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Educational Development Network
Second Phase



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Foreword

This issue of the *Journal of International Cooperation in Education* is a collection of selected papers that have been produced by a three-year research project conducted under the framework of the "Africa-Asia University Dialogue for Educational Development" ("A-A Dialogue") network.

The "A-A Dialogue" network is an international network of African and Asian universities, which has been existing since 2004 when Phase I of the network project was started. Phase I was conducted in cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations University (UNU), and the Japan International Cooperation Agency (JICA) with the Center for the Study of International Cooperation in Education (CICE), Hiroshima University, Japan functioning as the secretariat. The nature of this initial stage (Phase I) was a joint research endeavor by African and Asian universities to contribute to achieving the international commitment of "Education for All" (EFA) particularly in Africa.

This Phase was successfully completed, having borne fruit of more than fifteen research papers striving for possible solutions to various issues concerning EFA. They appeared in the two issues of the CICE journal (Vol. 11 No. 3 and Vol. 12 No. 1. Please refer to <http://home.hiroshima-u.ac.jp/cice/e-publications/>). This successful undertaking continued into Phase II which was officially embarked upon in June 2009 with twenty eight (28) member universities, sixteen (16) from Africa and twelve (12) from Asia, after a preparatory period in 2008. This Phase II was also successfully completed in June 2012.

One of the major activities of Phase II was comparative research. While in Phase I research collaboration had focused more on issues related to EFA according to individual countries' concerns, in this Phase comparative studies were pursued in three broad areas of educational development; equity and gender, quality of education and educational policy, and teacher professional development. These three themes were selected by participating universities themselves considering their research interests, educational issues their countries were faced with, international concerns, etc. And then each member university created one or more study team(s) on a research theme selected from among the three above. The papers presented in this issue are selected products of this research project, which of course have been reviewed by referees. Other papers produced by the research project will also appear in the publication series of CICE soon.

Let me take this opportunity to reiterate our special appreciation to not only the authors of the twelve (12) papers that appear in this volume but also all researchers involved in the research projects for their great academic contributions. I do hope this joint research endeavor will further flourish.

Norihiro Kuroda

Director/ Professor, Center for the Study of International Cooperation in Education, Hiroshima University

Affective and Cognitive Characteristics of Nigerian Student-Teachers: Towards Developing an Effective Teacher Education Framework

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Abstract

The study analyzes the affective and cognitive traits of teacher trainees in higher educational institutions in Nigeria. This is with the view to develop an effective teacher education framework by using inputs from the trainees, in-service teachers and teacher educators and incorporate their ideas into the structuring and organization of not only the educational programmes but also the admission processes into such programmes. Using inputs from classroom teachers, teacher trainees, teacher educators as well as basic education students, a compilation of the personal and professional characteristics of an effective teacher was drawn. These are then developed into a comprehensive open- and close-ended questionnaire covering trainees' perception of and attitude to teaching, their belief systems, measures of cognitive and affective characteristics as well as test of personality trait. The main sample for the study comprised three hundred teacher trainees drawn from two universities and one college of education from south-west Nigeria. The findings showed that Nigerian teacher trainees possessed varied and widely spread cognitive and affective behaviour some of which are suited for the teaching profession. However, the study could not determine if these attributes are reflective of their personality types prior to exposure to teacher education or not.

Introduction

In any educational system, the teacher performs the significant function of perpetuating society's heritage and energizing human resources towards social progress. This supports the fact that the teacher is an important variable in the teaching-learning situation. Hattie (2003) observed that the teacher accounts for about thirty percent source of variance in students' achievement. His knowledge, skills and attitude are instrumental in creating the conditions for learning. Indeed, it is reasonable to say that teachers have more influence on the future of young people than do the members of other professions. Lassa (1996, p.16) identified the teacher as 'the initiator of the learning process, the facilitator of learning skills, the coordinator of learning sequence and indeed the pivotal element in the entire education development'. This makes the teacher the most formidable determinant of quality learning.

Some characteristics of an effective teacher have been discussed in several studies. For example, Kemp & Hall (1992) synthesize research to identify specific factors that

contribute to student achievement. It was noted that the teacher factors include attributes such as teacher's knowledge base, sense of responsibility, communication skills, his affective and cognitive skills, in-service training and inquisitiveness. Teachers must possess the vital skills, personality characteristics and behaviours that students perceive to impact their motivation to learn, since it is a teacher's job to connect with each student to foster the passion and excitement to learn (Littkey, 2004, p.12). Therefore, teachers need a solid foundation and orientation towards their professional practice as teachers. This starts with the quality of training they are exposed to. It is an established fact that like all developing countries, Nigeria faces educational challenges in the area of the teacher professional preparations and development particularly in its quest to achieve the goals of Universal Basic Education which are focused on eradicating illiteracy, ignorance and poverty. Such goals include widening access to primary and junior secondary education, period review and effective implementation of the curriculum, Baikie (2002) emphasized that only the teachers who possess the necessary technical competence and professional skills through a well coordinated teacher education can rise to meet the challenges of the crisis that has bedevilled Nigerian's teacher education.

Teacher education in Nigeria is stratified to produce two major qualifications: the Nigeria Certificate in Education (N.C.E) and the Bachelors Degree in Education (B.A/B.Sc. Ed.) Recent federal government policy has made the NCE the least teaching qualification for primary school teachers up to the Junior Secondary School (JSS) level. NCE awarding colleges run a three year post-secondary teacher education. The residues of the Teachers Grade Two qualification where teachers are initially trained for primary schools are also admitted into the NCE course. The quality of the NCE teacher candidates is affected by various admission policies/requirements across the geo-political zones. While the officially declared educationally disadvantaged states demand lesser entry qualifications, the other zones require at least five credit passes including English and Mathematics to qualify for admission. These disparities as well as the organization of such have created skepticism and doubts about actual qualification of NCE products. The undergraduate teacher education, a four-year course combining academic and professional training, is the responsibility of the Faculties of Education of Universities. It trains students for B.A/B.Sc. Education degree and produces teachers for the sciences, humanities or arts. In both institutions, subjects in curriculum and teaching methods largely offered in the penultimate and final years were intended to prepare student-teachers in pedagogical skills and specific subject areas. Links between theory and practice are emphasized in teaching practicum so that students could draw close professional links between their institutions and the schools where they are prepared to function as teachers.

