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Introduction to the issue – Dr. David Adewuyi, Managing Editor

The authorial spread of the approved articles in this issue speaks to the fact that *The African Symposium* is gaining more popularity and acceptance in many other African countries apart from Nigeria. The eleven articles in the issue were contributed by authors from Nigeria, Republic of Benin, Botswana, and Morocco. Even within Nigeria, articles were sent from many states that were not earlier represented. Some articles were also received from other continents but were not approved for publication. The affected authors have been advised to do more work on their papers and resubmit for consideration as suggested by the reviewers.

Emmanuel Majekodunmi Ajala's study examined the impact of workplace spirituality on employees' wellbeing at the industrial sectors. The author contends that while spirituality at work is an abstract concept, the empirical findings of the work showed that each of the three dimensions of spirituality at workplace (meaningful work, purposeful work, and sense of community/interconnectedness) has a positive and significant impact on the wellbeing of employees. **Adeleke Adegbami** examined the attitudes of underemployed workers to work and identified the effects of underemployment on the employees of local a government in Nigeria. The study concluded that, underemployment or disguised unemployment is a serious constraint to organizational progress and grassroots' development.

Kenneth Dipholo and **Idowu Biao** made a case for a revalorization of all indigenous knowledge in general and African indigenous knowledge in particular. The authors advise the adoption of pragmatic and Afrocentric educational theories, which will integrate African indigenous knowledge and current educational systems, thereby promoting the development of a holistic African educational system. **Fabian Ugwu, Ike Onyishi, and Winifred Tyoyima** explored the relationship between academic burnout, self-efficacy and academic engagement among Nigeria university undergraduates (college students). The results of the regression analyses revealed that academic burnout was negatively related with academic engagement, while self-efficacy was positively related with academic engagement. Implications of the findings to learning in Nigerian university context were discussed.

Yemisi Famakinwa discussed the 'senselessness' and 'meaningfulness' of some English (verbal/non-verbal) expressions. Her paper considered the notion of 'making sense' from three different perspectives: the sense of signs and symbols, affixation, and the alphabet, employing two linguistic approaches of grammar and semantics for analysis. The study concluded that 'senselessness' and 'meaningfulness' are intertwined because some senseless expressions can make meaning.

Veronique Van Lierde, Jack Kalpakian, and Nada El Jarid argued that instruction within the classroom generally helps students develop mathematical thinking skills. The research was conducted in a North African context, where students often face the challenge of thinking, learning and talking in different languages. **Kehinde Fakanbi** and **Olarotimi Raji** discussed what they called "a plethora of cataclysmic social tornadoes," which they thought carried the capacity and potential to precipitate the disintegration of Nigeria. The paper was an attempt to lay bare the grey areas of Nigerian federalism which were at variance with global practice of federalism. The study also examined the pattern and trajectory of unrest that are fall-outs of the "unfederal" character of the Nigerian state.

Toyin Akanbi explored the influence of familial factors, personality traits and self-efficacy on entrepreneurial behavior among 470 vocational-based students in the two public Colleges of Education in Oyo state, Nigeria. The outcomes of the study were discussed and it was suggested that counselling practitioners should take care of familial variables while handling issues relating to entrepreneurial intention among students. **Isiaka Gambari, Moses James and Charles Olumorin** investigated the effect of cooperative, competitive and individualistic instructional strategies on the performance of high, medium and low academic achievers using video instructional package. Findings indicated that there was significant difference in the performance of high, medium and low achievers' groups in favor of cooperative learning strategy. Students' achievement levels had significant influence on their performance in competitive and individualized instructional settings.

Oluwole Coker and **Mohammed Ademilokun** studied how the new generation of writers has grappled with the age-long issue of languages of expression for African literature with a view to determining if there was a paradigm shift in linguistic choice especially by third-generation Nigerian writers. The authors analyzed the language strategies employed in two selected Nigerian novels. The researchers found that third-generation writers were not only sensitive to the vexed issue of medium of expression of African literature; they also injected fresh strategies to accommodate linguistic diversity and portray the transnational tilt of their works. This ultimately made the creative productions accessible as globalized art forms. **Adedunni Adegun** and **Oyesoji Aremu** examined the effectiveness of Career Development (CD) and Cognitive Reframe (CR) therapy in reducing irrational career thoughts of secondary school students. A sample of 96 Senior Secondary School one students with irrational career thoughts were purposively selected from three randomly selected Senior Secondary Schools in Ogun State Nigeria for the study. CD and CR were found to be effective in reducing irrational career thoughts of secondary school students. Implications of these on career development in Nigeria were discussed.

As usual, we wish to thank our reviewers for their selfless service to the African Educational Research Network. The next summit of AERN will take place at Obafemi Awolowo University, Ile-Ife, Nigeria in June 2014. Many of our authors will be invited to make presentations at the summit. Please be on the lookout for more information.

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THE IMPACT OF WORKPLACE SPIRITUALITY AND EMPLOYEES' WELLBEING AT THE INDUSTRIAL SECTOR: THE NIGERIAN EXPERIENCE

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Abstract

In this 21st century when the world economy has been globalised, organizations are faced with more complexities, competition and structural changes which elicit the introduction of spirituality within the workplace so as to enable human hearts, spirits and souls to grow and flush so that employees and employers will become healthy, creative, innovative, compassionate and productive in all endeavors to the sustenance of the workplace. The study examined the impact of workplace spirituality on employees' wellbeing at the industrial sectors. The descriptive survey research design of the ex-post-facto type was used for the study. A total of two hundred and seventy – five (275) participants were involved in the study. The participants were drawn from three firms representing three industrial sectors (Food & Beverages, Publishing, Agro allied) in Oyo state, Nigeria. While spirituality at work is an abstract concept, this empirical finding showed that each of the three dimensions of spirituality at workplace (meaningful work, purposeful work, and sense of community/interconnectedness) has positive significant impact on the wellbeing of employees'. The study recommended that Management, Human resource personnel, Industrial Social Workers should be at alert to take into account employees spiritual lives and the value and richness of their collective potential for the wellbeing of employees and the sustenance of the workplace.

Keywords: Spirituality, Wellbeing, Workplace, Employee, Industrial Sector

Introduction

The modern world is plagued by social, economic, and environmental problems that are the result of human greed and a lack of love and compassion. These large scale problems have triggered in human kind a renewed search for harmony and peace, a search that is essentially a spiritual journey (Cacioppe, 2000). This spiritual approach recognizes that people work not only with their hands but also with their hearts or spirit (Ashmos & Duchon, 2000).

At the workplace, there exists horizontal spirituality. Horizontal spirituality at work is the desire to be of service to other people and that is demonstrated by service orientation and deep concern for others at work. Consideration towards others (showing concern) and high quality interpersonal work relationship have high worker job satisfaction, low turnover, group cohesion, group performance, and group efficiency (Bass,1990; Champoux,2000). In essence, spirituality provides employees a sense of community and connectedness which in turn increases employees commitment, belongingness, and effectiveness (Garcia-Zamor, 2003). Spirituality, therefore, can be seen as coming from within and it is beyond survival instinct of the mind. It is pertaining to our meaning and dreams, our patterns of thought, our emotion, feelings and behaviours (Turner, 1999).

Spirituality at work is not a fringe idea. In fact, spirituality at work addresses human activities relating to personal development, compassion, meaningfulness and joy at work, honesty, trust, job commitment, and wellbeing of employees (Petchsawange & Duchan, 2012). Successful organizations such as Hemlett-Packard, Tom's of Maine, Ford Motor Company (Burack, 1999), the World Bank (Laabs, 1995), AT&T, Chase Manhattan Bank, DuPont, and Apple Computer (Cavanagh, 1999), have created programmes to bring spirituality to the workplace. In Nigeria, there is dearth of research studies as to the application and impact of spirituality on employees at the workplace. The existing ones, Mojinyinola (2010) is on the study of the role of spirituality in health, illness and treatment while Ajala and Mojinyinola (2013) discussed the need for the integration of spirituality in social work education, are not on spirituality and employees' wellbeing at the industrial sector. It is against this phenomenon that this paper will examine the impact of spirituality on employees' wellbeing, definition of spirituality and its relevance to the workplace, major constructs of spirituality that are related to employees' wellbeing.

Definition of Spirituality and Its Relevance to the Workplace

Scholars have diverse opinion as to what is spirituality. A school of thought makes no differentiation between spirituality and religious practice, they assume that spirituality involves a relationship with an explicitly Christian God. At the other school of thought, any notion of a God, deity or higher power seems to have been totally excised from understanding of spirituality, and spirituality is defined only in terms of meaning or purpose in life (Crisp, 2008).

Furman, Benson, Canda and Grimwood (2005) define spirituality in terms of an attitude or approach to encompassing a search for meaning, purpose and morally fulfilling relations with self, other people, the encompassing universe, and ultimate reality. Similarly, Staude (2005), saw spirituality as a transformational process through which the different aspects of life are integrated (physical, emotional, occupational, intellectual and rational). That is, spirituality involves a connectedness to oneself, others, nature and to a larger meaning or presence. It is strongly associated with creativity, play, love, forgiveness, compassion, trust, reverences, wisdom, faith and sense of oneness.

Therefore, Karakas (2010) stated that spirituality is distinguished from institutionalized religion by being characterized as a private, inclusive, non-denominational, universal human feeling, rather than an adherence to the beliefs, rituals, or practices of a specific organized religions institution or tradition.

In the workplace context, spirituality has been defined as our inner consciousness (Guillary, 2000), a specific form of work feelings that energizes action (Dehler & Welsh, 1994), access to the sacred force that implies life (Nash & Mclennan, 2001) and the unique inner search for the fullest personal development through participation into transcendent musters (Delbecq, 1999).

Spirituality and Workers Wellbeing

The wellbeing of employees is in the best interest of communities and organisations. The workplace is a significant part of an individual's life that affects his or her life and the wellbeing of the community (Harter, Schmidt & Keyes, 2002). Therefore, wellbeing in the context of this paper is looked at from social construct, reduction in stress, burnout and workaholism and increasing workers morale, commitment to the organization and subsequent increase in productivity of workers.

Workplaces have become the bedrock for the development of community set up for employees. It has become places where people spend most of their lives, develop friendships, create value, and make their most meaningful contributions to society (Fairholm, 1996). The average adult spends much of his or her life working, as much as a quarter or perhaps a third of his waking life at work, it becomes their most important community and to some employees, the work and colleagues at work have taken the place of family or social group. The workplace has become the fountain head of community for many people (Conger, 1994). With this centrality of work in people's lives, associated problem have developed, this include stress, burnout and workaholism. Rifkin (2004) and Gini (1998) stated that workaholism has become a serious and growing problem for many Americans.

Stress induced by workaholism leads to loss of spirituality, chronic illness, pain, fatigue, fear (Killinger, 2006), while higher absenteeism, lower productivity and increase in company's expenditure in form of health compensation claims increases (Cartwright & Cooper, 1997) due to stress at workplace. Furthermore, the workplace environment and policies like: downsizing, layoffs, mergers and acquisitions, terrorism, market crashes, uncertainty (Biberman & Whitty, 1997; Cacioppe, 2000; Giacalone & Jurkiewicz, 2003; Neal, 2000; Sparrow & Cooper, 2003) contribute to the development of workplace stress with resultant effect on reduction on employees' morale, and commitment (Brandt, 1996; Duxburg & Higgins, 2002; Giacalone & Jurkiewicz, 2003).

Neal (1999) talked about "legitimized Schizophrenia" at the workplaces which refers to uneasy feeling of putting on masks, hypocrisy, artificially and playing to be successful. This legitimized schizophrenia leads to artificial separation from work and life with resultant results in lower productivity and higher stress and burnout. Therefore, many employees in today's workplaces feel unappreciated, unconnected (an aspect of spirituality), lost and insecure in their jobs (Sparrow & Cooper, 2003). Krishnakumar and Neck (2002) found that the encouragement of spirituality in the

workplace can lead to benefits in the areas of creativity, honesty, personal fulfillment and commitment which ultimately lead to increased organizational performance.

These problems of stress, burnout and workaholism at workplace can be solved through spirituality with a beneficial consequence for the well-being of employees. Reave (2005) pointed out the significant correlation between spirituality and mental health indices of life satisfaction, happiness, self-esteem, hope and optimism, and meaning in life. Furthermore, workplace spirituality programmes have positive effect on employees in form of increased job, serenity, job satisfaction and commitment (Fry 2003, 2005; Giacalone & Jurkiewicz, 2003; Paloutzian, Emmons & Keortge, 2003; Reave, 2005); reduction in workers/employees absenteeism, turn over and increase in organizational productivity (Fry 2003, 2005; Giacalone & Jurkiewicz, 2003); improvement in employees attitudes of commitment to the organization, work satisfaction and job involvement (Milliman, Czaplewski & Ferguson, 2003) and positive effects on personal well-being and job performance (Neck & Milliman, 1994).

Spirituality and Provision of Sense of Meaning and Purpose

The advent of industrial age have made organizations to concentrate on creating material wealth, putting economic goals and profitability before the social and public needs, hence the bareness of emotional and spiritual needs. As profit maximization become the main strategic objective of most workplace organizations, social, interpersonal and spiritual functions and goals of organizational life have taken a back seat in today's corporations (Gull & Doh, 2004; Hertz, 2002; Post, Preston & Sachs, 2002; Walsh, Weber & Margolis, 2003). In most of today's corporations, the central focus persists to be an observable, external, controllable, empirical, and materialistic outcomes or variables which lead to the creation of a "world without depth" (Gull & Doh, 2004) and the isolation of the soulful aspects of work life (Bolman & Deal, 1995). Gozdz (1995) contended that organizations that value positivism, reductionism, and empiricism many fall into the trap of denying the existence of spirit.

Therefore, employees and managers have started to question the success of materialistic principle to individual and collective wellbeing of people as against people's desire for more meaning and quality of life at work (Cash & Gray, 2000; Gull & Doh, 2004; Laabs, 1995; Pratt & Ashforth, 2003; Wrzesniewski, 2003). A large number of employees today often feel psychologically isolated and alienated at work (Bolman & Deal, 1995; Cavanagh, 1999; Harman, 1992); as well as a vacuum and lack of meaning in their work lives (Cavanagh, 1999; Dehler & Welsh, 1994; Pratt & Ashforth, 2003). The compartmentalization of work, life, family and spirit may rip authenticity off employees, leaving them feeling unfulfilled, stressed and alienated (Cavanaugh, 1999; Fairholm, 1996). Johnson (2004) found that over 61% of respondents to his research think their workplaces would benefit from a greater sense of meaning and spirituality. This means that workers souls long for deeper meaning, deeper connection, greater simplicity and a connection to something higher (Oldenburg & Bandsuch, 1997).

Many employees in today's workplaces question themselves and their work, ask themselves about the essence and meaning of their work and search for a sense of purpose and meaning at work (Ashmos & Duchon, 2000; Cacioppe, 2000; Karakas, 2010). Researches have shown that workplace spirituality has the potential to provide employees a feeling of purpose, a sense of connection, and a sense of meaning at work (Brandt, 1996; Bolman & Deal, 1995; Giacalone & Jurkiewicz, 2003). Organizations with stronger sense of spirituality enable employees to exercise stronger values and ethical beliefs in their workplace and empower them to show more creativity and flexibility at work (Mitroff & Denton, 1999).

