tagged "marketable" while others, like education-based course options are tagged "pitiable". But in reality, the tides are changing and the education sector (private sector -driven) is rapidly becoming a major employer of labour in Nigeria. Most graduates of the so-called "marketable" programmes are now ending up as classroom teachers in the face of growing unemployment. This class of graduates resorting to teaching for a living often rush into further post graduate studies in Education, just to secure their jobs – jobs they derided the original mathematics education students for. This is the truth Dr. A., a former Head of the mathematics department and himself an offshoot of mathematics education (first degree was actually B.Sc.Ed.), knew and impressed on the young Id. Mathematics education students are increasingly getting to know their self-worth and the impact their training can make in the society. This is best revealed in the students' reports of their personal journeys to self-concept and self-esteem [15] as exposed by the approach of this study.

Adding to the tense nature of the school climate is the effect of the pedagogical inadequacies of the lecturers from

the servicing departments. The Mathematics Education programmes of most Nigerian universities are structured to rely on the services of other departments in the core sciences. So, although mathematics education students belong to the Department of Science Education, core course units outside Educational Methodologies, Educational Foundations, and General Studies are taken from other servicing departments within the institution. Some of the lecturers from these servicing departments are often accused of discriminating against students from Education-based programmes. But most of the time, such display of segregation arises out their lack of depth in classroom management strategies. The reflective writings of the students suggest that some lecturers from the servicing departments may not be the type of instructors who give heed to details and pay attention to the students, needs outside the "mechanical" delivery of lectures in mathematics. for instance, Jon pointed out that there is "little (inadequate) breaking down of topics taught mostly by Computer science lecturers". Likewise, the autoethnography revealed that most of these lecturers do not turn up for their scheduled classes early in the semester, leading to a cramped fixing of lectures and unnecessary rush close to the beginning of examinations. This, of course, does not augur well for the academic wellbeing of mathematics education students.

5.3. An Avenue for Wonderful Social Interaction

Higher educational institutions are first of all social institutions, meant to bring together people from diverse socio-economic background. All the reports presented in this study emanate from a large federal university in North Central Nigeria and accommodates students from different part of the country. Nigeria as a country is a nation of more than 500 languages and hundreds (at least 250) ethnic groups [38]. Many of these ethnicities are represented in the school, either as students or as members of staff. In a federal university, admissions and recruitment are handled on the basis of federal character – a term for equity in the country's national life.

With respect to cultural diversity, all the contributors to the presentations in this study performed reasonably well. Id, for instance, referred to himself as "a people's person" who believed that tribal "characteristics are both positive and negative" with exceptions of "very few individuals" who hardly display "characteristics associated with their tribe". For students like Jon, coping with people from the different backgrounds was difficult at first, but he later got used to the diversity. Jon was also thrilled by defining moments spent with friends who were always there for him and helped him become a little bit social.

For the author, making friends was a natural gift. Coupled with the exposure brought about by academic excellence, the social balance was moderated by the maturity developed in the years before higher education. For him, the relationships, friendships and social interaction within higher education sharpen his dedication to academic soundness.

The support of family was significant to the great time students spend in higher education. Nene reported that her family members were very supportive, encouraging her into

persistence and eventual success. Id referred to his relationship with his family as "almost perfect", while Jon observed that his family was always in touch to know he is faring in school. These observations are in line with the position of [39] that when families are involved, students achieve more, exhibit more positive attitudes and behavior, and feel more comfortable in new settings.

6. Conclusion

This study has attempted to present first-hand experiences of graduating students of mathematics education in a typical public university in Nigeria. Three reflective writings from three graduating students of mathematics education added voices to the autoethnography presented by the author. Emerging themes deduced from the narratives indicate general mixed expectations for higher education, tenacity in the face of a tense school climate, and an avenue for positive social interaction. It was also evident from the reports that conditions continue to get better and the ultimate outcome of higher education depend heavily on the individual student

The voices of the contributors to the presentations in this study summarize the state of higher education experience for mathematics education students in Nigeria:

For me, the university experience was fully enriching, even though the resources I needed were never adequately available. I always tell people, years afterwards, that every single experience truly worth it. – Author

My higher education experience, as I think of it, I realized that I have a very big smile on my face which could only mean that even though experience always involve both the good and the bad, the good experience surpasses the bad one and I can't tell it all. I feel fulfilled to a certain level and I appreciate God almighty for guiding me in recognizing the strength in me which I didn't even realize I had. – Nene

My higher education experience was just great. The only thing I think I would miss would be the individuals in the school – my friends and well-wishers. – Id

My university education was not the way I had earlier expected right from my quest for admission because I had a target grade that I wanted graduating with. The reverse is the case now and certain benefits which I intend to enjoy were also lacking. – Jon

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