However, Nigeria's teacher-training institutions have been critiqued for inability to produce teachers who are properly grounded in pedagogy and content as well as ability to collaborate professionally in the work environment. For example, educationists observed that the transition from academic theories in universities to classroom practice has often been very sharp suggesting that student teachers are not often properly groomed to put

into practice, current pedagogy and interactive skills that has been theoretically learnt. The system has not produced the desired result for an effective educational system in a globalised world, an innovation required for both teacher pre-service preparation and teacher in-service training.

This above is compounded by the fact that over the years, there has been a serious erosion of teacher's respect and this applies to all levels of education since quality and relevant education depends a great deal on what teachers do with learners. Recent events in Nigeria show that the traditional respect and prestige enjoyed by teachers in the society have been eroded quite considerably (Awanbor, 1996, p.18), leading to loss of interest and attraction to the teaching profession. Consequently, this sordid situation occasioned by low enrolment of teachers in preparation institutions has become a source of worry to teacher educators. Awanbor (1996, p.18) further reported that some teacher-trainees did not appear to be particularly enthused by the training goal of teaching as they indicated that the teaching profession was really not an attractive profession to them. In another development, Omoregie (1994) reports that the attrition rate of teachers, particularly secondary school teachers is attributable to the general poor attitude to the teaching profession. Similarly, Nwangwu (1997) observed that the crisis in Nigerian education system is traceable to lack of interest and low morale due to poor social status. Afe (2001, p.31) opines that the standing of the teaching profession is affected by the social background, adding that the low status constitutes a problem in recruiting competent hands into the profession.

Many studies have been carried out in both developed and developing countries to find out what motivates students in teacher education institutions to choose teaching as a career. In general, the studies have shown that such students choose teaching as a career for various intrinsic, extrinsic and altruistic motives (Bastick, 2000; Ejie, 2006). The assumptions in most of these studies seem to be that students in teacher education institutions will enter the teaching profession after completing their courses of study. Evidence from some studies (Achimugu, 2005; Hall & Langton, 2006; Viatronu, 1999), however, shows that not all such students intend to teach after graduation. The studies noted a group of education graduates referred to as the 'uncommitted'-- those who decided not to take teaching as a job immediately after they graduate and who regard teaching as irrelevant to their future goals. In Nigerian situation, the uncommitted group are quite large. Moreover, studies have shown that many of those who join the profession after graduation leave early because such people had a career plan other than teaching. These invariably have an overall negative effect not only on the quantity but also on the quality of teachers produced for schools.

The trends and characteristics of globalisation perhaps call for a total re-invention or repackaging of the teaching profession in Nigeria. The teacher in the globalised environment must be prepared to think globally and act locally in matters relating to education. He must be able to create a learning-friendly and animating environment in the classroom. The Nigerian teachers must be able to participate effectively in

the contemporary ICT imposed revolution in knowledge creation, distribution and management. Schools exist to impart knowledge and skills. It is therefore imperative for schools to move with time in matters relating to knowledge creation and distribution. The core concern therefore is how do we attract quality potentials/candidates into teaching in Nigeria? What cognitive and affective characteristics should we examine in potential teacher candidates and how do we use this to establish an effective admission processes and result-oriented framework for teacher education in Nigeria? These concerns drive this study.

Theoretical Frameworks

Brophy & Good (1974) cited in Fang (1996, p.47) argued that a better understanding of teachers' belief system or conceptual base will significantly contribute to enhancing educational effectiveness. The Theory of Personality Types chiefly backed this study, though supported by Teacher Cognition and Reflective Teaching Practice.

Holland's Typology of Personality and Congruent Occupations (1973, 1974) argued that the choice of a vocation is an expression of personality and based on this, proposed six personality types- realistic, investigative, artistic, social, enterprising and conventional. The theory notes that social type of a person is more successful in teaching profession, as he/she prefers activities that involve and develop others and are sociable, friendly, cooperative and understanding. In addition, Meyers & Meyers (1980) developed the Meyer-Briggs Type Indicator (MBTI)- a psychometric assessment designed to measure psychological preferences in how people perceive their world and make decisions, and thus categorized personality along four dimensions- how they focus their attention or get their energy (Extraversion or Introversion), how they perceive or take in information (Sensing or iNtuition), how they prefer to make decisions (Thinking or Feeling) and lastly, how they orient themselves to the external world (Judgment or Perception). The four preferences are to interact in complex ways to produce sixteen psychological types. According to Meyers & Meyers (1980) teachers are ENFJ (Extrovert, Intuitive, Feeling and Judgemental). This suggests that teachers are outgoing, enjoy connecting with people, and are intuitive, flexible, open-minded, highly organized and decisive. While Kent and Fisher (1997) noted that MBTI is uniquely suited to applications in teaching and learning in the field of education when examining personality self description, there are criticisms by McCrae & Costa (1989, p.19) that the Meyer-Briggs Type Indicator measures only four dimensions of personality and therefore proposed the Five Factor Model, based on five broad dimensions- conscientiousness, emotional stability, agreeableness, extraversion and openness to experience- which according to them, can be found in virtually all personality types. In relation to teaching, Allen & Whitely (1968) noted two important dimensions of personality in teacher effectiveness, cognitive flexibility & psychological openness. The major argument here is that the knowledge of teacher personality type can reveal the foundation of their education philosophy. According to Fairhurst & Fairhurst (1995),