Work takes new meaning and significance when it is seen as a calling, a sacred duty, a service opportunity or a way to serve God, other deities, or a higher purpose (Paloutzian, Emmons & Keortge, 2003). Therefore, when work is seen as a calling, it becomes more meaningful and subsequent increase in productivity and commitment of employees (Paloutzian et al. 2003; Reave, 2005). Their finding confirms that productivity and performance increases as a result of deeper meaning at work, as well as how spirituality at work can provide employees a sense of meaning and purpose.

Spirituality and provision of Sense of Community and Interconnectedness

The provision of a sense of community and connectedness is critical to employees in today's workplaces and corporations. The decline in the local communities and social groups that establishes a sense of connectedness (Conger, 1994) and the dissolution of traditional support systems such as church and family (Leigh, 1997) has necessitated the workplaces to have replaced them as primary sources of community for many people. Employees now seek ways and means to connect to each other and to be united in a common vision that goes beyond materialistic aims (Miller, 1998). This makes the aspects of community and connectedness in spirituality experiences very important in this recent community (workplace or organizations).

Researchers have stressed that organizations are not just machines for producing goods but that they are also forms of human community that foster satisfying and meaningful life experiences for individuals, families and society (Gull & Doh, 2004), produce significant social values and outcomes for society (Frost, Dutton, Mailis, Liliusi, Kanov & Worline, 2006; Walsh, Weber & Margolis, 2003).

Spirituality at work provides employees a sense of community and connectedness through higher levels of employee attachment, loyalty and belonging (Duchon & Plowman, 2005; Fairholm, 1996; Milliman, Ferguson, Trickett and Condemi, 1999). Spirituality is linked to positive outcomes and benefits associated with sense of community through building community (Cavanagh, Hanson, Hanson & Hinojoso, 2001) serving the need for connecting to others at work (Khanna & Srinivas, 2000) and being the source of daily expressions of compassion, wisdom, and connectedness (Maxwell, 2003).

The major components of spirituality are meaningful work, purposeful work, sense of community/interconnectedness and transcendence (Petchsawanga & Duchon, 2012). Since transcendence has been associated with religious aspect of human activities and individuals personal life (Milliman et al., 2003), it is isolated from this research which focuses on workplace and employees' wellbeing hence this research will examine the workplace spirituality (meaningful work, purposeful work, sense of community/interconnectedness) on employees' wellbeing at industrial sector.

The dearth of literature and empirical researches on spirituality and workplace in the Nigerian context has spurred this research. Mojuyinola & Ajala (2012); Ajala & Mojuyinola (2013) discussed the place of spirituality in the curriculum of Social Work Courses in Nigeria, while Mojuyinola (2012) discussed spirituality in the recovery of patients in health care sector, researches have not been done on the impact of spirituality on employees in the workplace in Nigeria. Therefore, this empirical study is looking at the impact of spirituality on employees' wellbeing in the industrial sectors in Nigeria. Two research questions are raised to assist the research, they are:

- (1) What is the joint effect of workplace spirituality (meaningful work, purposeful work, sense of community/interconnectedness) on employees' wellbeing at industries?
- (2) What is the relative contribution of workplace spirituality (meaningful work, purposeful work, sense of community/interconnectedness) to workers' wellbeing at industries?

Methodology

Research Design: The descriptive survey research design of the ex-post-facto type was used for the study. The method is adequate because it does not involve manipulation of any variable. The event has already occurred and the researcher only investigated what was already there.

Participants: A total of two hundred and seventy – five (275) participants were involved in the study. The participants were drawn from three firms representing three industrial sectors in Oyo state, Nigeria. The firms and industrial sectors are Fan Milk Nig. Plc (Food & Beverages); Macmillan Nigeria Publishing Ltd. (Publishing) and Sudith Oil & Chemical Ltd. (Agro Allied). They are privately owned establishments and are profit oriented. From each firm, one hundred (100) respondents were randomly selected. Their ages ranged between 23 years and 48 years with a mean age of 26.5 years. 195 respondents (48.75%) had tertiary education qualifications, 172 (43%) had secondary certificates and only 33(8.25%) had primary education. The least qualification of the respondents was the West

African Examination Council certificate and the highest was First Degree. Meaning that, all the respondents are literate and could understand the questionnaire properly.

Instrumentation:

The instrument used for the research was the questionnaire tagged “Workplace Spirituality and Workers’ Wellbeing Questionnaire” (WSWWQ). It was a four-point rating scale of Strongly Agree (SA), Agree (A), Strongly Disagree (SD) and Disagree (D), with the corresponding values of 4, 3, 2, 1 respectively. The structured questionnaire was made up of four sections: A – D.

Section A – Meaningful Work: This section is an adapted six items of Milliman, Czaplewski & Ferguson (2003) “Workplace Spirituality and Employee Work Attitude: An Exploratory Empirical Assessment”. The scale contained items like ‘Experience joy in work’. This was re-validated is the present location and yielded cronbach’s alpha co-efficient of 0.90.

Section B – Purposeful Work: This section is made up of six items adopted from Petchsawange & Duchon (2012) “Workplace Spirituality, Meditation and Work Performance” The scale contained questions like “I do jobs or tasks automatically by being aware of what I am doing”. This was re-validated is the present location and yielded cronbach’s alpha co-efficient of 0.86.

Section C – Sense of Community and Interconnectedness: This section is an adapted seven items of Milliman, Czaplewski & Ferguson (2003) “Workplace Spirituality and Employee Work Attitude: An Exploratory Empirical Assessment”. The scale contained items like “Experience joy in working with colleagues”. This was re-validated is the present location and yielded Cronbach’s alpha co-efficient of 0.89.

Section D – Wellbeing: The Well-Being Scale of Fujishiro (2005) with 12 items was adapted for the study. The reliability coefficient got after re-validation was Cronbach’s alpha coefficient, 0.87.

Data Analysis

A total of 300 questionnaires were administered, out of which 275 copies that were properly filled were used for analysis. Multiple regression analysis at 0.05 level of significance was the statistical tools employed in the study to examine the contents of workplace spirituality (independent variables) and workers’ wellbeing (dependent variable).

Results and Findings

Table 1: Regression analysis showing the joint contribution of workplace spirituality on workers wellbeing in industry

Regression (R) = .785		Regression square = .615			
Adjusted R square = .611		Standard Error of Estimate = 4.7963			
<i>Analysis of Variance</i>					
<i>Source of variation</i>	<i>Sum of square</i>	<i>Df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>
Regression	9756.127	3	3252.042	144.567	.000
Residual	6069.133	271	22.495		
Total	15852.260				

Table 2: Relative contribution of the independent variables to the prediction

<i>Source of Variation</i>	<i>Unstandardized coefficient</i>		<i>Standardized coefficient</i>	<i>T</i>	<i>Sig</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
Constant	-4.211	2.052		-2.053	.000
Meaningful work	.873	.096	.427	9.122	.000
Purposeful work	.631	.088	.298	7.200	.000
Sense of community					
Interconnectedness	.519	.091	.268	5.717	.004

Table 1 shows that the three components of spirituality (meaningful work, purposeful work, and sense of community/interconnectedness) to predict employees' wellbeing in industries yielded a coefficient of multiple regression (R) of 0.785 and a multiple regression square (R²) of 0.615. The table also shows that analysis of variance of the multiple regression data yielded an F-ratio of 144.567 (significant at the 0.05 level), indicating that predicting employees' wellbeing at work due to workplace spirituality could not have occurred by chance and has accounted for 61.5% of the variance of employees wellbeing.

Table 2 shows for each component of workplace spirituality (independent variable), the standardized regression weight (β), the standard error estimate (SEB), the t-ratio, and the level of which the t-ratio is significant. The values of standardized regression weights associated with employees wellbeing indicated that meaningful work (Beta = .427) is the most potent contributor, followed by purposeful work, (Beta = .298) and sense of community/interconnectedness (Beta = .268).

Discussion of Findings and Implications

The finding showed that employees' wellbeing is guaranteed with the introduction of workplace spirituality. With employees wellbeing guaranteed, it means that workplace spirituality enhances employees' morale, commitment and productivity due to the reduction in stress and burnout. The idea of workaholism was reduced to a moderate level through workplace spirituality hence no danger to organizational productivity, and there is enhancement of wellbeing of employees. This is in line with the views of Burack (1999) that spirituality enable employees to feel complete and authentic at work; Turner (1999) that spirituality will increase organizational performance; and Bento (1994) that empowerment of employees through spirituality will make them to be more honest, courageous and compassionate individuals. Furthermore, Mitoff and Denton (1999) stated that today's organizations suffer deep spiritual emptiness as a result of spiritual impoverishment. As a result of the spiritual emptiness, managers and employees resort to meditation, reflection and spiritual practices, wellness programmes, as well as fitness and sport exercises at work as a method of coping with stress and uncertainty at work (Dehler & Welsh, 1994) and subsequent benefit for the well-being of employees (Cartwright & Cooper, 1997).

The finding further showed that workers with workplace spirituality found the work more satisfying, meaningful and perform better. Workers who can express their spirituality through their work actually find work more satisfying and meaningful and accordingly perform better. This is in line with the findings of Mitroft and Denton (1999), Gull and Doh (2004) that workers who find meaning in their work activities perform more responsibly, ethically, collaboratively and creatively at work. Furthermore, employees who incorporate their spirituality and values into their work show increasing personal satisfaction and job commitment (Dehler and Welsh, 1994; Reave, 2005); become creative and innovative, increased empowerment, more cohesive in vision and purpose, and enhance team and community building (Lips-wiersma, 2002). The building of spirituality in the workplace through a

company's philosophy builds trust and mutual respect, which in turn contribute to cooperation and sharing a sense of purpose (Burack, 1999).

The finding established that the sense in interconnectedness/community through workplace spirituality lead to the wellbeing of industrial employees. Since the level of interconnectedness of spirituality involves the mental, emotional and spirit connections among employees in teams or groups in organizations (Neal and Bennett, 2000), it means that the essence of community (workplace inclusive) involves a deeper sense of connection among people, including support, freedom of expression, and genuine caring. All these attributes guarantee wellbeing of individual at the workplace. No wonder, few firms like Southwest Airlines, have developed strong organizational culture that emphasizes a sense of community among employees. The firm has developed a culture that employees are made part of a larger organisational family, making employees take care of each other as well as their customers, and employees families are also made an important part of the workplace family (Freiberg & Freiberg, 1996; Milliman et al., 1999). This connectedness has a resultant effect on improvement in productivity and sustenance of the organization.

Recommendations

- I. For the attainment of employees' wellbeing, forms of spirituality recommended by industrial social workers in the workplace should include optional morning prayers or yoga sessions, designing multi faith prayer spaces, starting corporate chaplaincies. These will give employees mental alertness, reduction of stress and build community spirit.
- II. Since organizations that suffer from a deep spiritual emptiness have series of problems both with and among employees, managers and employees are encouraged to resort to meditation, reflection and spiritual practices, wellness programmes, fitness and sport experiences at work as a method of coping with stress and uncertainty at work.
- III. Industrial social workers should allow the spirituality tendencies in employees to see work as a calling because when work is seen as a calling, it becomes more meaningful and this will increase peaceful mind, productivity and commitment of employees.
- IV. Industrial social workers should advocate on behalf of employees that management should try to accommodate and encourage spiritual requests from employees. Organizations should encourage their employees to feel free to express their own spiritual beliefs. As long as the spiritual requests of some employees do not limit the freedom of others, managers should respond to them.
- V. Since workplace of today are more diverse and multicultural than ever before, such diversity should be acknowledged while absolute respect for individual differences should be followed. Since spirituality is a highly individual and idiosyncratic experience, it is necessary that spiritual practices be customized based on the principle of respecting and valuing individuals unique inner landscape, values and perspective.
- VI. Since the aim of any organization is to engage a whole person at work with all their minds, hearts, spirits and souls. It is important to acknowledge employees as spiritual beings. Management, Human resource personnel, social workers are therefore alerted to take into account employees spiritual lives and the value and richness of their collective potential. In the line of Leigh (1997), workplace spirituality start with the acknowledgement that employees do not bring only bodies and minds to work, but also their hearts, souls, creativity, talents and unique spirits.

Conclusion

In this 21st century when the world economy has been globalised, organizations are faced with more complexities, competition and structural changes which elicit the introduction of spirituality within the workplace so as to enable human hearts, spirits and souls to grow and flush so that employees and employers will become healthy, creative, innovative, compassionate and productive in all endeavours to be sustenance of the workplace.

Irrespective of whether or not, we allow ourselves to be consciously shaped by any explicit religious idea; we act in ways that leave us either healthy or unhealthy. What shapes our actions is our spirituality. Spirituality is concerned with how we construct a sense meaning and purpose in our lives. As seen spirituality has the potential to make a core contribution to human wellbeing, nourish human connections and enhance sense of community development within the workplace. In conclusion, it is when people work with a committed spirit that they can find a kind of meaning and purpose, a kind of fulfillment in the workplace and the employees' spiritual level will not only reduce stress, conflict, and absenteeism, but also enhance wellbeing, quality of life and work performance.

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EFFECT OF UNDEREMPLOYMENT ON HUMAN RESOURCES EFFICIENCY AND WELLBEING IN NIGERIA

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Abstract

The paper examined the attitudes of underemployed workers to work and identified the effects of underemployment on the employees of local government. This was with a view to understanding one of the limiting factors affecting grassroots' development. Using a purposive sample of 60 underemployed graduates' staff of the three selected local government from three out of the six geo-political zone of Nigeria. The study utilized primary and secondary sources of data. Primary data were collected through the administration of questionnaire on the affected staff and the conduct of in-depth interviews with the Head of Departments in the Local Government as well as the Secretary and the Director of Appointment, Promotion and Discipline of the Local Government Service Commission to elicit information on the consequences of underemployment on the overall development of the grassroots. The data collected were analyzed using descriptive statistics. The findings revealed that, underemployment jobs are not tasking; do not give the employees chance to fully utilize their educational training, experience and skills; the employees felt bored and idle; they are poorly remunerated and experience lower job satisfaction, frustrated and dejected; have slim hope for advancement on the job; they have high quit intention and seriously search for better jobs. The study concluded that, underemployment or disguised unemployment is a serious constraint to organizational progress and grassroots' development.

KEY WORDS: Underemployment, Human Resources, Efficiency

Introduction

In the time past, the researchers into the problems that hindered development in the local government in Nigeria repeatedly attributed it to manpower problems, stressing that most of the local government studied do not have enough...human resources (Ekpo & Ndebibo, 1998). One of the factors that inhibit the performance of local government generally is unqualified, inexperienced and unskilled and inadequate manpower (Ojong, 2002, p. 112; Igbuzor, 2007). However, this study has shown that underemployment rather than inadequate or unskilled manpower is a major problem militating against development at the local government level. Education remains an effective medium of inculcating into human resources the required skills and knowledge needed to maintain economic growth and development in any nation. Education is a vehicle through which a country could advance economically and socially. In Nigerian, there is considerable rise in the standard of education as more and more people enroll to have their own share of knowledge development through education and also given the competition brought about by the increased participation of private entrepreneurs. However, at progressively alarming rate, workers are unable to use their educational certificates, the knowledge and skills acquired on the job. The reason is that the supply of labour has exceeded the demand in many professions. It is not surprising therefore to see highly qualified people taking up jobs in low positions.

Researchers have described individuals as "underemployed" when they are working in inferior, lesser, or lower quality jobs relative to some defined standard (Feldman, 1996). Underemployment has become a common experience for many graduates of institution of higher learning throughout Nigeria as more and more qualified workers are unable to use their educational background on the job. This phenomenon is problematic especially at the grassroots level among local government workers where considerable numbers of employees who are graduates from higher institution of higher learning are underemployed. Underemployment among the local government employees has become a great issue. Therefore, an urgent attention is needed because of the attendant effect it has on the concerned employees, such as poor productivity resulting from attitude to work as well as increasing poor working relations among the local government personnel. The general effect of underemployment on the progress and smooth administration of the local government is catastrophic. This could thwart the general development of the grassroots.

The unchecked influx of foreigners into the country under the guise of expatriate is another problems adding to the country employment situation. Ogah *et al.*, (2011) state

The unchecked influx of foreigners into the country under the guise of expatriate with skills lacking in Nigeria, has degenerated to the level of abuse, to the extent of aggravating unemployment with its attendant social crisis.

The expatriate are everywhere competing for works with Nigerians. They are easily found at construction sites, factories, auto sales outlets, oil and gas installations, the aviation sector, telecommunications among others. According to Ogah *et al.*, 'they are foreigners in the garb of expatriates performing tasks average, semi-skilled Nigerians can handle'. The Nigerian Bureau of Statistics (NBS) cited in Ogah *et al.*, (2011) puts unemployment in Nigeria at 23.9 per cent; yet Nigerian government allows foreign nationals to continue invading the country under the guise of being expatriates.

Nigeria former President Olusegun Obasanjo while speaking at a panel discussion on building sustainable societies on the sideline during the 100th Session of the International Labour Conference, in Geneva, said that he was worried concerning the spate of unemployment in Africa. He said governments in Africa had not been good job creators. He then challenged the African leaders to create a favourable environment for the private sector to thrive and create jobs. Former President Olusegun Obasanjo assert thus

I want to underline this as a situation that must signal red alert for us in Africa; I am worried, I am apprehensive about unemployment in our continent. It is not being taken as seriously as it should be. I give the example of my own country Nigeria, we now have 120 universities. When I was growing up and I have to go to university, there was only one university. With polytechnics and other tertiary institution, we have more than 200. We have over 600, 000 graduates every year and we are not creating 100, 000 jobs for the graduates. The youths can be ignited anytime, and now we have about 165 million populations, we must be talking of jobs, jobs, jobs, and jobs.

The labour market consists of a supply side and a demand side. The labour supply of the population, referred to as the economically active population or labour force is more than labour demand. This is because the number of graduates turned out on yearly basis is far more than available jobs, the resultant effect of which people are taking any available job to keep their mind and soul together.

Statement of the Problem

There is no disputing the fact that Local Government is the closest tier of government to the grassroot. Among the reasons for creating the local government is to decongest the functions and burden of central government and to bring governmental services nearer to the local people. Going by the importance of local government as an essential tier of government coupled with its supposed numerous functions to the grassroots people, local government is assumed to be the engine room for national development. However, the mismatch between education and job otherwise known as underemployment, representing an inefficient use of human resources seem to be one of the major challenges militating against development in the local government. The employees whose education and skills are underutilized are dissatisfied because they receive no return on their surplus education. Since they get no reward on surplus education, they have less job commitment and high quit intention rate in search of rewarding jobs. The desires of underemployed workers for better jobs due to poor remuneration lead to negative job attitudes.

The reason is not unconnected with the system and manners of appointment into the local government service. The system promotes to an extent mediocrity over meritocracy. There are lots of anomalies in the appointment into the local government service as appointment by merit was not followed, appointments into higher grade level were based on whom you know as the political class handled and shared available vacant posts to their loyalists with lesser qualifications. Graduates with first degree and its equivalents were many under GL06 while those staff with lesser qualification but know people in power are on GL07 and above.

Most of the existing literature is based on unemployment while the little on underemployment studied underemployment from the perspective of laid-off workers, who now find themselves in an

underemployed job. Besides, all these studies were carried out in Europe, Middle East and other part of the world. Given this situation, it becomes pertinent to study underemployment from the African perspective using some selected local government in Nigeria to evaluate the consequences of underemployment on the personnel of local government.

Local Government and Its Origin

Local Government according to the United Nation is a political sub-division of a nation (in a Federal system or State) which is constituted by Law and has substantial control of local affairs including the power to impose taxes and to exact labour for prescribed purposes. According to Local Government Reforms of 1976, Local Government is described as Government at local level exercises specific power within defined areas. Local Government is a sub-unit of government controlled by a local council which is authorized by the central government to pass ordinances having a local application, levy taxes or exact labour within limit specified by the central government and varies centrally decided policy in applying it locally (Maddick, 1963). Adeyemo (2005) while citing Emezi (1984) defines local government as

System of local administration under local communities that are organized to maintain law and order, provide some limited range of social amenities, and encourage cooperation and participation of inhabitants towards the improvement of their conditions of living. It provides the community with formal organizational framework which enables them to conduct their affairs effectively for the general good.

The history of Local Government in Nigeria is dated back to the era of Indirect Rule of the then Nigeria's Governor-General, Sir Lord Lugard, then it was known as Native Authority (NA). The then colonial local administration revolved around traditional rulers especially in the northern part of Nigeria while executive authority and power rested with the District Officers (D.O.). The administrative structure and organization were ad-hoc in nature. However, modern system of Local Government could be traced to 1976 as a result of a special reform witnessed by the Local Government. This was a period when local government have a constitutional backing as tier of government separated from Federal or State Government. According to 1976 local government Reforms

Local governments have over the years suffered from the continued whittling down of their powers, and state governments had continued to encroach upon what would normally have been the exclusive preserves of local governments and consequently there has been a divorce between the people and government at their most basic levels.

The period of Murtala/Obasanjo administration (1976-1979) which initiated local government reforms, is usually regarded as a watershed in the history of local government administration in Nigeria. This was the first time an intensive attempt was made by the federal government to brighten the future of local government. Local government was accorded a place in the Nigerian constitution as a tier of government saddled with the responsibility of providing for the socio-economic well-being of the grassroots populace in the country, being a government that is closer to the people.

Furthermore, for the first time in the history of local administration in Nigeria, there was a common single-tier structure in place whereby there was uniformity in the local administrative system all over the country to replace different structure of various states. There was uniformity of responsibilities and functions for all the local governments all over the federation; consequently both the political and administrative structures were uniform in all the local governments, to this extent, in all the local government councils in Nigeria the elected chairman is the political head while the administrative wing was headed by career administrator.

The Need for Local Government

The most fundamental rationale for creating Local Government anywhere in the world is to employ it to take responsibility for the development of the area directly and also contribute indirectly to the development of the nation (Imhanlahimi & Ikeanyibe, 2009).The need for local government

derives from its functions as stated in the constitution and the official documents that establish the local government. Local government increases the scope for citizens' participation in the government of their locality, through the provision of valuable political education and training. Local government help in training people for higher public offices, that is, local government could be seen as a nursery ground for nurturing the people at the grassroots to acquire experiences for higher career in government in either the State or the Federal. Besides local government enhance local ideas and knowledge in the decision of matters that concern or affect local peoples. The local representatives such as Chairman and the Councilors are closer to the people, hence, know their plight and the best way to tackle or respond easily to peoples' demands since they understand well the needs of their own locality. It equally allows local initiative which other tiers could not allow due to their distance from the grassroots. Local government also facilitated devolution of power as all the power is not concentrated in the hand of single tier. This in turn safeguards and protects citizens against tyranny.

The main functions of Local Governments according to the Fourth Schedule 1 of the 1999 Nigerian Constitution under exclusive list are as follows:

- Economic recommendations to the State;
- Collection of taxes and fees;
- Establishment and maintenance of cemeteries, burial grounds and homes for the destitute or infirm;
- Licensing of bicycles, trucks (other than mechanically propelled trucks), canoes, wheel barrows and carts;
- Establishment, maintenance and regulation of markets, motor parks and public conveniences;
- Construction and maintenance of roads, streets, drains and other public highways, parks, and open spaces;
- Naming of roads and streets and numbering of houses;
- Provision and maintenance of public transportation and refuse disposal;
- Registration of births, deaths and marriages;
- Assessment of privately owned houses or tenements for the purpose of levying such rates as may be prescribed by the House of Assembly of a State; and,
- Control and regulation of out-door advertising, movement and keeping of pets of all descriptions, shops and kiosks, restaurants and other places for sale of food to the public, and laundries; and

Under section 2 of the Fourth Schedule, the functions of a Local Government Council include participation of such council in the Government of a State in the following matters:

*The provision and maintenance of primary, adult and vocational education;

*The development of agriculture and natural resources, other than the exploitation of minerals;

* The provision and maintenance of health services (these are under concurrent list).

Underemployment: A Conceptual Clarification

At this stage attempt will be made to define within the context what is meant by underemployment. Underemployment could be seen as a situation whereby a person of working age, with relevant certificates, required experience and who is willing to work are given lesser job lower

than his/her qualification. That is, circumstances whereby the aforementioned categories of people are partially employed (not attaining full employment level). It could also mean a situation of underutilizing of the productive capacity of the employed population.

Underemployment reflects an underutilization of the productive capacity of the employed population, including underutilization which arises from a deficient economic system. It relates to an alternative employment situation in which persons are willing and available to engage in additional work (16th International Conference of Labour Statistician, 1998). Underemployment according to The International Labour Organization (1982) exists when employed persons have not attained their full employment level in the sense of the Employment Policy Convention (EPC) adopted by the International Labour Conference in 1964. That is, positions where employed persons still desire to work more. According to this Convention, full employment ensures that there is work for all persons who are willing to work and look for work; such work is as productive as possible; and they have the freedom to choose the employment and each worker has all the possibilities to acquire the necessary skills to get the employment that most suits them and to use in this employment such skills and other qualifications that they possess. Therefore the key issues in full-employment are availability of productive work for the ready employees; with liberty or free will to opt for their desired job; to obtain essential skills to be used on the job with intention to get to the top in their chosen career.

While the situations where there is no work for all persons who are willing to work and look for work refer to as unemployment, the circumstances whereby workers have no freedom to choose the employment and has all the possibilities to acquire the necessary skills to get the suitable employment or where already acquired skills will be useful refer to underemployment. ILO further asserts that, underemployment employees include persons who even though during the reference week worked or had a job; they were willing and available to work "better" or "more adequately".

As touching Nigeria, Federal Office of Statistics (1997) cited in Obadan & Odusola (2000) considers underemployment as a reflection of the extent to which some human resources are rendered potentially idle. This is a circumstance whereby human capacity, capability and ability are being made redundant due the nature of the job the person is doing which does not require her full mental potentials. Underemployment is thus, when someone does a job that he/she is overqualified for. In this situation the employees look uninterested and depressed.

Doyle (2010) describes underemployment to be a situation where people who are working in a lower capacity than they are qualified for, including in a lower-paid job or for less hours than they would like to work. A person is considered underemployed when they are working at a job they are over-qualified for, working part-time when they would prefer full-time work, or working at a low-wage job when they could, if jobs were available, be working more hours.

Obadan & Odusola (2000) see underemployment as disguised unemployment. According to them the incidence of underemployment or disguised unemployment has been acknowledged in the literature as a serious constraint to economic progress.

Feldman (1996) conceptualizes underemployment as jobs which are lower in quality in some way. O'Brien (1986) defines underemployment as underutilization of skills. That is, the extent at which individuals who have jobs made full use of the skills and abilities they learned in school. It is evident however that in an underemployed job acquired knowledge and skills are worthless.

Feldman (1996) observes that individuals could be seen as underemployed when they are working in inferior, lesser, or lower quality jobs relative to some defined standard. He further observes that desperate people with financial problems do take underemployed job. Feldman asserts thus

Underemployment describes the employment of workers with high skill levels in low-wage jobs that do not require such abilities. For example, someone with a college degree may be tending bar or driving a cab. This may result from the existence of unemployment, which makes workers with bills to pay (and responsibilities) take almost any jobs available, even if they do not use their full talents. This can also occur with individuals who are being discriminated against, lack appropriate trade certification or academic degrees (such as a high

school or college diploma), have disabilities, or have served time in prison.

Audu (2011) corroborates this by affirming that underemployment refer to the employees at work that is inefficient or unproductive with a corresponding low income that is insufficient to meet their needs. That is, these types of employees though working but without corresponding wages and they are rendered inefficient and unproductive because their potentials are not full utilized. Audu further emphasizes that the Under-employed themselves are not in any way immune to employment challenges. Apart from the challenge they face in getting a more ideal job or position, they find it hard to get their position upgraded to be commensurate with their qualifications, and get little or no support or approval for furthering their education. This is because since the value of these employees to the organization are not fully appreciated as reflected in poor remuneration; it is hard task getting back to school to further their education due to financing difficulty.

Burris (1983) and Mottaz (1986) see underemployment from the perspective of labour/market relations. To them, underemployment is a societal issue brought about by the rise in educational levels of workers; thus underemployment could be considered as overeducation for the jobs currently available in the labour market.

Classification of Staff in the Local Government

The staff in local government setting could be classified into two categories. These are the junior staff and senior staff. According to civil service staff regulation/approved scheme of service, there are specific qualifications and guidelines on how these sets of personnel are recruited and promoted. The junior cadres are those on Grade Level 01-06. The basic qualification for the set of staff in this category is primary school leaving certificate. Other qualification is secondary school certificate being conducted by West African Examinations Council (WAEC) or National Examination Council (NECO), or its equivalents certificates from recognized examinations bodies.

The appointment of these set of staff are handled by the Junior Staff Management Committee (JSMC) of each of the local council. Equally, the JSMC handle the affairs, activities and promotion of these set of staff. JSMC activities are being regulated by the local government service commission (LGSC) in that anything regarding the appointments, promotion and discipline of these set of staff are brought to the notice of the commission for appropriate approval. The composition and function of JSMC are clearly spelt out in the 1988 Civil Service Reforms for Local Government.

The second group of appointments is the staff on Grade Level 07 and above. This category of staff is appointed by the Local Government Service Commission. The basic entry requirement for staff under this category is Higher National Diploma (HND), University First Degree, or their equivalents. The LGSC is equally responsible for the promotion, training, transfer and discipline of the staff in this category.

According to the local government scheme of service, the post of the Head of Department is available to those who rise through the ranks or those who possess higher qualification. Similarly, the scheme of service accepts a Higher/Advanced Diploma, first degree or higher degree with copious experience as applicable to become a Head of Department.

Contrarily, in the local government nowadays, appointment, promotion and positioning/assigning duties/roles are not based on merit. It was revealed that an employee with a primary six certificate could rise up to grade level 09, while an employee with Modern III certificate could rise up to grade level 14 and above while those with Secondary School Leaving Certificate could also rise up to grade level 14 and above, all these to the detriment of graduates with Higher National Diploma, University First Degree and even with Master Degree in the rank below grade level 06.