understanding one's own personality type is an important part of student-teacher learning process. They further noted that understanding the difference between the teacher's own personality characteristics and their students' personality can be beneficial when attempting to improve students' learning and achievement scores. This perspective is also related to theory of Teacher Cognition which deals with understanding what teachers think, know and believe, that is, unobservable dimension of teaching (Borg, 2009, p.165). A core component of teacher cognition is teacher belief systems which are described as dynamic in nature, undergoing change and restructuring as individuals evaluate their beliefs against their experiences (Thompson, 1992, p.132). The importance of teachers' beliefs within teacher education rests within the constructivist's conception of learning and the reflective approach to teaching. Constructivist holds that beliefs are thought of as critical in terms of what and how the student teacher makes sense of their learning in the teacher education programme. Pre-existing beliefs are so influential that attempts to change teaching styles are ineffective, unless these beliefs are directly questioned (Johnson, 1988, p.169), since, according to Pajares, (1992, p.309) the earlier a belief is incorporated into the belief structure; the more difficult it is to alter. As a result, pre-service teacher education may find itself competing with previously established beliefs that play an active role in the acquisition of new knowledge. This dimension of cognition therefore emphasizes the importance of teacher trainees deconstructing their own prior knowledge and attitudes, comprehending how these understandings evolved; exploring the effects they have on actions and behaviour; and considering alternate conceptions and premises that may be more serviceable in teaching. Critical analysis and structured reflection on formal course knowledge and everyday practical experience are therefore encouraged in teacher education. It also forms the core Reflective Teaching Practice which also underlies the professional knowledge bases of teachers. These knowledge bases are centred on knowledge of self, knowledge of content, knowledge of teaching and learning, knowledge of pupils, and knowledge of context within schools and society. Preparation for working with diverse populations in an ever-changing cultural and global context requires teachers who are knowledgeable, caring, responsive and reflective; therefore; teacher education curriculum including teacher admission processes should accommodate all these conceptions to produce an effective and quality teacher for the 21st century classrooms. These culminated in the conceptual framework that guides the study.

Conceptual Framework

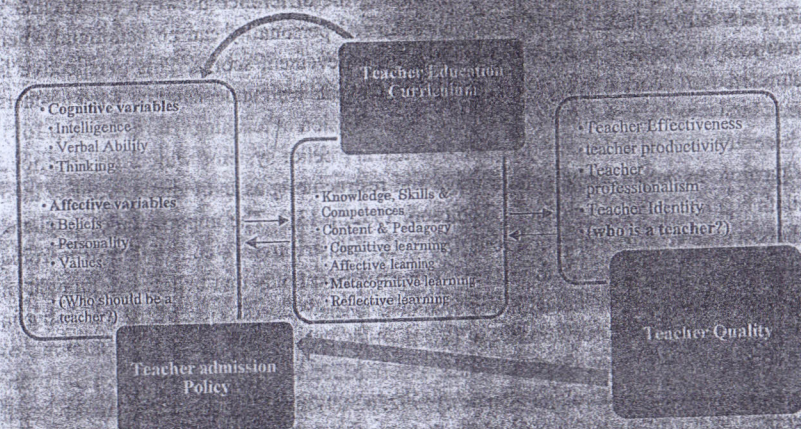


Figure 1: Teacher Education Framework connecting admission, curriculum and output.

The framework establishes a core relationship between teacher admission policy, curriculum and quality output, showing a kind of input-process-output relationship, each component feeding and impacting on the other. The core question, 'who is a teacher?' should first be addressed through the screening process which should move beyond test of academic ability and focus on determining the cognitive traits (intelligence, verbal ability and thinking levels) as well as affective traits (attitude, values, beliefs, personality) of would-be teachers. These should serve as inputs which teacher education curriculum should build upon – through instructional practices, new learning, re-learning, construction and deconstruction of knowledge and belief, reflection, and mentoring – to ensure teacher quality, quality also being a defining characteristic of 'who should be a teacher'. Therefore, consideration of teacher candidates' cognitive ability and personality types suited for teaching should form the core of admission criteria. These characteristics should also be considered in developing effective and quality oriented teacher education curriculum that would be able to further imbue the trainees with the expected teaching quality with focus on classroom effectiveness, commitment to professionalism which shall over time improve teacher's self-identity and social recognition.

Objectives

The objectives of this study from which relevant research questions are drawn include:

1. To investigate the characteristics of an effective teacher at all levels of education.
2. To determine the cognitive and affective characteristics of Nigerian teacher-trainees,

their motives for entering into education courses, their perception of teaching profession, as well as their future career plans.

3. To harness the findings from 1 and 2 as recommendations towards developing:
 - i. A framework for admission processes into teaching in Nigeria.
 - ii. A framework for effective teacher training processes in Nigeria.
4. To analyse how these frameworks can be utilised to enhance teachers' productivity.
5. To draw further necessary conclusions from issues that may arise in terms of challenges faced by teachers in their extended professional preparation and development.

Methodology

This study is concerned primarily with Nigerian teacher-trainees covering Nigerian university undergraduates as well as students of Colleges of Education. It determines the affective and cognitive characteristics of the would-be teachers with the intention of cataloguing a professional identity of teachers in Nigeria. Using inputs from classroom teachers, teacher trainees, teacher educators, as well as basic education students, a compilation of the personal and professional characteristics of an effective teacher was drawn. These are then developed into a comprehensive open- and close-ended questionnaire covering trainees' perception of and attitude to teaching, their belief systems, and measures of cognitive and affective characteristics as well as test of personality trait. It also involves a survey of both in-service teachers of basic and secondary schools and teacher-trainees in Colleges of Education and Faculties of Education from the South-west geo-political zone, Nigeria. In this wise, a federal College of Education and a federal University as well as a state-owned were randomly selected from this zone, making a total of 3 teacher training institutions. The teacher-trainees were drawn from among the final year students of each institution. This is because they have had adequate exposure to both content and pedagogic courses in the course of their training and are already exposed to practical orientations in terms of teaching practice. One hundred students were randomly selected from each university/COE, totalling three hundred (300) subjects, which covered education students from different course orientations- science and technology, social sciences, languages and humanities. In addition, Sixty-three in-service teachers, fifty teacher educators and two hundred secondary school students were randomly selected from the geographical areas of the institutions sampled to write about their best teacher. Deductions were made from their write-ups about the qualities of an effective teacher. Research instruments include:

1. A checklist of characteristics of an effective teacher was drawn by basic/secondary school students and in-service teachers. To draw the checklist, the subjects here were required to write a composition on their most effective teacher, from which cognitive and affective characteristics were inferred.
2. Three comprehensive, self-assessment questionnaires (one for cognitive

characteristics, one for affective characteristics and the third focus on their belief systems) for teacher trainees with focus on their cognitive and affective characteristics, their cognition and belief systems as related to teaching and learning, their attitude to and perceived suitability for the teaching profession. Both content and face validity were done, and a reliability coefficient of 0.78 established through test-retest. The relevant data were collected at different times across the groups, though in all, data collection spanned 10 weeks.

Findings

Descriptive Statistics

A total of 300 teacher trainees (54.4% male, 45.6% female) were sampled from teacher education institutions. The most dominant age grade among the trainees was between 21-24 years with average percentage of 51% while 16-20 years were 28% which indicate a level of maturity for tertiary education. Age above 30 were very minimal (5.7%) indicating a very active and agile population as teacher trainees. The mode of admission into education programmes is the same across all the institutions, though differ across the trainees. 72% of the respondents entered into their programme through Unified Tertiary Matriculation Examinations which is the widely recognised mode of admission into Nigerian institutions. However 22.5% got admitted through direct entry, signifying that they have had three-year training at the College of Education. Others got admitted through preliminary and diploma programmes or were transferred from other courses to Education, often as a result of low achievement in their course of choice. Other supportive respondents include Sixty-three in-service teachers, fifty teacher educators and two hundred secondary school students who were randomly selected from the geographical areas of the institutions sampled.

Qualities of an Effective Teacher

In the context of this study, an effective teacher should inspire and influence learning. The positive and negative behaviours exhibited by teachers determine, to a large extent, their classroom effectiveness and the impact they have on students' learning and achievement. Several characteristics of teacher responsibilities and behaviour covering his/her personality, classroom management, quality and implementation of instruction, monitoring of students' progress, nurturing students' potential and teacher's sense of professionalism determine teaching effectiveness or otherwise of a teacher. A checklist of attributes of an effective teacher drawn from secondary school students' writings, as well as summations from in-service teachers, teacher educators and the teacher trainees which form the pool of responses used to determine the qualities or characteristics. All respondents which comprised 613 in all were required to write a one page composition

on their most effective teacher. Each composition was analysed to highlight the core attributes. On the whole, 27 core attributes/characteristics were drawn from the summations of the respondents. This is summarised in Table 1:

Table 1: Attributes of a effective teacher

Attributes	Frequency	%	Type
1. Skilful/teaches well	75	12.2	C
2. Kind	61	9.95	A
3. Intelligent	55	8.97	C
4. Friendly, social with good interpersonal relationship	47	7.66	A
5. Mentors, motivates, counsel	47	7.66	A
6. Self-disciplined	36	5.87	A
7. Committed, diligent, dedicated	30	4.89	A
8. Knowledgeable/mastery of subject	30	4.89	C
9. Role model/well behaved	23	3.75	A
10. Humble	21	3.42	A
11. Hardworking	20	3.26	A
12. Neat, decent and attractive	19	3.09	A
13. Caring and loving	15	2.45	A
14. Patient, understanding and tolerant	15	2.45	A
15. Punctual	15	2.45	A
16. Respectful/polite	13	2.12	A
17. Honest	12	1.95	A
18. Organized	12	1.95	A/C
19. Good class control	10	1.63	A
20. Helpful	10	1.63	A
21. Integrity/high moral standards	10	1.63	A
22. Modest/simple	10	1.63	A
23. Generous	8	1.30	A
24. Creative	7	1.14	C
25. Communicates and facilitates learning	6	0.97	C
26. Experienced	4	0.64	A
27. Assertive	2	0.32	C

Note: Type indicates affective (A) or cognitive (C) characteristics. Source: Field work 2011

From the table, it can be observed that respondents in all generated more affective traits than cognitive characteristics, though this is more visible in the write-up of the secondary school students. However, ability to teach well (which encompasses other attributes) occurred most frequently in the write-ups, followed by kindness and intelligence. Key attributes expected of good teacher according to the teacher trainees

themselves include subject matter mastery, emotional stability, positive attitude, high intellectual capability, proficiency in communication and admirable personality. To them, good personality is more important to teaching than cognitive skills or pedagogical knowledge. 56.2% of the subjects believed that teachers are made not born, signifying the importance of professional training and practice in teaching. By implication, one can deduce that the respondents believe that there are specific characteristics amenable to teaching, and that the trainees expect that the teacher education programme should help them develop the required attributes.

Cognitive Characteristics of Nigerian Teacher-Trainees

Studies (Anderson, 1993; Bernardo, 1994; Carroll, 1993; VarLehn, 1993; 1996) have identified the following as measures of cognitive characteristics- intelligence, intellectual competence, verbal ability, mental alertness, knowledge base, communication skills, critical thinking skills, problem solving skills, rational and logical thinking, analytical thinking, initiative, innovation and creativity, independent thought and judgement, self management and control; though the study could not exhaustively measure these among the trainees. However, as a measure of intellectual competence and knowledge base, especially about teaching, their college/university grades were used. The data collected showed that the highest proportion of the respondents (39.6%) falls within second class lower division, followed by Third Class (28.2%), Second Class Upper (23.7%), First Class (4.6%) while Pass grade has the least representation of 3.9%. Though the students' grades may result from a number of factors, but the spread indicates an average level of intellectual competence as well as knowledge base. In addition, students were given a self-evaluation questionnaire with 25 variable constructs, on which they are to rate themselves on a scale of 1-6. The results are summarised in Table 2.

Table 2: Cognitive characteristics of Nigeria Teacher Trainees

Variables	6 (%)	5 (%)	4 (%)	3 (%)	2 (%)	1 (%)
1. Certainty about potential solutions to problems	40.9	19.9	7.1	7.4	13.9	10.8
2. Commitment to particular points of view	27.4	28.1	5.9	27.4	7.6	3.5
3. Openness to other people's opinion & suggestions	34.8	9.1	15.2	35.1	0.3	5.4
4. Believe that knowledge is constructed	23	27	10.4	30.2	1.4	6.7
5. Believe knowledge must be evaluated within contexts	33.1	34.8	23.3	--	6.1	2.7
6. Solution to a problem is derived from one correct answer	6.1	20.9	23.6	31.8	9.5	8.1
7. Solution to problem depends on the context	18.9	9.5	20.6	30.1	3.0	17.9
8. Making compromises is a fact of life	21.3	13.2	16.6	27	7.1	14.9
9. Reliance on illogical analysis when solving a problem	5.3	13.9	1.4	26.8	15.6	36.9
10. My opinion is as good as anyone else	2.7	27.4	12.5	35.5	9.5	12.5
11. Acceptance of diversity in people's opinion	27	34.8	7.4	18.6	3.4	8.8
12. Truth is relative	24.4	31.4	8.7	11.8	9.8	13.9
13. Ability to reflect before taking actions	45.8	26.8	1	9.5	6.1	10.8