Research Methodology

Study Area

The study areas were three purposively selected Local governments in three out of the six geopolitical zone of Nigeria. One local government was selected from the South-West, North-West and South-East: Ibadan Central LG in Oyo State; Kaduna South Local Government in Kaduna State and

Enugu North Local Government in Enugu State respectively. The chosen local governments are the regional headquarters of the three major ethnic groups prior to independence and serve as natural base of the three major ethnic groups in Nigeria. Also only three local governments were selected because what obtains in one local government applies to all other LG with respect to personnel, especially by virtue of Unified Local Government System being operated in Nigeria.

Study Population

The population for the study comprises of the staff of the three selected local governments. Twenty underemployed staff members were purposively selected from each of the local governments making 60 respondents.

Research Instruments

The study utilized primary and secondary sources of data. Primary data were collected through the administration of questionnaire and the conduct of in-depth interviews. A set of questionnaire was administered on the 60 respondents to elicit information on the attitude of underemployed workers to duties as well as the effects of underemployment on the employees of local government. Interviews were also conducted with the Heads of Departments in these local governments as well as the Secretary and the Director of Appointment, Promotion and Discipline of the Local Government Service Commission to elicit information on the consequences of underemployment on overall development of the grassroots.

Results and Discussions

Demographic Characteristics of the Respondents

This section presents the demographic characteristics of the respondents such as gender, highest qualification, and status/rank of staff.

Table 1 Demographic Characteristic of the Respondents

	Characteristics	Frequency	Percentage
1	Gender		
	Male	30	50.0
	Female	30	50.0
	Total	60	100.0
2	Highest Qualification		
	HND/B.Sc.	50	83.3
	M.Sc./Professional Cert. (such as ACA, CNA, CPA, CPS...)	10	16.7
	Total	60	100.0
3	Status/Rank		
	GL 06-07	60	100.0

Source: Fieldwork, October, 2011.

From Table 1, the gender distribution of the respondents revealed that there were 30 (50.0%) male and 30 (50.0%) female respondents respectively. The highest educational distribution

of the respondents depicted that majority of the respondents 50 (83.3%) had HND and B.Sc. level of education, while 10 (16.7%) of them had M.Sc./Professional Certificate. By Rank/Status all the respondents 60 (100.0%) are between Grade Level 06-07.

The essence of the demographical patterns of the respondents is to ascertain the appropriateness of these respondents and the reliability of the information obtained relative to the objectives of the study.

Table 2. Does the job you are doing give you opportunity to put in your best?

Responses	Frequency	Percentage
Yes	0	0.0
No	60	100.0

Source: Fieldwork, October, 2011.

From table 2, 60 (100.0%) of the respondents believed that the type of job they are doing in the Local Government do not allow them to put in their best on the job. This signifies that, the LG job does not allow staff to use their initiatives in discharging their duties and this according to the respondents is tantamount to underutilization.

The significance of these data rested on the fact that the majority of the graduates in the LG who were underemployed were disallowed to put in their best performances. Most of the time, they were made redundant, thereby killing the initiatives of these set of workers.

Table 3 Does the job give room for the application of the knowledge you have acquired in school?

Responses	Frequency	Percentage
Yes	0	0
No	60	100.0
Total	60	100.0

Source: Fieldwork, October, 2011.

Table 3 shows that, 60 (100.0%) of the respondents believed that the rule of work is not followed but the rule of few selected officers in the service, so the LG is being turned into private business where few "loyal and corruptible" officer were given official schedules while other competent and able hand were neglected. Few incompetent officers (with lesser academic qualifications) were being used at work due to their gullibility. These 'clique' have hijacked the LG and promoted mediocrity in place of meritocracy.

Table 4 Is the work you are doing tasking?

Responses	Frequency	Percentage
Yes	0	0
No	60	100.0
Total	60	100.0

Source: Fieldwork, October, 2011.

In relation to how tasking the work the respondents are doing at LG was, table 4 above revealed that all the respondents (100.0%) believed that there was nothing tasking in their job rather they were being made redundant. Some of the respondents in the Department of Works and those in the Department of Agriculture complained that fund for projects such as road constructions and agricultural practices were not released and when eventually released it was always at the wrong time, hence idleness of workers became the order of the day in LG system. Lack of challenges on the job has been associated with boredom and job dissatisfaction.

This revealed the level of bastardization of activities at grassroots level (local government) which is expected to provide essential services to the people.

Table 5 Is there any hope of advancement in your job?

Responses	Frequency	Percentage
Yes	14	23.3
No	46	76.7
Total	60	100.0

Source: Fieldwork, October, 2011.

Table 5 gives information regarding hope for advancement on the job. 14 (23.3%) of the respondents were of the opinion that they will be able to get to the peak of their career. They hope that a time will come when good governance will help to correct the anomaly in the LG. This was because succeeding government only placed their party loyalist in high position in the civil service not minding whether the workers merit the position they were elevated to. To other respondent, 46 (76.7%) have resigned to fate that there was no hope for advancement except they get another offer from other sector.

From the above, it could be deduced that, majority of the respondent have desire and intention to quit LG work if they have their ways and opportunity to do so by getting better job.

Table 6 How often do you go to work?

Responses	Frequency	Percentage
Every work day	44	73.3
2-3 days in a week	16	26.7
Total	60	100.0

Source: Fieldwork, October, 2011.

Also, Table 6 shows the extent to which the respondents come to work. 44 respondents out of 60 (73.3%) indicated that they come to work every work day, while the remaining 16 respondents (26.7%) said they come to work between 2-3 days in a week.

The various reasons given by the respondents for not coming to work regularly were poor remuneration that cannot take them for the month, unfavourable work environment and the fact that that they have to go out in search of a better job and to attend appointment tests and interviews. The attendant effect of underemployment are poor attitude to work, because workers feel unchallenged by the nature of their job consequent upon which they show less commitment to job.

Table 7 What kinds of duties are assigned to you?

Responses	Frequency	Percentage
Collection of market fees/transportation fees	12	20.0
No specific schedules	48	80.0
Total	60	100.0

Source: Fieldwork, October, 2011.

Table 7 gave results of the types of duties being, assigned to workers, majority of the respondents 48 out of 60 (80.0%) answered “No specific schedule”. Most of the respondents reasoned that they can be called upon to do one menial job or the other, while 12 (20.0%) of the respondents indicated that, they were engaged in the collection of market levies on every market day usually every eight-eight day and also collect transportation licenses from the transporters within the Local Council area.

From the above analysis, it was evident that, there was no specific duty for most of the underemployed graduates in the LG.

Table 8 Do you have any other jobs apart from LG job?

Responses	Frequency	Percentage
Yes	49	81.7
No	11	18.3
Total	60	100.0

Source: Fieldwork, October, 2011.

Table 8 relates to whether the respondents have other job. Majority of the respondents, that is, 49 (81.7%) responded “yes”. Some of them engaged in farming, some engaged in part-time teaching, some got occupied in petty trading while others embarked in theatrical acting. The respondents that have no other job are seriously looking for one.

The above analysis shows that majority of underemployed workers engaged themselves in other works where they get additional income to complement the pittance they received from the government at the end of every month.

Table 9 Are you satisfied with the nature of your job?

Responses	Frequency	Percentage
Yes	0	0
No	60	100.0
Total	60	100.0

Source: Fieldwork, October, 2011.

In response to whether the respondent are satisfied with the nature of their job, all the respondents 60 (100%) said they are not satisfied with the nature of their job because they were underutilized and also because their salary/remuneration does not correspond with the certificates they are holding when compared with their counterparts in the federal government employment.

Others complained that they were idle at work which does not go down well with them.

Table 10 Will you take other appointments if there is an opportunity?

Responses	Frequency	Percentage
Yes	60	100.0
No	0	0.0
Total	60	100.0

Source: Fieldwork, October, 2011.

Table 10 presents the results on whether the respondents will take other appointments if there is opportunity. Sixty (100%) said they are seriously searching for good job and any time they get one they will leave the LG job.

From the analysis, there are serious intentions to quit LG job among underemployed graduates.

Table 11 In your own view what are the effects or impacts of the nature of your job on you?

Responses	Frequency**	Percentages
Welfare: Poor standard of living	60	21.1
Health: Redundancy/underutilization with poor remuneration affect one's health	60	21.1
It has negative impact on workers psychology because people look down on them	60	21.1
Poor attitude to work	45	15.6
No commitment to the organization	60	21.1
Total	285	100.0

Source: Fieldwork, October, 2011.

**The frequency exceeds 60 because respondents identified more than one effect of underemployment on them.

Table 11 relates to the effects or impacts of the nature of the job on the respondents. 60 (21.1%) of the respondents said that underemployment had negative impact on their welfare, the workers attributed this to poor standard of living which is not unconnected with the meagre stipends they receive at the end of the month as salary. As results they cannot meet up with necessary amenities needed to live a comfort life, this consequently affects their family as well as their children. For instance they could not get a good accommodation, nor eat a balanced diet as well as wear decent clothes neither could they afford good education for their children.

This is followed by 60 (21.1%) respondents who asserted that underemployment had effect on their health. To them, redundancy as well as underutilization of their skill, ability and knowledge do affect their health. Continue idleness without exercising ones mental faculty lead to poor health. Also, underemployed workers are prone to depression. In addition to this, poor remuneration affect health as one always think of the way out of his/her daily financial embarrassment due to low income.

Also 60 (21.1%) of the respondents emphasized that, underemployment has negative impact on their psychological wellbeing because people look down on them. Instances were given of some Landlords who always refuse to give them their houses for rent simply because of the nature of their job. These set of Landlords prefer to let their houses to Bankers, Doctors and Lecturers consequent upon which they are psychologically depressed, felt as nobody or less human and have their self-esteem and self-image badly affected.

Another effect of underemployment on the staff of LG was that it has led to poor attitude to work as indicated by 45 (15.6%) respondents. Since some of the top ranking officials of the LG only consider their loyalist (with lesser academic qualifications) in fixing various work schedules and neglecting the underemployed graduates, the latter thus show poor attitude to work as they are already schemed out of relevant activities in the LG.

Finally, poor commitment to the organization is another effect of underemployment as reasoned by all the respondents (21.1%). They based their assertion on the fact that there is no point in being committed to organization that had no respect for the staff, where there is no incentives or motivation and more importantly where chances of advancement is slim as promotion were not based on merit but on whom you know.

This section is important in the sense that, it revealed different effects and impacts of underemployment on the staff of LG and where the Human Resources "Vital Tools" are not well treated it brings about low productivity.

Conclusion

Underemployment or disguised unemployment is a serious constraint to economic progress. The effect of underemployment is as distressing as unemployment itself. Underemployment jobs are unchallenging and not tasking. The underemployed workers assignments do not give them chance to fully utilize their educational training, experience and skills. They felt bored and idled giving the fact that their work do not require their ability and capability. Hence, employees in this category experience lower job satisfaction, frustration and dejection. Mentally unchallenged individuals are unmotivated and bored with their work and consequently dissatisfied as a result (Herzberg, 1966). Underemployed staff members lose interest in, and develop negative attitude toward their careers especially when there is slim hope for advancement on the job. They are also dissatisfied because their educational achievements and skills are underutilized and they receive no return on their excess educational qualification. They thus invest less energy in their jobs as working hard in inferior jobs is pointless and developed high quit intention and seriously search for better jobs.

Equally, underemployment is detrimental to psychological well-being of the affected staff as they are not happy working where they are poorly remunerated. Consequently, their mental health is adversely affected. Finally, the affected employees become hurt, distressed and develop lack of commitment to job, which consequently lead to organizational retrogression and low productivity.

This development is not what is needed in the Local Government that is saddled with the responsibility of developing and providing necessary amenities to the local populace. No wonder the local government remains undeveloped, as where there is no motivation and commitment, there will be no progress. It is high time that the "politicians" and "powers-that-be" in the local government setting for once gave room for merit and remove mediocre from running the affairs in the local government as there are many competent hands in the local government who have no opportunity to use their knowledge, training and experience on the job in the local government.

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RETHINKING EDUCATION FOR SUSTAINABLE DEVELOPMENT IN AFRICA

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Abstract

This paper makes a case for a revalorization of all indigenous knowledge in general and African indigenous knowledge in particular. It invites African policy makers and intellectuals to do a little more to bring indigenous knowledge within African educational stream with the view to increasing the potentials of development in Africa. Since there are a variety of educational theories, including the functionalist, the conflict, the critical, the pragmatic and the Afrocentric educational theories, the paper advises that the adoption of the pragmatic and Afrocentric educational theories will integrate African indigenous knowledge and current educational systems, thereby promoting the development of a holistic African educational system. Consequently, three recommendations have been proffered that will enhance the development of indigenous knowledge and integration of same within the current African educational system.

Keywords: Education; Indigenous knowledge; Educational theory; Sustainable development;

Introduction

The recognition of the importance of education as a critical tool for development is not only widespread but it is both international and unquestionable.

Investment in education has traditionally been justified by optimistic assumptions, the first being that an educated population contributes to the socio-economic development of the society as a whole, and the second, that education contributes to the well-being of individuals within the society (Fagerlind and Saha, 1989, p.3).

Much earlier, literacy has been fingered as one of those typologies of basic education that has the potential of raising both the productivity of new literates and that of those working in association with any group of new literates (Anderson, 1966; Blaugh, 1966). Respectable international organizations such the World Bank and the United Nations recommend education as a tool both for poverty alleviation and for the promotion of social development as education is said to equip with the right skills, engender the right attitudes and produce the needed knowledge for facing major life challenges (World Bank, 2009; UN, 1948). Of late, human capital theorists submit that the human being is able to enjoy enhanced value and a higher status among the created beings, only as a result of the transformation s/he is able to bring about within himself/herself through education (Oxal, 1997).

However, if the world is unanimous in regards to the advantages and rewards of education, a similar complete agreement is not available when the issue concerns the nature and contents of education. In other words, while everyone agrees that education is a sine qua non for a good and successful life, there is yet to be agreement on that which should constitute education everywhere.

The meaning of education

Education is both a means and process of transmitting the knowledge and civilization of a society to present and future generations with the view to facilitating the continuity of the said society.

In the ongoing evolution of humanity, civilizations and the cultures they produce are judged by two relative standards, relative in the sense that the standards arise out of human value preferences. One standard is the breadth and depth of the intangible substance of these cultures that survives their material acquisitions. This includes the arts, philosophies, faiths, sciences, morals, manners, and other refinements with which each culture is identified. The other standard is the extent and depth of the contributions these refinements make in the lives of those to whom they are bequeathed. Education in the broadest sense is not only the art that awakens and cultivates these refinements within each society in each individual according to his gifts and opportunities, but it is also the skills that help transmit, preserve

and further cultivate them in the experiences of those who inherit them (Nakosteen, 1974, p.9) .

Education then tends to serve the society that gave birth to it. Not only does it serve as an instrument and process for awakening the desired qualities in the individuals making up the society, it serves also as a channel for the perpetual transmission to all generations, of the values that the society holds dear.

However, education carries out these roles and others within pretty diverse perspectives. These varying perspectives are captured by existing theories of education. The major among these theories include the functionalist, conflict, critical education, pragmatic, and afrocentric theories of education.