14. Ability to reflect on people's thoughts, beliefs & intentions	27.5	15.3	25.8	25.4	0.7	5.4
15. I do organize information in my mind	28.1	24.7	14.2	18.6	--	14.2
16. High capacity to commit things to memory	17.6	28.5	20.3	18.3	2.7	12.2
17. Ability to express emotions positively or negatively	17.6	28.7	20.7	6.0	12.9	13.6
18. Reliance on others to formulate my thoughts for me	8.8	9.2	9.8	3.4	23.4	45.4
19. Voicing educated and appropriate opinions	9.0	18.7	16.3	16.6	30.8	0.7
20. Consideration for consequences of my actions before I act	29.3	16.3	23.1	19.3	5.4	6.1
21. Possess the ability for independent thought/judgement	33.2	32.9	12.9	4.1	2.7	4.2
22. Often sceptical of suggestions until tested	10.8	23.1	22.7	20.7	5.8	16.9
23. Consider the merits of various viewpoint before decision	36	31.7	0.3	4.3	17.7	3.7
24. Synthesize different viewpoints into a workable solutions	24.7	43.7	18.3	11.3	3.7	8.1
25. Rely less on authority to determine what is right or wrong	16.9	23.4	22.7	33.9	0.3	2.7

Key: 6= definitely my style, 5= often my style, 4=my style 50% of time, 3=sometimes my style, 2=hardly ever my style, 1= not my style. Source: Field work 2011

Cognitive characteristics possessed by the teacher trainees include self assurance, open-mindedness, pragmatism/practicality, reflection, organisation, expressiveness and critical thinking, while affective characteristics include cooperativeness, self confidence, friendliness, emotional stability, goal and value oriented, fairness, time-consciousness, though these attributes are spread widely among them.

Affective Characteristics of Nigerian Teacher-Trainees

Measure of affective characteristics include self concept, self efficacy, sense of values, motivation, cooperation, tolerance, patience, compassion, sense of direction, sense of focus, sensitivity. Stronge (2002) has shown the following attitudes to be necessary to become successful teachers: caring, fairness, respect, enthusiasm, motivation and dedication; Socket (1993) added attitude towards morality and ethics; and Darling-Hammond (1997) sensitivity towards learners' feelings to the list. These traits correlated with the list generated from the write-ups by the respondents. According to them, predominant affective attributes include cooperation, attention to details, good relationship/friendliness, impartiality, self-concept, self-efficacy, self-confidence, listening/attentiveness, while the least developed attributes include carefree attitude, others are present on the average level. These are captured in Table 3.

Table 3: Affective characteristics of Nigerian teacher-trainees

Variables	6 (%)	5 (%)	4 (%)	3 (%)	2 (%)	1 (%)
1. I often cooperate with my colleague/classmates	48.5	14.2	18	4.7	9.2	5.4
2. I give attention to details	40.3	29.2	8.5	16.3	3.1	2.7
3. I often demonstrate self confidence in doing things	28.3	40.7	15.3	6.0	2.7	5.3
4. I maintain good relationship with people who are less	43.2	32.1	9.0	10.1	--	5.4
5. I form and maintain positive interpersonal relationships	33.8	39.5	17.2	1.4	--	8.0

6. I do manage my emotions without allowing others to know	27.3	48.3	9.1	6.1	3.4	5.4
7. I do express my emotions in a socially acceptable manner	27.0	41.2	14.5	7.4	6.4	3.4
8. I blame others for my failure	6.8	23	6.8	4.1	11.3	47.3
9. I take responsibilities for my actions	38.9	33.8	15.3	8.7	0.3	2.7
10. I have good relationship with people who are not my family	49.7	19.3	15.9	6.1	0.3	8.8
11. I set my own goals and personal values	37.8	24.3	9.5	15.5	3	9.8
12. I allow others to set my goals for me	7.4	27.4	12.8	4.1	16.2	32.1
13. I often weigh the impact of my emotions on my behaviours	21.3	31.8	15.3	19.9	2.7	8.7
14. I do react impulsively to situations	13.5	26.4	6.8	41.6	3.7	8.1
15. I readily agree to engage in activities with colleagues	15.9	23.6	23.3	25.3	8.0	3.3
16. I pay attention to what others have to say	18.7	42.7	3.7	21.6	9.8	2.7
17. I involve others in decisions on issues that affect my group	31.1	38.0	6.7	13.7	7.0	2.7
18. I keep my judgements within the limits of my competence	28.4	30.7	16.9	9.8	11.5	2.7
19. I get angry when people make jokes about me	13.2	13.9	10.2	23.7	26.4	12.5
20. I am willing to share jokes	2.7	2.7	9.8	23.3	34.1	27.4
21. I have positive expectations of people	17.3	19.7	29.3	9.5	15.2	8.1
22. I leave things wherever, I feel like	6.1	23.3	25.3	12.8	16.9	15.5
23. I do things at the expected/appropriate time	27.4	31.7	8.8	13.2	12.5	6.1
24. I am impartial when judging others	48.6	13.9	4.7	9.8	8.1	--

Key: 6= definitely my style, 5= often my style, 4= my style 50% of time, 3= sometimes my style, 2= hardly ever my style, 1= not my style. Source: Field work 2011

Students' Motives for Entering into Education Courses

For those who came into education through mainstream admission, there were several reasons for the choice of education as course of study- 61.8% agreed to their inability to meet the admission requirement in their course of choice while only 22.6% however cited their passion to teaching as the major motivating factor. Other reasons cited by the respondents include wrong combination of subjects, late admission, family influences and teachers/peers influences. By implication, we have 77.4% of unwilling teachers among this group. However, 53.7% of them indicated their willingness to teach after graduation, indicating a change in attitude to teaching during the course of their training. The study also sought to know from the subjects (teacher's trainees) if teaching job scares them and result revealed that contrary to the expected result 85.6% of the respondents disagreed that they are scared by teaching job leaving only 7.2% of the respondents who genuinely admitted their fear for teaching job. About 31.1% admitted that they lack the ability and skills for a full time class room teaching. 56.8% of the respondents also believe that knowledge about teaching comes from practice and training. Finally, 22.1% admitted that their training is for certification purposes. It can then be deduced that majority of the teachers trainee has an unfavourable disposition towards the teaching profession. We tend to determine if this disposition is borne out of a set of belief systems. Table 4 established this.

Table 4: Teacher Trainees' Belief Systems

Variables	SA (%)	A (%)	U (%)	D (%)	SD (%)
1. I possess the ability to teach	32.3	38.9	4.7	16.9	6.8
2. I shall be a role model to my students	50	31.7	6	5.7	4.3
3. I have a positive attitude that will enhance my teaching	55.9	24	9.7	7.3	2.8
4. I am interested in making a breakthrough learning & teaching	31.4	53.3	-	10	-
5. I easily adjust to new thinking	41.9	46.6	7.9	3.6	-
6. I will be fulfilled in my teaching career	-	46.2	3.6	32.5	17.7
7. I need to consolidate myself in my subject area	40.4	34.3	7.2	15.2	2.9
8. My training as a teacher has made me more focused	47.3	41.0	0.3	7.2	-
9. Teaching personality is more important than cognitive skills	16.6	45.8	8.7	28.9	-
10. Teaching is about learning a series of tricks	19.5	40.4	0.2	18.3	-
11. Teaching involves coordinating knowledge	50.9	32.7	7	9.3	-
12. Teaching is helping students learn	54.4	45.6	-	-	-
13. Teaching involves different learning styles	57.7	-	39.5	2.8	-
14. Teaching should go beyond the classroom	71.8	25	3.2	-	-
15. Teaching should be systematic	75.4	19.3	-	3.6	-
16. Teaching goes beyond transmitting knowledge	44.6	38.2	9.3	6.7	-
17. Teaching involves different learning styles	62.4	34.4	2.7	0.4	-
18. A teacher must be intellectually capable	59.2	29.9	7.8	3.1	-
19. A teacher should be able teach & impact knowledge effectively	65.4	25.3	2.7	3.3	2.7
20. Attitude of a teacher will determine his learners success	68.7	21.7	-	8.1	-
21. A teacher must be highly proficient with communication skills	67.1	15.9	16.9	-	-
22. A teacher must have a good mastery of subject matter	65.5	25.7	0.7	8.0	-
23. A teacher must have an admirable	49.7	38.9	5.4	3.4	2.7
24. A teacher must be emotionally stable	55.7	35.1	6.4	2.7	-

Key: SA- Strongly Agree; A -Agree; U -Undecided; D- Disagree; SD- Strongly Disagree

Source: Field work 2011

Teacher trainees' belief systems include belief about self and ability to teach, about teaching, about learning and about who should be a teacher. The strongest belief system focussed on teaching which they believe should be systematic, should go beyond the classroom and involve different learning styles. Despite their strong beliefs about who should be a teacher (should impart knowledge, possess positive attitude, proficient communication skills and master the subject matter), they could not strongly see themselves possessing the abilities required to teach effectively as students rated themselves rather low on their the ability to teach and willingness to break through in learning & teaching.

Other Findings

1. The most common entry into teacher education programmes is through the Unified Matriculation Tertiary Examination (UMTE), a jointly administered examination that

places candidates into different higher institutions according to their scores. Higher scores are admitted into universities while lower scores are placed in colleges of education.

2. About 61.8% of the respondents had to study education due to their inability to secure admission into more lucrative courses, while only 22.6% expressed an initial intention to study education.
3. After exposure to training, about 53.7% of trainees intend to teach after graduation. This gives a gain of 8.1% from initial reluctance to teach.
4. On their readiness and ability to teach, 31.1% of respondents admitted they lack the required skills and abilities for teaching, while 79.9% believe that they have a positive attitude that can enhance their practice as teachers. Though mostly uninterested, 81.7% believe that if they are peradventure found in the teaching profession, they would act as role models to their students. In contrary, about half of them (50.2%) feel they would not be fulfilled as a teacher, though they admitted their training have made them more focused.

Discussions and Implications

The core questions to address here are: how do we use the findings as recommendations for (i) enhancing admission process into teaching; (ii) developing a standardized and robust teacher education programmes; and (iii) ultimately, enhancing teacher effectiveness in schools?

The reality of what teachers face in the classroom upon graduation is daunting, making it imperative that decisions about who to admit into teacher education programmes are significant and critical (Casey and Childs, 2007). This is because teachers need to be able to handle challenging situations and experiences far beyond what their trainings prepare them for (Feiman-Nemser, 2003). The objective of students' recruitment into teacher education should therefore be to admit high quality candidates. As Darling-Hammond (2000) noted, the admission processes are expected to select candidates who will succeed in the pre-service education and become good teachers. There is insufficient evidence to support the notion that standardized tests are a suitable admission mode when determining which teacher candidates are capable of becoming highly effective teachers. Studies have demonstrated there is no strong correlation between standard test scores and effective teaching as measured by students' teaching practice grades and supervisor feedback (Baskin, Ross and Smith, 1996), therefore, changing admission standard is required in order to ensure that high quality students are admitted to education programmes. While academic rating of students is very important determinants of IQ and other academic scores, such should be supported by other measures. Casey and Childs (2007) further observed that the relationship of admission criteria to the knowledge, skills and attitudes beginning teachers need and the preparation provided by the programmes need to be made explicit. To design effective admission requirements into teacher

education in Nigeria, the following criteria for admission are recommended for selecting candidates into the teacher education, borrowing from internationally accepted practices. These include:

1. Smith and Pratt (1996) suggested the use of a written profile in conjunction with academic rating. Such requires applicants to describe the relevant experiences or why they are interested in teaching. Caskey, Peterson and Temple (2001) argues that a profile can reveal motivation related to pupils needs, congruence with the philosophy and mission of teacher education programme, a vision for need for quality in schools and the ability to express oneself in a compelling manner in writing. Written profiles should be reviewed regularly to be sure they provide opportunities for teacher candidates to demonstrate their knowledge, skills and attitudes.
2. Interviews are also suggested. Interviews are said to reveal information about language proficiency, attitudes and interpersonal skills (Casey & Childs, 2007). Jacobovitz (1994) proposed that interviews are necessary to ensure selection of applicants who understand the moral and ethical dimensions of teaching. Therefore, as part of the post-UTME screening process for teacher education, interviews can be conducted for applicants who have fulfilled other admission criteria.
3. Also suggested is letters of reference which can be open- or close-ended, detailing the key attributes and values of each applicant including personal characteristics and academic competences. However, there are concerns about objectivity of reference letters, since referees are often selected by the applicants.