The functionalist theory

The functionalist theorists view education as an institution of socialization that drills learners on various societal roles such as how to get along with others as well as prepare them for adult roles. Within this school of thought, education helps students learn rules and norms of the society particularly conformity to law and respect for authority in ways that breed a docile people who, in many ways become content with their subordinate or master-serving roles. Cowburn (1986, p.105) reveals that subordination has to be taught: “it is not something which is simply there, a happy occupation of one’s place in society is not automatic – the incumbent has to be educated for it”.

Thus, education may be employed for pre-determined purposes such as for molding docile human beings (Cowburn, 1986), for making rebellious or anti-establishment individuals (Psacharopoulos, 1980) or making learners aspire towards social mobility through specific educational channels (Fagerlind and Saha, 1989).

The Conflict theory

Conversely, conflict theorists opine that education reinforces and perpetuates social inequalities based on class, gender, race or ethnicity. Generally, they view education from a negative perspective; they particularly posit that opportunities for acquiring quality education are largely determined by factors other than one’s academic ability. In this respect, education serves to preserve the status quo while encouraging students to participate and compete on the assumption that they are competing on level terms. Cowburn (1986) comments that education, as a [state] provided system of instruction enters history’s stage, first and foremost, as a weapon of one class to be used against another. As a result, the dominant class has to craft an education system that would only teach the working class to know its place in society and adapt to it. This is a kind of controlled education designed to counter revolutionary doctrines and serve the interests of the bourgeoisie. Freire, (1985) opines that it would be extremely naïve to expect the dominant classes to develop a type of education that would enable subordinates classes to perceive social injustices critically.

Specifically, education legitimizes inequalities under the guise of meritocracy whereupon cultural ability weighs more than natural intelligence. In this respect, conflict theorists argue that education molds students from lower social classes to accept and retain their social status as members of the lower social classes. Whilst the theorists are not entirely for a total rejection of education, they are nonetheless critical of the capitalist model of education. Essentially they argue that,

Education is a tool of the capitalist state, operates to maintain the status quo, enabling those in power to reinforce their privileged position and deprives those not in power, either by socialization into a passive role...(Fagerlind and Saha, 1989, p.58).

In many respects, learners from wealthy families have inbuilt advantages. Their mere social status means that they are already ahead of the rest of the learners even before the race has started. This cultural capital helps learners from upper social classes to navigate challenges such that those with dominant cultures benefit more than those who have to struggle to identify with what may seem as foreign cultures.

Conflict theorists cite the case of tracking, a formal system where learners with similar learning difficulties or needs are sorted and grouped together with the belief that they will enjoy specialized attention from their assigned teachers, as an arrangement that leads to self-fulfilling prophecies in

which learners remain content with their low self-worth (Education Week, 2004).

The critical education theory

The critical education theory has its roots in the neo-Marxist ideology (Giroux, 1983). Critical educational theory sees school as an enterprise that is not neutral as it only espouses the views and lifestyle of the mainstream. According to Apple (1993), contrary to the claim that education increases possibilities for individual development, the main function of education is the reproduction of the dominant ideology. The rural training centers in Botswana for instance, instead of promoting local knowledge, promote Western ideas (which are dominant) without relating them to what the local people have been practicing. Formal education in this regard is seen as disempowering the already disadvantaged people in communities and empowering the affluent.

This argument applies well to the situation in Botswana. For example, the Botswana rural training centers cater for local farmers who are mostly poor farmers who make a living mostly out of subsistence farming. Relying only on modern knowledge makes the rural training institutions' efforts ineffective because farmers are unable to utilize whatever knowledge they get from the training. For instance, Gboku *et al.* (2008) discovered that after going through the training, farmers do not use the supposedly new knowledge they acquired because it was either too complicated or expensive to use. For example, it was revealed that it is easy and far cheaper to use Motswere (a local tree which is burnt and the ash is sprinkled on seeds for preservation) powder for seed preservation than complicated scientific pest control techniques (p.104).

According to Aronowitz & Giroux (1993) Critical educational theory also argues that schools or modern learning occupies an important but paradoxical place between daily experiences and dreams for the future which can be translated as alienating people from their culture and environment. Perhaps the reason why most farmers do not practice what they have been taught at the rural training centers is that they do not want to be dragged out of their culture and into a Western culture which makes up the core of the curriculum content. The curriculum content does not seek to complement existing farmers' information and practices but somewhat radically delivers new knowledge and practices that fail to acknowledge the existence of the local knowledge. This might be one of the reasons why rural training centers have failed to make a significant impact on rural farming.

The pragmatic education theory

John Dewey (1859-1952) is credited with the birth of the pragmatic theory of education (Neill, 2005). Dewey's submission that "education is life itself" emphasized the utilitarian attribute of education. Instrumentalist education, as Dewey's theory of education was also known, is expected to impact the conduct of the learner to such an extent that s/he is able to reproduce this impact in a material or pragmatic way.

However, the pragmatic educational theory emphasizes the fact that all conduct, action and behavior that may have been activated by education is expected to be operationalized within acceptable social precincts. Thus,

Our efforts to survive, to seek pleasure, to find meaning, and to be social, are facts of social existence. The ways we survive or fail to do so, the ways we find pleasure or fail to do so, the nature of the meanings we find, the quality of our social existence: these are what need to be found out, and the means by which we take action in finding them, together with the outcomes gained, constitute the very meanings that are brought into existence "through education" (Chambliss, 1987, p.127).

The Afrocentric theory of education

The Afrocentric educational theorists are thinkers that conduct all discourses on Africa from the center of African consciousness. They are individuals who have lived directly or in a vicarious sense, the profound experiences of Africa. Subsequently, these individuals have reflected on their own and

others' experiences and have evolved theories that derive their rationale and force from the center of African world view.

Afrocentric theorists hold that Africa possesses its own peculiar body of knowledge. This body of knowledge was accumulated through centuries and it was and continues to be derived from Africans' view of the world (Ayittey, 2008; Asante, 1995; Ocitti, 1988). Over time, this corpus has organized itself into systems of knowledge addressing specific aspects of African life such as technology, health, agriculture, and crafts to cite but a few. Consequently, this body of knowledge has come to be referred to as African Traditional Knowledge Systems (TKS) or Indigenous Knowledge Systems (IKS) or Indigenous Knowledge (IK).

Education, (that is, that which can be taught, the methods for teaching that which can be taught, those potentially responsible for the eventual teaching, etc.), is one of the systems making up the African Traditional Knowledge Systems (Omolewa, 2007; Ajayi, 1998).

Education within the context of Africa

Africa may be said to demonstrate three main phases of existence, namely, the pre-historical phase and the historical phase within which the colonial historical phase makes a significant and important dovetail. The pre-historical phase is that phase of the black continent's existence for which written records took time to be made. Although oral records abound on this phase of the continent's existence, these oral records are just about now being transcribed into written records to feel the gap left in the books on the History of the World within which Africa is either erroneously or maliciously described as "ibi sunt leones", meaning 'here be lions' or as great empty spaces largely marginal and subordinate" (Ki-Zerbo, 1995 p.1). The historical phase of Africa is that phase during which records of facts and fables were able to be taken down in written forms. Little was known about Africa by Europe before the 16th and 19th centuries; consequently initial interactions between Europe and Africa gave rise to a lot of misinterpretations and discoveries. For example, "The discovery of Ife's now famous naturalistic bronzes, terracotta, and stone sculptures challenged European assumptions about the nature of African art and initiated significant debates concerning the antiquity of its past" (Department of Arts of Africa, Oceania, and the Americas (DAAOA), 2000).

However, if the historical phase of Africa was a difficult one that has generated volumes of controversial stories about Africa, this phase harbored within its womb two contiguous and even more difficult eras whose experiences remain painfully indelible within the consciousness of Africans till date. Those more difficult phases are known as the slave trade period and the colonial era and they jointly constitute, within the context of this discussion, the third phase of African continent's existence.

While records predating the slave trade and colonial history of Africa indicate that Traditional African Education (TAE) is the type of education that is endogenous to Africa (Ki-Zerbo, 1995; Ajayi, Goma and Johnson, 1996), the colonial experience has come to alter this endogenous education so deeply that it became as good as having been abolished and annihilated. Traditional African Education got supplanted by Western education and during and after the colonial period, Western education began and continued to be practiced within the cities and large agglomerations of Africa which by the way has itself become modern Africa as distinct from traditional Africa.

However, the practice of Western education has not been smooth sailing. The nearly two centuries of the practice of Western education has been greeted by sporadic calls for, and actual educational reforms in Africa (Kupferman, 2013; Mignanwande, 2012; Assie-Lumumba, 2006; Adick, 1998) because it has been found that while Western education has served to globalize Africa, its processes and contents suffer from partial incongruity with African realities when thoughtlessly operationalized within the African environment.

Even educational statistics bear witness to the fact that Western education does not serve Africa as well as it does Western nations. For example, while an average of 96% of children in Western societies are enrolled in schools (Organization for Economic Cooperation and Development (OECD), 2012), about 50% of African children of school age are not able to secure placement in primary schools (UNESCO, 2011). Additionally, while an average of 62% of qualified candidates in OECD countries get placement in universities (OECD, 2012) the gross enrolment for tertiary education in Africa stands at

a paltry 7% (Tilak, 2009).

This situation brings to the fore, the question pertaining to the role of education within human society. Specifically, what basic benefit are nations expected to deliver through education? What critical mass of the national population is expected to attain education for the expected benefit from education to be manifest? The basic benefit nations are expected to deliver through education is development within the mental, economic and ecological realms. As observed from nations with fully developed Western education system, an average of 80% of the population is expected to benefit from basic education and about 40% of the population is expected to benefit from tertiary education before any meaningful social development may be derived.

Currently, Africa is far away from these targets. Yet, Western education has been around Africa for about two centuries. If after two hundred years, Western education has not been able to deliver the desired level of development, it might be that Africa is yet to be pragmatic in its choice of educational model. Indeed it has been long suspected that an aspect of the functionalist theory of education has been deliberately promoted within Africa over these centuries wherein the interests of Western nations are protected in Africa through the promotion of an education that is not rooted in African realities (Kupferman, 2013; Occiti, 1988).

How difficult it is to disagree with the proponents of the educational conspiracy and functionalist theories when it is known that a people learn better and most efficiently when learning is organized to progress from the known to the unknown, yet, African nations, with the assistance of international development partners, have consistently excluded the knowledge familiar to the people (Indigenous Knowledge) from education and have adopted non-homely method of education (the school system) in promoting most of the education on the continent.

Education as tool for sustainable development in Africa

Where the aim of education remains development, and where the process of development is to be driven by the people development is to serve, both the process and methods of education and indeed the content of education must be run in a way that is understood and malleable by the people.

One easy and logical way of establishing an environment such as this, is through the deployment of indigenous knowledge within the current African educational enterprise.

Indigenous knowledge

Indigenous knowledge is the local knowledge that is unique to a culture or society. Indigenous knowledge can also be known as local knowledge, folk knowledge, people's knowledge, traditional wisdom or traditional science (Nakashima *et al*, 2000). For the World Bank (2004), indigenous knowledge implies a large body of knowledge and skills that have been developed outside the formal education system. Indigenous knowledge is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation, health care, education, conservation and the wide range of other activities that sustain a society and its environment in many parts of the world for many centuries. For Africans, indigenous knowledge is not something elusive, as many modernists would argue; rather it is about what local people know and do, and what local communities have known and done for generations (Warren *et al*, 1996). This knowledge was therefore built on experience and not only on theoretical basis. Gorjestani (2005) argues that knowledge is experience and everything else is information. Indigenous knowledge should remind us that knowledge does not only come from books, computers but from the interpretation of our environment (Classen, 1999).

For example, indigenous people have a wide knowledge of the ecosystems in which they live and of ways of using natural resources in a sustainable way. Although, colonial education has tried hard to discountenance this knowledge, current environmental catastrophes in Europe and elsewhere in the world are vindicating possessors of this type of knowledge. However, due to the long neglect suffered by this type of knowledge, much indigenous knowledge is being lost and, along with it, valuable know-how about ways of leading a sustainable life both ecologically and socially. Therefore, the view is canvassed here that the incorporation of indigenous

knowledge in the school and training curricula throughout Africa will not only strengthen the effectiveness of the rural training curricula but will also empower the farmers and supplement the knowledge currently taught the young ones in our schools. According to Gorjestani (2000), utilizing indigenous knowledge helps to increase the sustainability of development efforts because the indigenous knowledge integration process provides for mutual learning and adaptation which in-turn contribute to the empowerment of local communities. Empowerment of local communities cannot be over-emphasized because each and every development effort is meant to empower communities especially the poor who particularly consider indigenous knowledge as the only asset they control and certainly one with which they are very familiar with (Gorjestani, 2000). Therefore, the philosophy of teaching/developing people 'from the known-to- the unknown' will go a long way in helping farmers and rural dwellers to relate easily with the training that is offered in rural training centers throughout Africa. Also the curriculum will be responsive to the needs of rural people.

Indigenous knowledge is usually passed from one generation to the other through words of mouth, song, dance, rituals and practice. Ellen & Harris (1996, p.45) succinctly put it when they said "indigenous knowledge is orally transmitted or transmitted through imitation and demonstration". This knowledge transmission was usually done within informal settings and was done formally only in a few occasions e.g. during initiation schools, during formal marriage meetings. Also, the knowledge was constantly reinforced by experience and trial and error. In fact Warren *et al* (1996, p.32) highlighted that "For Africans, indigenous knowledge is not something elusive, as many modernists would argue; rather it is about what local people know and do, and what local communities have known and done for generations- practices- that developed through trial and error and proved flexible enough to cope with change". This supports the effectiveness of passing on indigenous knowledge to the next generation or to the learner; it did not only rely on theories, experience was upheld. This is further supported by the views of Gorjestani (2005) when he echoed that knowledge is experience and everything else is information. He is arguing for knowledge that has been built on experience and not only on theoretical basis.

Application of Indigenous Knowledge

One issue that the request for the introduction of Indigenous knowledge may throw up is the place to carve for it within the present system of education in Africa. One immediate area, indigenous knowledge may be profitably deployed is in the area of rural education/development or community development. According to Gorjestani (2005):

Indigenous knowledge is used at the local level by communities as the basis for decisions pertaining to food security, human and animal health, education, natural resources management, and other vital activities. Indigenous knowledge is the key element of the social capital of the poor and constitutes their main assets in their effort to gain control of their own lives. For these reasons, the potential contributions of indigenous knowledge to locally managed sustainable and cost-effective survival strategies should be promoted in the development process. Indigenous institutions, indigenous appropriate technology, and low-cost approaches can increase the efficiency of development programs because indigenous knowledge is a locally owned and managed resource (http://www.unctad.org/trade_env/test1/meetings/tk2/worldbank.pdf).