A significant component of preparing future teachers is to equip them with professional and personal qualities as teachers and instilling the basic disposition and behaviour as teachers. Teacher education programme need to create balance between content knowledge, pedagogical knowledge, pedagogical skills and attitudes. It is important to distinguish which knowledge, skills and attitudes that beginning teachers need and which can be learned in the teacher education programme. Those that are not already possessed by applicants prior to entry into the programme should be learned in the programme. There should be explicit instruction to affect pre-service teachers' attitude, such as openness to learning through mentoring and reflective practices. Pre-service and new teachers need to learn situational relevant approaches to subject matter, how to think on their feet, how to size up situations and decide what to do, and to study the effects of their decisions, and how these will affect their planning (Ball & Cohen, 1999). In addition, the objectives of teacher education should include cultivating in the teachers the attitude of continuous learning.

In creating effective balance, mentoring should be an integral part of teacher education and professional development process. Mentoring is a process of building mutually beneficial partnership among teachers, i.e. between teacher educators, experienced teachers and teacher trainees, to help develop the skills, behaviours and insights to the teaching goals and ensuring quality outcome. It involves a process of

socialization/induction to the teaching profession, adjustment to classroom, school and community procedures and mores, and the development of effective instructional and classroom management skills.

The use of reflective practices in training should also be emphasized. Reflective practice often referred to as careful review of and thoughtfulness about one's own teaching process has been described repeatedly in studies of teacher effectiveness. Effective teachers continuously practice self-evaluation and self-critique as learning tools. Reflective teachers portray themselves as students of learning- they are curious about the art and science of teaching and about themselves as effective teachers, they constantly improve lessons, think about how to reach particular students, and seek and try out new approaches in the classroom to better meet the needs of their learners. Through reflection, effective teachers monitor their teaching because they want to be better teachers and to make a difference in the lives of students. Reflective practices should be core of teacher education processes because they are crucial to lifelong learning and a professional necessity. Reflective teachers should therefore possess certain characteristics – cognitive and affective that predisposes them to reflection. Teacher educators should model reflection in their teaching, give trainees tasks/assignments that involve reflection, and during teaching practice, should be encouraged to keep journals and diaries where they not only record their school experiences, but also meditate and think critically about them. In this sense, we have teacher trainees 'grow' with reflection even before graduation from colleges. On the whole, teacher educators should create educational contexts and opportunities that support and sustain trainees as they navigate through their training and practice experiences. These approaches should also be incorporated into in-service teachers through professional developments that emphasize lifelong learning, collaboration, peer tutoring, team planning and teaching, and lesson study.

Conclusion

Motivation, positive disposition, a strong knowledge base, possession of adequate skills and competencies are some of the important factors which shape teacher trainees perception of their training and ultimately, their effectiveness as teachers. The psychological type theories as discussed in the framework have been found to support the connection between individual differences in personality profiles and particular professional choices (Rushton, Mariano & Wallace, 2012). The core of this paper was to profile some core cognitive and affective characteristics that a teacher-candidate should possess to position him/her as effective teacher. Most of these characteristics mentioned by the respondents were supported by literature (Darling-Hammond, 1997; Socket, 1993; Stronge, 2002). While it is impossible for an individual to possess all the core characteristics, the admission process into teacher education should develop effective measures of determining these traits in teacher candidates. This would serve several purposes- to determine teacher candidates' suitability for teacher education and teaching,

to serve as input for structuring teacher education curriculum and instructional processes including pre-service mentoring relationship, configuration of classroom learning environment and adaptation of teacher educator's teaching styles with student-teachers' learning styles.

References

- Achimugu, L. (2005). *The Agonies of Nigerian Teachers*. Lagos: Heinemann Educational Book (Nig.) Plc.
- Anderson, J.R. (1983). *The architecture of cognition*. Cambridge, MA: Harvard University Press.
- Afe, J.O. (2001). *Reflections on becoming a teacher and challenges of teacher education*. Inaugural Lecture Series 64, Benin: University of Benin Press.
- Allen, T.W. & Whitely, J.M. (1968). *Dimensions of effective counselling: cognitive flexibility and psychological Openness in counsellor selection*. Columbus, Ohio: Charles Merrill Publishing Co.
- Awanbor, D. (1996). *An assessment of teachers' attitude towards teaching profession*. Midwestern Nigeria: Nigeria Press.
- Baikie, A. (2002). *Retention of teachers and their conditions of service in recurrent issues in Nigeria education*. Zaria: Tamara Publishing CO. Ltd.
- Ball, D. & D, Cohen. (1999). Developing practice, developing practitioners: towards a practice-based theory of professional education. In G. Sykes & L. Darling-Hammond (Eds.), *Teaching as the learning Profession: handbook of policy and practice*. (pp. 3-32). San Francisco: Jossey Bass.
- Baskin, M.K., Ross, M. & Smith, D. (1996). Selecting successful teachers: The predictive validity of urban teacher selection interview. *Teacher Educator*, 32, 1-21.
- Basom, M., Rush, R.T. & Machell, J. (1994). Pre-service identification of talented teachers through non-Traditional measures: A study of the role of affective variables as predictors of success in student Teaching. *Teacher Education Quarterly*, 21(2), 47-57.
- Retrieved from http://www.teqjournal.org/backvols/1994/21_2/sp94_basom.pdf (Accessed on April 6, 2012).
- Bastick, T. (2000). Why teacher trainees choose the teaching profession: Comparing trainees in metropolitan and developing countries. *International Review of Education*, 46, 343-349.
- Bernardo, A.B.I. (1994). Problem-specific information and the development of problem-type schemata. *Journal of Experimental Psychology: Learning, Memory, Cognition*, 20(6), 1322-1340.
- Borg, S. (2009). Language and teacher cognition. In Burns, A & Richards J.C (Eds.), *The Cambridge guide to Second Language teacher education*. (pp.16 3-171). Cambridge: Cambridge University Press.
- Brophy, J.E. & Good, T.L. (1974). *Teacher-student relationships: causes and consequences*. New York: Holt, Rinehart and Winston.
- Carroll, J.B. (1993). *Human cognitive abilities: a survey of factor-analytic studies*. UK:

- Cambridge University Press.
- Casey, C.E. & Childs, R. (2007). Teacher education program admission criteria and what beginning teachers need to know to be successful teachers. *Canadian Journal of Educational Administration and Policy*, 67, 1-18.
- Caskey, M.M., Peterson, K.D. & Temple, J.B. (2001). Complex admission selection procedures for a graduate Pre-service program. *Teacher Education Quarterly*, 37, 7-21.
- Costa, P.T. & McCrae, R.R. (1992). "Normal personality assessment in clinical practice: The neo personality inventory". *Psychological Assessment*, 4, 5-13.
- Darling-Hammond, L. (2000). Teacher quality and student achievement. *Educational Policy Achievers Analysis*. Retrieved from <http://epaa-asu.edu/epaa/usn1.html> (Accessed on March 21, 2012).
- Darling-Hammond, L. (2006). Assessing teacher education: The usefulness of using multiple measures of assessing programme outcomes. *Journal of Teacher Education*, 57, 120-138.
- Darling-Hammond, L. (1997). *The right to learn*. San Francisco: Jossey-Bass.
- Dybdahl C.S., Shaw, D.G. & Edwards, D. (1997). Teacher testing: Reason or rhetoric. *Journal of Research and Development in Education*, 30, 248-254.
- Ejeh, M.U. (2006). Students reasons for entering nigeria primary education and their career plans. Retrieved from www.nedOrbit.com (Accessed on June 10, 2012).
- Fairhust, A.M. & Fairhust, L.L. (1995). *Effective teaching effective learning: making personality connection in your classroom*. Palo Alto, CA: Davis-Black.
- Fang, Z. (1996). A review or research on teacher beliefs and practices. *Education Research*, 38 (1), 47-65.
- Federal Republic of Nigeria (2004). *National policy on education*. (3rd ed.). Yaba: NERDC Press.
- Feiman-Nemser, S. (2003). What new teachers need to learn. *Educational Leadership*, 60, 25-29.
- Hall, D. & Langton, B. (2006). *Perception of the status of teachers*. New Zealand: Ministry of Education.
- Hattie, J. (2003). Teachers make a difference: what is the research evidence? Paper presented at the Australian Council for Educational Research Conference 'Building Teacher Quality: What does the Research tell us?' 19-21 October 2003, Melbourne. Retrieved from www.acer.edu.au/workshops/documents/Teachers_Make_Makea_Difference_Hattie.pdf (Accessed on June 10, 2012).
- Holland, J.L. (1973). *Making vocational choices: A theory of career*. Englewood Cliffs, NJ: Prentice Hall.
- Holland, J.L. (1974). Vocational guidance for everyone. *Educational Researcher*, 3, 9-15.
- Jacobowitz, T. (1994). Admission to teacher education programs: Goodlad's sixth postulate. *Journal of Teacher Education*, 45, 46-52.
- Johnson, K. (1988). Changing teachers' conceptions of teaching and learning. In Calderhead, J. (Ed.) *Teacher's professional learning*. (pp.169-195). Lewes: Falmer.
- Joram, E. & Gabriele, A. (1998). Pre-service teacher's prior beliefs: Transforming obstacles into opportunities. *Teaching and Teacher Education*, 14(2), 175-191.
- Kemp, L. & Hall, A. H. (1992). *Impact of effective teaching on student achievement and teacher performance: Equity and access implications for quality*. Jackson, MS: Jackson State University.
- Kent, D. & Fisher, D. (1997). Associations between teacher personality and classroom environment. Paper presented at the Annual Meeting of the American educational research association, Chicago, IL. ERIC Document reproduction service No. ED 407395. Retrieved January 28, 2013.
- Lassa, P.N. (1996). *Teacher education in the 21st century*. Kaduna: N.C.C.E.
- Litkey, D. (2004). The big picture: Education is everyone's business. *Association for Supervision and Curriculum Development*. Alexandria VA.
- McCrae, R.R. & Costa, P.T. (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the Five Factor Model of personality. *Journal of Personality*, 57(1), 17-40.
- Mayers, I. B. & Mayers, P.B. (1980). *Gifts differing: Understanding personality type*. Mountain View CA: Davies Black Publishing Company.
- Nwangwu, N. A. (1997). The environment of crises in Nigerian educational system. *Co-Operative Education* 33(1), 87-95.
- Omerigie, N.O. (1994) *Analysis of attrition rate of teachers in secondary school system in Bendel State from 1986 1990*. Ph.D. Thesis, University of Benin, Benin.
- Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-333.
- Phillips, M.B. & Hatch, J.A. (1999). *Why teach? Prospective teacher's reason for entering the profession*. Paper presented at the Reconceptualising Early Childhood Education Conference, Columbus, OH.
- Rushton, S., Mariano, J.M. & Wallace, T.L. (2012). Program selection among pre-service teachers: MBTI profiles within a college of education. *Creative Education*, 3(1), 16-23. Retrieved from www.SciRP.org/journal/ce (Accessed on January 28, 2013).
- Smith, H.A. & Pratt, D. (1996). The use of biodata in admissions to teacher education. *Journal of Teacher Education*, 47(1), 43-53.
- Socket, H. (1993). *The moral base for teacher professionalism*. New York: Teachers College Press.
- Stronge, J.H. (2002). *Qualities of effective teachers*. Alexandria VA: Association for Supervision and Curriculum Development.
- Taiwo, C.O. (1980). *The Nigeria education system*. Lagos, Nigeria: Thomas Nelson (Nigeria) Ltd.
- Thompson, A. (1992). Teachers beliefs and concepts: A synthesis of research. In Grouws D.A (Ed.), *Handbook of research on Mathematics teaching and learning*. (pp.127-146). New York: Macmillan.
- VanLehn, K. (1989). Problem solving and cognitive skill acquisition. In Posner, M (Ed.), *Foundations of cognitive science*. (pp.526-579). Cambridge, MA: MIT Press.
- VanLehn, K. (1996). Cognitive skill acquisition. *Annual Review Psychology*, 47, 513-539.

Viatoru, O. (1999). Improved teachers' qualification and social perception: Sine qua non for full professionalism of teaching in Nigeria. *Journal of Education for National Development*, 6(2) (1&2), 71-78.