People in different locations develop ways or means of survival depending on the environment they live in and the experiences they have. Such was the case of North Africans who have been successful with Traditional Water and Wastewater Management Techniques. Their success proved that:

Utilizing ecologically sensitive indigenous and alternative methods for wastewater disposal and treatment can help achieve two important pre-requisites for sustainability: lessening the financial burden on municipalities that rarely have the means to apply conventional methods; and respecting local ecosystems... (<http://www.gdnet.ws/pdf/neamatalla.pdf>)

It equally proved that successful approaches to local and national development may be derived "from traditional know-how developed over centuries of adaptation to arid conditions that is on the verge of disappearing..." (<http://www.gdnet.ws/pdf/neamatalla.pdf>)

Indigenous knowledge therefore is an important resource and it needs to be protected, further developed, emphasized, and more importantly sustained. The local people, more especially those in the rural areas, are knowledgeable on how to make a living and how to solve the problems they encounter in life through indigenous processes. Through teaching and indigenous knowledge oriented researches, the potentials of indigenous knowledges can be fully harnessed for the benefit of rural dwellers and national development within the context of Africa (Biao, 2011).

Recommendations

In line with the demonstrated usefulness of indigenous knowledge within the context of African development, it is here recommended that

- More researches should be commissioned that will unearth greater values of indigenous knowledge systems.
- The acquisition of indigenous knowledge should be promoted among both rural and urban dwellers and among the young and the old within Africa and its incorporation into the formal curriculum.
- African indigenous knowledge being an aspect of African corpus, and the acquisition of African corpus being usually promoted within the non-formal education environment, infrastructure should be put in place for the promotion of indigenous knowledge to be carried out through the non-formal education process most of the time.

Conclusion

This paper has argued that the world is unanimous in regards to the advantages and rewards of education. However, the bone of contention lies in what should constitute education everywhere. Of fundamental importance is that education as a tool for sustainable development should be delivered in such a way that it is understood and malleable by its user, hence the authors' call for a revalorization of indigenous knowledge.

Although indigenous knowledge has been relegated to the background for a long time, its worth is gradually being appreciated not only by African intellectuals but also by persons who have worked hard in the past to annihilate this system of knowledge. The time has therefore come for African intellectuals to promote investigations in this area of knowledge with the view to unraveling both the beauties and usefulness of indigenous knowledge even within modern times.

During this process of revamping and revitalization of indigenous knowledge, all temptation at westernizing indigenous knowledge through excessive formalization of its processes should be resisted.

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EXPLORING THE RELATIONSHIPS BETWEEN ACADEMIC BURNOUT, SELF-EFFICACY AND ACADEMIC ENGAGEMENT AMONG NIGERIAN COLLEGE STUDENTS

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Abstract

The level of students' engagement in their academic activities has continued to attract the interest of researchers and education administrators. The need to understand the factors that inhibit or enhance students' academic engagement is therefore necessary especially in developing countries where level of education is generally low. This study explored the relationship between academic burnout, self-efficacy and academic engagement among Nigeria university undergraduates (college students). Two hundred respondents were sampled from five departments of the faculty of social sciences in a state-owned university in North Central, Nigeria. The results of the regression analyses revealed that academic burnout was negatively related with academic engagement. Self-efficacy was positively related with academic engagement. Implications of the findings to learning in Nigerian university context were discussed.

Keywords: academic engagement; self-efficacy; burnout; students; Nigeria

Introduction

Education is the livewire of every nation. It is the core of every form of development, a means by which citizens are equipped with the necessary knowledge and skills that will be useful in nation building. The World Bank/UNICEF (1996) reported that education in general, and university education in particular, is fundamental to the construction of the knowledge economy and society in all nations. Thus, every nation of the world has accepted education as the springboard of societal development. However, a badly managed, crisis ridden, and disorganized system of education tend to portend negative consequences on the developmental efforts of nations (Famade, 2012). This seems to be the case in Nigeria. There is a general outcry that the standards of education are falling and morals flagging in Nigeria (Arong & Ogbadu, 2010). Numerous factors have been pointed out. Some blame students for this apparent decline in quality of education and moral values (Famade, 2012). Some think that the decline is due to government inaction on education, that the government has not done enough to help the education sector (Arong & Ogbadu, 2010; Belo-Osagie & Olugbamila, 2010; Famade 2012). Others could feel that the teachers are not doing enough and thus are responsible for the woes in which we have found ourselves. Teachers on the other hand blame parents and the children (Arong & Ogbadu, 2010; Famade, 2012). Some authors (e.g., Famade, 2012) fault policy implementation and frequent changes in government especially during the long military rule as the major cause of decline in the education system in Nigeria.

However, various intervention strategies have been taken to salvage this situation through formulation and implementation of a number of education policies such the Educational Trust Fund (ETF), Tertiary Education Fund (TETFund) and other strategies to revamp this fallen standard and get students back to classrooms and to be more committed, but not much have been achieved. This may suggest that the problem of the education sector in Nigeria may not be entirely due to structural and/or administrative ineptitude. This is because even when the government takes positive steps to lift the standards of education, the results often achieved may not commensurate with the effort put forth. It is out of this concern that the present researchers felt a justified need to look at the individual student to ascertain whether students are over stretched based on workload or not motivated to benefit from education outcome by not being engaged with their academics. Therefore the present study attempts to examine whether academic burnout and self-efficacy will be related with academic engagement among Nigeria university undergraduates.

Not quite long ago, researchers used the term engagement to refer to the quality of effort students expend on educationally purposeful activities that contribute directly to desired outcomes (Hu & Kuh, 2002). Generally, academic engagement is viewed as multi-dimensional construct that refers to students' psychological investment of effort toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote (Newmann, Wehlage, & Lamborn, 1992). Engagement can be indicated by both emotional and behavioural factors (Newmann, 1992). Some authors (e.g., Finn & Rock, 1997) suggest that there are three levels of behavioural engagement, with the first involving basic school attendance and completion of schoolwork, the second involving participation in class when requested by school officials, and the third involving active participation. Some other researchers (e.g., Connell, Beale-Spencer, & Aber, 1994) have suggested that factors such as how much students like school, how bored they feel in school, and how strongly they feel that they belong in school are emotional engagement. Later Fredericks et al. (2004) added another dimension to the definition of engagement. They indicated that engagement contains behavioural, emotional, and cognitive components. Emotional engagement includes affect, interest, identification with school, and belonging. Cognitive engagement is centred on self-regulation, strategic thinking, and psychological investment. In the present study, we adopt Schaufeli, Salanova, González-Romá and Bakker's (2001) definition of engagement as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption.

The importance of student engagement in academics has been recognized by educators, as it has been observed that far too many students are bored, unmotivated, and uninvolved, that is, disengaged from academic and social aspects of school life (Appleton, Christenson & Furlong, 2008). Suggestions have been made to the fact that although attendance at school is becoming compulsory in many states of Nigeria, laws may regulate the structure of the educational system, to substantially influence academic and social outcomes. There may be no better time to ensure that students are engaged in their academic than now due to enormous social and economic pressure young people now face. There are many positive outcomes of students' academic engagement. Student engagement in school activities promotes academic achievement (Skinner, Zimmer-Gembeck, & Connell, 1998), increases graduation rates (Connell, Spencer & Aber, 1994), decreases students' decisions to drop out of school (Alexander, Entwisle & Horsey, 1997), improves student performance and increases positive expectations about academic abilities (Skinner et al., 1998).

Understanding what motivates a student to strive for excellence remains a critical issue in education today. Most educators agree that there are numerous factors affecting any given student's level of academic engagement. It is also argued that burnout and self efficacy are factors that diminish or propel academic engagement. However, results on the relationship between burnout, self-efficacy and academic engagement have been very inconsistent. Some researchers found that these constructs are not significantly related to academic engagement (e.g., Abelson, 1979), while others (e.g., Burton & Powling, 2005) established that significant relationship exist between self-efficacy and academic engagement and between burnout and academic engagement. Besides, most of the studies were conducted in Western countries (e.g., Murdock & Anderman, 2006; Staats, Hupp, Wallace & Gresley, 2009) and thus the full understanding of this relationship runs the risk of being culturally biased. Replicating such study in another continent other than Europe and America, especially in developing countries of Africa will likely clear this bias. The present study therefore aims at exploring the relationship between academic burnout, self-efficacy and academic engagement among Nigerian college students.

Academic Burnout and Academic Engagement

Burnout was initially found among human service professionals, that is those in constant interaction with people, like nurses, doctors and teachers, with an emphasis on the interpersonal relationship between provider and recipient (Freudenberger 1974; Maslach, Schaufeli & Leiter, 2001). But due to the pressure of globalization and intensive business competition engendered by economic recession, this concept has been extended to professions that are less people-oriented (Zhang, Gan, & Cham, 2007). Researchers (e.g., Pines and Nunes 2003; Schaufeli, Martinez, Marques-Pinto, Salanova, & Bakker, 2002) have also observed burnout symptoms in non-occupational contexts, such as marriage, sports and college study.

Burnout is defined as a negative work-related state of mind characterized by exhaustion, a sense of reduced effectiveness, and decreased motivation. Leiter and Maslach (2001) proposed that there are six areas of work where a mismatch with an individual could lead to burnout: workload,

control, reward, community, fairness, and values. When there is a mismatch between the situation and the individual burnout is experienced. This is a subjective phenomenon in that for one person the workload may be excessive, because it does not match their expectations; for another person that same workload may not be a problem, as it may match their expectations.

Academic burnout among college students refers to feeling exhausted because of study demands, having a cynical and detached attitude towards one's schoolwork, and feeling incompetent as a student (Zhang et al., 2007). In contrast, academic engagement refers to a high level of energy and mental resilience when studying, deriving a sense of significance, enthusiasm, inspiration from study, and being fully concentrated and happily engrossed in one's study, which is antipode of burnout (Schaufeli, Martinez, Marques-Pinto, Salanova, & Bakker, 2002). In other words, burnout was referred to as an erosion of engagement (Maslach et al. 2001). In particular, vigor and dedication are directly opposite to exhaustion and cynicism, spanning two underlying core dimensions (named activation and identification), whereas absorption was found to be a unique component of engagement (Schaufeli & Bakker, 2004).

The relationship between burnout and academic engagement is rather weak and inconsistent, particularly when objective engagement indicators are used instead of self-reports ratings (Schaufeli & Enzmann, 1998). This also applies to the relationship between student burnout and general academic performance. For instance, Nowack and Hanson (2003) found a weak negative relationship between burnout and other related performance in university students, and McCarthy, Pretty and Catano (2006) found a significant but low negative correlation between students' level of burnout and their grade point average. Recently, using a longitudinal design, Stewart, Lam, Betson, Wong and Wong (1999) found that academic performance during medical school was negatively related to reported stress levels (i.e., anxiety and depression). Garden (2001) also found a negative relationship between burnout and perceived academic engagement of undergraduate students. Students in Nigerian universities seem to experience a lot of stress due to infrastructural deficit as they cope with academic work. It is therefore hypothesized in the present study that academic burnout will be negatively related to academic engagement among college students in Nigeria.

Self-efficacy and Academic Engagement

Self-efficacy refers to individuals' beliefs in their ability to produce desired results to succeed in their chosen career (Wigfield, Byrnes & Eccles, 2006). It also enhances learning and performance (Bandura 1997). Bandura emphasises in social cognitive theory the construct of self-efficacy and its impact on learning, as this belief in one's own ability influences choice of activities and effort (Schunk & Zimmerman, 2006), engagement in the behaviours that are necessary to attain goals (Thomas, 2005), academic interest and motivation (Bandura, 1997), as well as growth of cognitive competencies and accomplished achievement (Pajares, 1996; Zimmerman, 2000). Self-efficacy has been found to consistently predict academic achievement (Bong, 2008) because of the fact that it has significant effects on effort and persistence. Students who demonstrate greater senses of self-efficacy are more likely to initiate necessary effort necessary for achieving a desired outcome and persist longer when facing academic challenges (Schunk & Zimmerman, 2006).

Self-efficacy is a person's judgment of their capability to organize and execute the course of action required to attain predetermined types of academic engagement. It is concerned not with the skills one has, but rather with the estimation of what one can attain with the skills one currently possesses (Bandura, 1986). Students who are self-efficacious tend to generate and test alternative courses of action when they do not initially achieve success. They perform better in the classroom because of their elevated levels of efforts and persistence and deal more effectively with problematical situations by manipulating the cognitive and emotional processes related to those situations (Bandura, 1997). An extensive body of research has shown that self-efficacy is directly proportional to undergraduates' grade point average (GPA) (Hackett, Betz, Casas & Rocha-Singh, 1992) and performance (Klomegah, 2007).

The relevance of self-efficacy in students' learning process is thus undeniable. Self-efficacy is important in enhancing students' comfort levels when facing examinations. In fact, changes in efficacy levels are strongly tied to changes in state of well-being such as burnout and engagement (Breso, 2007). Indeed lack of efficacy seems to play an antecedent role in burnout process rather than comprising an integral element of the burnout syndrome (Chemiss, 1993; Salanova, et al., 2003). Students exercise human agency-through intentionality and self-regulation through self-reaction and

self-motivation, and self-effectiveness about their capabilities, the quality of functioning and the meaning of their life and the paths they choose to take (Bandura, 2001).

Efficacy beliefs are the foundation of agency through their impact in the adaptation to our experiences, and their impact on other behavioural determinants (Bandura, 2001). The relationship between self-efficacy and actual academic engagement has been established empirically (e.g., Zimmerman, 1995). It has been found to consistently predict academic achievement (e.g., Bong, 2008) due to its effects on effort and persistence, because students who demonstrate greater senses of self-efficacy are more likely to put forth the necessary effort and persist longer when facing academic challenges (Schunk & Zimmerman, 2006). It regulates students' functioning in four ways: cognitively, motivationally, effectively and socially. Self-efficacy influences the way people face challenges, and perseverance in the face of adversity and lack of success. Efficacious students are likely to use structures as an opportunity and circumvent structural constraints when necessary for effective academic engagement. Thus, it is hypothesized that students' self-efficacy will be related with academic engagement.

Method

Participants

A total of 200 participants comprising 94 male and 106 female final year undergraduate students of Benue State University were randomly selected for the study. Final year students were chosen for the study because it is at this stage in students' academic endeavour that they are most likely to experience the greatest amount of stress, which usually culminates to burnout. Out of this number, 74 were married, 112 were single, 12 were divorced and 2 were widows. Their ages range from 17 to 53 years, with a mean age of 35.6 years. Religious affiliation of participants indicates that 172 of the participants were Christians and only 23 were Muslims while 5 were Orthodox. All the respondents were Nigerians from different ethnic groups. Out of the 200 respondents, 106 were Tiv, 57 were Idoma, 11 were Etulo, 20 were Igede, 5 were Igbo and 1 was Yoruba. Participation was completely voluntary and no incentives were given to encourage participation.

Instruments

The Maslach Burnout Inventory-Student Scale (MBI-SS) developed by Schaufeli, Martinez, Marquez-Pinto, Salanova and Bakker (2002) was adopted to measure burnout among students. The MBI-SS consists of 16 items that constitute the three scales for exhaustion, cynicism and efficacy. All items are scored on a 7-point frequency rating scale ranging from 1 (never) to 7 (always). The authors reported Cronbach's alphas range from .65 to .86 across three nationalities (Schaufeli, et al., 2002). The Cronbach's alpha for the Maslach Burnout Inventor-Student Scale for the present study is .78.

Self-efficacy was assessed with the General Self-efficacy Scale developed by Schwarzer and Jerusalem (1995). The scale is a 10-item scale that assesses a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events. Responses from the scale are made on a 4-point Likert-Type response format ranging from 1= not at all true, 2 = hardly true, 3 = moderately true, to 4 = exactly true. The scale has a Cronbach alpha reliability coefficient of .87 for the present study.

The Utrecht Work Engagement Scale-Students version (UWES-S) (short form) was used to measure students' academic engagement. It is a 9-item scale which has 3 subscales. The sub-scales include: vigor, dedication and absorption. The scale is scored on a 4-point Likert-type of 0 = never, 1 = rarely, 2 = sometimes and 3 = always. Cronbach alpha for the 3 subscales are .73, .76 and .71 respectively, and .84 for the total 9-item scale.

Procedure

The multi stage sampling technique was adopted to collect data from volunteer participants. In each department selected from faculty of social sciences of Benue State University, the researcher sought permission from lecturers to administer the questionnaire during lecture periods. The questionnaires have an introduction explaining and soliciting students consent to answer the questions and also assuring them of confidentiality of their responses. A total of 227 set of the questionnaires were

administered to the participants, but only 211 were completed and returned representing 92.95% return rate. Out of this number, 11 copies were discarded due to improper completion and only 200 copies were considered for analyses. The participants for the study were predominantly of Tiv extraction of Benue state, Nigeria.

Results

Table 1: Descriptive statistics and inter-correlations among study variables

Variable	Mean	SD	1	2	3	4	5	6	7
1 Academic engagement	17.25	4.68	-						
2 Age	27.32	4.70	.02	-					
3 Gender	-	-	-.06	.02	-				
5 Religion	-	-	-.14*	.06	.20*	.10	-		
6 Burnout	45.06	13.32	-.18*	.02	-.06	.05	.07	-	
7 Self-efficacy	30.87	5.49	-.18*	-.05	.10	-.10	-.06	.27**	-

Note: ** = P<.001

* = P<.05

A total of 200 participants completed the questionnaires. Gender (1= male, 2 = female); marital status (1= married, 2 = single, 3 = divorced, 4 = widow); Religion (1 = Christians, 2 = Muslims). Burnout and self-efficacy are coded so that higher scores indicated higher burnout and self-efficacy.

The results of the correlational analyses showed that only marital status ($r = -.24$), Religion ($r = -.14$) are the control variables that are related to academic engagement. Burnout was negatively related with academic engagement ($r = -.18$). The results equally revealed that self-efficacy was positively related with academic engagement ($r = .27$).

Table 2: Hierarchical regression results

Variables	Step 1	Step 2	Step 3
Age	.00	.01	.02
Gender	-.07	-.08	-.11
Marital status	-.24***	-.23***	-.21**
Religion	-.10	-.09	-.07
Burnout		-.16*	-.23***
Self-efficacy			.23***
R ²	.06	.06	.12
R ² change	.07	.03	.05
F change	3.91	5.63	10.59
F value	3.91	4.33	5.55

Note: * = P<.05; ** = P<.01; *** = P<.001

The results of the hierarchical regression analyses revealed that among the control variables tested in the model, only marital status had a statistically significant relationship with academic engagement. The results equally showed that burnout was a significant predictor of academic engagement ($\beta = -.16, P < .01$). Consistent with hypothesis 2, self-efficacy significantly predicted students' academic engagement ($\beta = .23, p < .01$).

Discussion

The study investigated the relationship between academic burnout, self-efficacy and academic engagement among Benue State University undergraduates. The results of the present study indicated that academic burnout significantly predicted academic engagement. This result shows that when the resources of students is split, it affects the way they handle various issues including their approach to academic matters. This result is consistent with the findings of Nowack and Hanson (2003), and McCarthy, Pretty and Catano (2006) who in their separate studies found a negative relationship between burnout and other related performance of university students. The result is equally in agreement with that of Stewart, Lam, Betson, Wong and Wong (1999) which found that academic performance during medical school was negatively related to reported stress levels.

The results of the study equally reveal that self-efficacy is positively related with academic engagement. The reason for this result may be that despite other impediments that may stand on the way of a student once they are self-efficacious they could benefit from school by becoming engaged with school activities. The result of the present study is consistent with various previous results on self-efficacy and academic achievement. For instance the result agrees with that of Bandura (1997), Zimmerman (2000) which found that self-efficacy is significantly related with academic interest and motivation, as well as growth of cognitive competencies. The present result is also consistent with the study of Hackett, Betz, Casas, and Rocha-Singh (1992) and Klomegah (2007) which established that self-efficacy is directly proportional to undergraduates' GPA and is also related with academic performance. The result of the present study seems to also agree with that of Bong (2008) which found that self-efficacy predicts academic achievement.

Implications of the Study

The results of the present study have some implications to students, educators and stakeholders. Since academic burnout has been found to be negatively related with academic engagement, it implies that there should be institutional policies and structures that should be designed to cushion the negative effect of burnout to learning. When this is in place the students stress level will be reduced which could make them to be more engaged with their academics. This is important since cognitive evaluation theory Deci and Ryan (1985) have also proposed that environments impact the development of intrinsic motivation. More so, more attention should be paid to recreation, since this enables the students to recuperate from stress, a good measure of it will most likely enhance their chances of focusing on their academics.

The results indicated that self-efficacy is positively related with academic burnout; this also has some implications. Since self-efficacy refers to a person's judgment of their capability to organize and execute the course of action required to attain predetermined types of academic engagement and also concerned with the estimation of what one can attain with the skills one currently possesses. It implies that students who are self-efficacious tend to generate and test alternative courses of action when they do not initially achieve success. This means that students should be encouraged to develop, have or cultivate efficacy attitude. This is important because it could serve as a buffer that may keep the students going despite their experience of burnout.

Limitations of the study

The present study, like other numerous studies, has some shortcomings. First among them is the problem often associated with all survey research (cross-sectional design) that does not allow for causal inferences; experimental or longitudinal studies have been suggested to take care of such challenges. The researchers acknowledge the limitation that causality cannot be claimed based on correlational patterns among the variables.

Another limitation of the study was that all data were collected via self-report measures,

which may lead to the problem of common method bias and inflated the predictive relationships between the study variables. Multiple sources of data will be preferable in that peer or supervisor reports should be able to adjust any bogus data a participant may offer. As such, we cannot draw conclusions regarding the possible changing relations between different dimensions of burnout and self-efficacy on academic engagement among Nigeria university undergraduates.

In conclusion therefore, since academic engagement is important in the overall performance of students in their chosen course of study, it is suggested that academic burnout should be carefully and thoroughly checked for students to fully benefit from school outcomes. Otherwise efforts of policy makers, teachers and even parents to encourage and support students to engage in their academics may not yield the desired results. Also, it may be important to include in addition to other academic trainings, programmes aimed at helping students develop self-efficacy to enable them become engaged in their academic work.

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SENSELESSNESS AND MEANINGFULNESS IN SELECTED VERBAL AND NON-VERBAL ENGLISH EXPRESSIONS AMONG NIGERIA ENGLISH LANGUAGE USERS

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Abstract

This paper examines the 'senselessness' and 'meaningfulness' of some English (verbal/ non-verbal) expressions. The paper thus, sets to consider the notion of 'making sense' from three different perspectives: the sense of signs and symbols, affixation and the alphabet. Two linguistic approaches are adopted to carry out this study; grammar and semantics. In grammar and as generally acclaimed, a sentence is a group of words formed in accordance to the grammatical rules of a language in order to make a complete sense to both the speaker and the hearer (Kroeger,2006:4;Thakur,2007:8;Kreidler,1998:27&Kroeger,2006:5). In semantics, the expression, 'making sense' is a significant phenomenon. Thus, the paper discovers that the definition of a sentence as generally acclaimed is too exclusive. This is because there are some English expressions which though not expressed in sentence forms, still meet the criterion of 'making a complete sense'. However, the definition of a sentence as earlier stated, does not rule out the 'senselessness' of a sentence because the expression 'It is hot' for example, is only meaningful in certain context but senseless because there is a zero argument between 'It' and 'is hot'(Kreidler,1998:68).The paper concludes by saying that 'senselessness' and 'meaningfulness' are intertwined because some senseless expressions can make meaning.

Key Words: Senselessness, Meaningfulness, Verbal and Non-verbal English Expressions

Introduction

The notion of *sense and reference* has been variously addressed by scholars in the forefront of research. Scholars like Saeed, Kreidler and Frege to mention but few, believed that the duo are concerned with word/sentence meaning rather than word/sentence alignment. To these exponents of word/sentence interpretation, *sense and reference* are one and the same. Today, the notion of sense and reference has been confined to two distinct linguistic branches. Thus, while 'sense' is purely 'semantic in approach', 'reference' is both 'grammatical and semantic'. The paper therefore, intends to shed light on the discrepancies and interplay between *sense and reference* on the one hand, and *senselessness and meaningfulness* on the other by considering some English sentences and statements from the perspectives of the sense theory and empirical verification respectively.

The Sense Theory and Empirical Verification

Users of language often times, misinterpret the two concepts, 'sense and reference'. As common issues in semantics, they are interrelated. According to Frege, the meaning of an expression is 'sense' while what the expression refers to is termed 'reference'. In other words, while 'sense' shows the semantic links between the elements of a sentence or proposition, 'reference' intends to indicate or represent by defining the specific entities in a sentence or proposition (Saeed2006:12). Moreover, 'sense' defines the syntactic balance of a sentence or proposition while 'reference' defines the different elements or items of a sentence or proposition. Let us consider the following examples:

S P C A

- (1) The white house/ is /the W.C. closet/ in my house.
- (2) The white house /is /the Science building/ at Obafemi Awolowo University.
- (3) The white house /is/ the government seat/in the United States.

Sentences (1-3) have the same sense but different referents. On 'sense', each of the three sentences i.e., Sentences (1), (2) and (3) has similar syntactic structure i.e., the SPCA structure; S(subject), P(predicator), C(complement) and A(adjunct) respectively. In addition, there is a re-occurrence of the expression, 'white house' at the subject position of each sentence. On 'reference' each of the three sentences has different referents. In other words, what 'white house' in each sentence represents or

indicates differs. In Sentence (1), 'white house' refers to the *W.C. closet*. The same 'white house' refers to the *Science building at Obafemi Awolowo University* and *the United States seat of government* in Sentences (2) and (3) respectively.

Surprisingly, semanticists and philosophers of language believe in the 'sense of a sentence'! This concern and belief was developed in the twentieth-century movement known as the scientific empiricism or logical positivism; a movement significant for the analysis of a language with a view to re-constructing the most acceptable criteria for its meaningfulness. The movement declares any statement not empirically verifiable meaningless. In other words, the meaning of a statement is tied to its method of verification (Blackburn 2005:215). Ayer (1970:35) also wrote on what is regarded as the bible of logical positivism. In his book, *Language, Truth and Logic*, Ayer opines that:

...a sentence is factually significant to any given person, if, and only if, he knows
how to verify the proposition which it purports to express- that is, if he knows
what observations would lead him, under certain conditions, to accept the
proposition as being true, or reject it as being false (Ayer 1970: 35).

Following from Ayer's, a sentence or proposition in its entirety, must denote/connote the existence or non-existence of entity/entities as either true or false. Some language experts have also accepted and developed the logical positivist criterion of meaning (Kreidler 1998:63). Thus, two substantive criteria for the meaningfulness of a sentence have evolved viz-a-viz:

(i) A sentence must be well-formulated; that is, it must be grammatically or logically correct and; (ii) A sentence must be empirically testable, that is, verifiable (Skirberkk & Gilje 2000:427)

Consider the following sentences:

- (4) The weather is hot.
- (5) It is hot.
- (6) The cat is running.
- (7) It is raining.

Remarkably, Sentences (4-7) state certain facts about the actual world. However, not every instance of the word combinations in the sentences is opened to empirical verification (Kreidler 1998:63). While Sentences (4) and (6) are verifiable empirically, because they are statements, Sentences (5) and (7) are not. Sentences (5) and (7) can only make sense in specific contexts. The meaningfulness of Sentence (4), 'The weather is hot', is tied to the fact that the word 'weather' refers to a certain event in the actual world and thus, liable to *achieve the* goal of human communication. The same is applicable to Sentence (6) where the expression, 'The cat' makes a complete sense because it refers to a particular animate entity in the actual world. Sentences (4) and (6) are thus, typical representations of the referential theory of meaning which states the connection between a word and its referent (Thakur 2007:122-130). The same Sentences (4) and (6), also describe the relationship by which a language hooks onto the world (Saeed 2006:12). By implication, Sentences (4) and (6) show the relationship between language and what it represents in the outside world (Thakur 2007:13).

However, Sentence (5), 'It is hot', does not, in all instances, make a complete sense except in the context in which it is used. Ordinarily, a sentence with a 'pronoun subject' will not make a complete sense because it can elicit a question. Sentence (5), 'it is hot' can elicit a question, 'what is hot?' It will sound ridiculous to offer the expression, 'it' as a satisfactory response to the question, 'what is hot?' This suffices to establish the fact that, there is no logical connection between 'It' and 'is hot'. Thus, Sentence (5) is a 'zero argument' which shows no referential relationship between the subject, 'It' and its predicate, 'is hot' (Kreidler, 1998:68). On the contrary, Sentence (7), 'It is raining' despite its syntactic semblance with Sentence (5), 'It is hot', makes sense. Though a 'zero argument',

Sentence (7) refers to the category of sentences termed, **weather predicates** (Kreidler, 1998:68). As a weather predicate, Sentence (7) will pass as an utterance in relation to the 'state of the weather'. Thus, Sentence (7), 'It is raining' will be empirically verifiable given its 'circumstantial stance.' The explication shows that coherence or meaning is achieved in a sentence, not only by the structure of the sentence, but by the referential nature of the sentence's key words. Other examples of sentences that do not really convey meanings are presented in Sentences (8-11):

- (8) He is smart.
- (9) It is brownish in colour.
- (10) They love singing.
- (11) We hate each other.

Sentences (8–11) are simple sentences with pronoun subjects. They are, however, strings of words meaningful 'only in certain contexts'. Context is defined by the relationship between a word or a linguistic form and their situation (Berry 1977:46). Sentence (8) will make sense in the context of the question, 'Is Wilfred smart?' This illustration confirms context as a connection or relationship that holds between language use and situation. Context also has a role to play in determining the meaningfulness of an expression. The latter sheds light on the limitation of the definition of a sentence as a group of words that make a complete sense because it fails to incorporate in its definition, other possible occurrences of certain group of words though not expressed in sentence forms, still meet the criterion of 'making a complete sense'. A closer look at the conversation below shows certain English constructions; 'A bait'; 'The cook' and 'A snake' make meaning in their own rights:

Yomi: What did you use to catch the fish?

Tomi: A bait

Yomi: Who was the king's favourite?

Tomi: The Cook

Yomi: What bit the poor boy?

Tomi: A snake

From the dialogue, Tomi's responses; 'A bait', 'The cook' and 'A snake' though not expressed in sentence forms, can be both 'meaningful' and 'senseless.' On the one hand, Tomi's responses will be meaningful because as a dialogue and a form of communication, it is 'meaningful in its own rights'. On the other, Tomi's responses will be senseless because the responses show the different shortfalls portrayed by sentences of a conversation or dialogue; lack of the full sentence structure with little or no information though meaningful to the interlocutors. Apart from the meaningfulness and senselessness of a conversation or dialogue, there are some lexical (verbal) and non-lexical (non-verbal) 'senses' which re-affirm the interplay between meaningfulness and senselessness; thus, the sense of signs and symbols.

The Sense of Signs and Symbols

A sign is an interpretant opened to diverse interpretations and mostly, culturally-influenced. The point confirms a fact about signs; its *arbitrariness*. The arbitrariness of a sign shows a zero reference for example, between the spoken or written word, 'TRIANGLE' (*the signifier*) and what it stands for (*the signified*) (Saussure 1974:15). In other words, there is no connection or relationship between the word 'TRIANGLE' and its numerous representations in the real world. Thus, the word 'TRIANGLE' can be any three-sided object anywhere in the world as long as it makes sense to its users. As earlier remarked, not every expression that makes a complete sense is expressed in a sentence form. Non-verbal expressions such as traffic signs, symbols (emblem, batch etc.) as well as code (country code, street code etc.) also make a complete sense. Worth knowing, the non-verbal

expressions (traffic signs, symbols and codes) are actual messages which though culture-dependent, need not be represented in ordinary sentence form to convey meaning (Saeed 2006:5). Therefore, 'signs' may be both 'meaningful' and 'senseless'. The meaningfulness and senselessness of a sign are tied to its diverse cultural interpretations. For instance, an 'HANGER' used for clothes is triangular. But the shape of an 'HANGER' in another linguistic environment may not be considered, triangular given its 'CORK'. The point, notwithstanding, does not rule out the communicative nature of a sign (Lyons 1977:33). Let us consider other examples:

Road Signs and Colour Interpretations

SIGNS	ACTUAL MESSAGES
Red light On	Halt/ Do not move
Amber On	Get ready to move
Green light On	Move now

COLOURS	ACTUAL MESSAGES
Black	Mourning
Red	Danger
Blue	Love
White	Peace
Green	Productivity

Following from the table is this; first, the illustrated road signs show its meaningfulness to road users (drivers and pedestrians) and second, the illustrated colour interpretations show the extent/degree of its meaningfulness/senselessness to and among diverse speech communities. For instance, the colour for mourning in some cultures is meaningfully interpreted as 'black' but such colour is considered senseless in another linguistic environment where 'white' is generally believed to be the colour for mourning (Saeed 2006:5). By implication, what makes meaning in one culture does not in another. Also to be considered is the sense of affixation.

The Sense of Affixation

Both prefixes and suffixes (affixes) can be considered appendages to the root or the base of a word. This is because not all prefixes and suffixes make sense unless they appear before a root/base (prefix) or after a root/base word (suffix) (Yule 2007:69). For example, in the word *irresponsible*, 'ir' is the prefix which is senseless i.e., it is significant for meaning: the 'ir' prefix is a negative prefix. Other prefixes in the same category are 'im' in *impossible*; 'il' in *illegal* and so on. Remarkably, some prefixes can make sense either singly or collectively. The prefix, *ultra* for example, has a separate meaning. The prefix means, *'person holding extreme opinions'*. The same can co-occur with words like 'sound', 'violet' to convey entirely another meaning. Instances of *'ultrasound'* (of a medical examination) and *'ultraviolet'* (of a form of radiation) respectively and more abound. There is also the possibility of a meaningful co-occurrence of two different suffixes. For instance, the two different suffixes '-ful' and '-ness' when combined together, will produce 'fulness'. Interestingly, the new combination, 'fulness', takes up the meaning, 'totality'. Thus, while the fusion of the English suffixes, 'ful+ness', makes sense collectively, the same remains meaningless or senseless individually. Worth knowing, some suffixes can make sense individually. Suffixes like *'-able'* meaning, *having the ability to do something* and *'-less'* meaning, *without* will make sense individually/singly (Collins English Dictionary, 2010). In addition, the two suffixes *'-able'* and *'-less'* can co-occur with some base/root words like *'commend(able)'* and *'worth(less)'* respectively to convey a slightly newer meaning. The paper further considers the sense of alphabets.

The Sense of Alphabets

Acronyms and abbreviations, as set of letters, are tools for effective communication. Though used during a communication process to convey intended meaning and ideas, the *duo* are not usually expressed in sentence forms. However, some abbreviations are capable of performing the role of qualifiers i.e., as adjectives. For example, the abbreviated form of 'MISTER' ('MR') is a title playing the role of an adjective when used with names of people like, MR. SMITH which tells more about 'SMITH'. Thus, both abbreviations and acronyms are limited in scope. They are limited because they stand for what they are designated to represent. Consider the following abbreviations and acronyms:

UNO – United Nations Organization

NUT – Nigerian Union of Teachers

BBC –British Broadcasting Corporation

WHO- World Health Organization

ASUU – Academic Staff Union of Universities

VOA- Voice of America

SON – Standards Organization of Nigeria

IRA- Individual Retirement Account

The abbreviations (IRA, UNO and ASUU) and acronyms (SON, WHO and NUT) are what Berry called the substances and forms of the English language. While the substances are the raw materials of language (letters) used in writing or speaking, the forms are the arrangements of the substances (letters) into recognizable and meaningful patterns (Berry1977:37). The major difference between abbreviations and acronyms is this; while abbreviations are letter-alphabets meaningfully fused together, acronyms are word letter-alphabets meaningfully fused together. Thus, while all acronyms are ambiguous with evidence of dictionary entry/meaning, not all abbreviations are ambiguous. For instance while the English abbreviation, 'SAN' given its linguistic setting stands for 'Senior Advocate of Nigeria' and nothing more, another abbreviation, 'IRA' can mean any of the following: 'Individual Retirement Account'; 'Irish Republican Army' or 'International Reading Association.' Unlike abbreviations that are not grossly ambiguous, acronyms exhibit ambiguity in its entirety given its nature. Therefore, the acronym, 'SON' apart from the dictionary meaning of a 'male offspring', can also mean, 'Standards Organization of Nigeria'. The logical connection that exists between abbreviations and acronyms confirms the meaningful relationship that holds among the various words(substances and forms) that make up the English sentence or expression (verbal/non-verbal). Little wonder every expression, verbal or non-verbal, takes into consideration the 'physical-social context' of its environment which to Kreidler, are the trio of 'circumstances', 'the individuals' and 'places of occurrence' (Kreidler1998:27). In other words, every linguistic expression must take into consideration, the relationship among people, places and circumstances of its production. What are the results or findings?

Conclusion

Having considered the three different senses of signs/symbols, affixation and alphabet, the paper discovered that three factors were tied to the meaningfulness and senselessness of an expression. First, the factor of empirical verification that considered the truthfulness or falsity of a sentence or proposition from the perspective of reference and sense. By implication, the different word combinations in a sentence or proposition must be definable or referentially determined to convey meaning otherwise, senseless. Second, the factor of meaningful alignment of some English letter-alphabets which; conferred meaningful letter-alphabets and meaningful word letter-alphabets on *abbreviations and acronyms* respectively. Thus, the abbreviations (IRA, ASUU) and acronyms (SON, WHO) would make sense to members of a language community who were familiar with what Berry called the substances and forms of the English alphabet. Third, the factor of affixation which identified the meaningfulness/senselessness of some prefixes/suffixes either singly or collectively. On

the affix; 'prefix', it was discovered that the prefix 'Ultra' would make sense either singly (Ultra) or collectively (Ultraviolet). Also on the affix; 'suffix', it was discovered that not all suffixes are grossly senseless. The suffix, '-able' as discovered in the paper made sense on its own. The same point, showcased the two suffixes, '-ful' and '-ness' which though senseless as discussed in the paper, could also be meaningful thus; on the one hand, when the two meaningfully occur together with certain root/base word like 'faith' as explicated in the paper and on the other, when the two suffixes; '-ful' and '-ness' are annexed i.e., fused together (without a root/base word) to produce 'fulness' which takes up a newer meaning, 'totality'.

Also discovered on the meaningfulness and senselessness of some verbal expressions is the English sentence, 'It is hot' which though senseless, would be meaningful based on context (Kreidler 1998:68). The senselessness of the sentence, 'It is hot,' as explicated in the paper showed that there is no referential connection between 'It' and 'is hot'. The paper therefore concluded by re-affirming the point that while it is true that every statement be opened to empirical verification, some verbal (lexical) and non-verbal (non-lexical) English expressions though not necessarily expressed in sentences or statements, could likewise express the idea of empirical verification given their meaningfulness in different linguistic environments.

The point as enunciated in the paper, revealed the possibility of some colours (instance of the sense of signs and symbols) attract diverse interpretations based on their meaningfulness/senselessness to different language users. This is the idea of the 'meaningfulness of a senseless expression' and the 'senselessness of a meaningful expression' considered in the paper.

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STUDENTS, LOGICAL THINKING AND TEACHING EFFICIENCY: A MOROCCAN CASE

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Abstract

This paper argues that instruction within the classroom generally helps students develop mathematical thinking skills. The research was conducted in a North African context, where students often face the challenge of thinking, learning and talking in different languages. The educational backgrounds of the students were diverse, with some students coming from a French educational background, while others came from schools that use Arabic as the medium of instruction. The paper includes a literature review in addition to a test that was administered to students before and after a semester of learning mathematics in class.

Key Words: College mathematics education, Logic, Teaching efficiency, Morocco

Introduction

The literature is rather united in terms of the current state of mathematics education, the causes for the current state of affairs, and the steps needed to overcome the problems it faces. The typology used to outline the literature focuses on the *state* of Mathematics Education, the *causes* identified in the literature as probable factors in the current problematic state of affairs, and the *solutions* suggested to address the problem. In its summation, this literature review will place our current efforts in the context of the literature. The literature on College-level Mathematics Assessment was sampled as part of our effort to evaluate our teaching process. Using standard academic journal databases, such as ERIC and JSTOR, we were able to extract a sample of the literature. As can be expected, the literature is dominated by quantitative approaches (Frise, 1996; Hoyt & Perera, 2001; Ratcliff & Yaeger, 1994; Stage & Kloosterman, 1995), although there were some papers that utilized qualitative approaches (Luk, 2005; Jordan and Haines, 2003; Cerrito, 1996). There were few controversies and disputes in the literature, suggesting that teaching mathematics has become, to some extent, a regular profession. Controversy, such as it was, is limited to the students' assessments of their instructors (Hoyt & Perera, 2001). In most other topics, there was widespread consensus concerning what ails mathematics instruction, not only in the United States, but also in Hong Kong and other societies. We were not able to find Arabic language sources on mathematics teaching evaluations, and we apologize to any colleagues in Morocco and the rest of the Arab world who may have conducted such research for failing to include their work.

The State of Mathematics Education

Mathematics education is not experiencing its best time. A 1995 study by Steve Bauman and Bill Martin at the University of Wisconsin at Madison, found that many students were incapable of reading a simple graph. They report that even engineering students were not able to identify some of the simple concepts they tested. Bauman and Martin also detail problems in knowledge retention in students who are not mathematics majors (Bauman & Martin, 1995). Their findings are reiterated by Hing Sun Luk, a professor of Mathematics at the Chinese University of Hong Kong, in an essay addressing the difficulties facing Mathematics education in Hong Kong. In his 2005 article, Luk argues that even elite students face significant problems learning and understanding mathematics. Luk locates the source of problems with Mathematics education in the heuristic gap between the methods used to teach mathematics in High Schools and Universities. The professor is also clear that much of the blame lies on "epsilon-delta gap between calculus and analysis." There is also some discussions of the "psychology" of learning mathematics, which is also a position taken by other authors (Luk, 2005). Like Bauman, Martin and Luk, Patria Cerrito argues that there is widespread ignorance of basic mathematics (1996). The extent of the problem is so widely acknowledged that a new term, QL (Quantitative Literacy) has appeared to describe the problem (Jordan & Haines, 2003). Quantitative illiteracy and other forms of innumeracy can hamper development efforts and stymie citizens in both the developed and the developing worlds in their efforts to make appropriate decisions as consumers, voters and workers.

The lack of preparation for and interest in Mathematics by the students is identified as a major obstacle for mathematics instruction by Drs. Chaatit and Marzouk in all three branches of Al Akhawayn University Ifrane. Using a sample drawn from the same population used in this study, the team finds that AUI students are generally not prepared to take classes, unwilling to apply themselves to the study of mathematics, and generally unable to perform properly in mathematics (Chaatit & Marzouk, 2007). In general, the problem of mathematics education is now identified as an education priority in the North (Sons, 1992). But as Luk's work suggests, the presence of the problem in Hong Kong suggests that this is a universal problem that is transnational and may not be limited to the older parts of the developed world and the global South.

The Causes of Quantitative Illiteracy

Luk's focus on psychological factors is upheld by studies using quantitative methods. One such study by Frances K. Stage and Peter Kloosterman, professors at the Indiana University at Bloomington, uses a sample of 236 students to test whether their beliefs about mathematics, their prior preparation and their gender influences their performance on remedial mathematics courses. For the male students, prior preparation had greater influence than it did for female students, but for both genders, the greatest predictors of mathematical performance were the student's beliefs about mathematics. Kloosterman and Stage define "mathematical beliefs" as 1) *confidence* in being able to solve difficult problems; 2) *steps* versus concepts in solving word problems; 3) *word problems* being an essential element of mathematics; 4) that *understanding* mathematics involves memorizing formulae; 5) that *effort* can improve one's mathematical performance (Stage & Kloosterman, 1995, pp. 296-297). The authors find that the student's mathematical belief set is the best predictor of their performance in the classroom.

Flowing along the same lines of reasoning, Donald Hoyt and Subashan Perera, researchers at the IDEA Center of Kansas State University, find that student motivation is the best predictor of their performance in quantitatively-oriented courses. Using a study of at least 1500 students, the authors gathered data from 50 classes from each of their "three levels of quantitative involvement: none, some and much" (Hoyt & Perera, 2001, p. 3). Interestingly, they also found that students tended to retaliate against social and behavioral sciences classes that had quantitative content by assigning their instructors lower levels of teaching effectiveness. The students' lack of motivation was working against them and ultimately also against their instructors. They defined motivation as a synthetic composite variable based on the students' responses to being asked to rate their response on a five-point response scale from "definitely false" to "definitely true." The students had to respond to the following statements:

I had a strong desire to take this course.

I really wanted to take this course from this instructor.

I really wanted to take this course regardless who taught it.

A fourth item was indirectly related: I worked harder on this course than on most courses I have taken. (Hoyt & Perera, 2001, p. 4)

Data from the College of the Canyons, a California Community College, suggest that students are often aware of their own shortcomings in Mathematics. In an August 1996 study, Dan Frise, correlates the students' self-assessment of their own mathematical skills with their scores on the intake test used by the College of the Canyons. The correlation appears strong enough to suggest that students may have a realistic picture of their ability, but that testing should proceed to safeguard their proper placement in classes that address their ability levels (Frise, 1996). This suggests that assessment testing is seen as one of the best methods with which to gain a handle on possible solutions to the problem of diminished QL.

Solutions to Quantitative Illiteracy

While the solutions are labeled with different titles and names, they do share one thing in common: the proper integration of mathematics into the wider curriculum without expecting the mathematics programs alone to correct for the problem of innumeracy. One of the largest studies in

our sample focused on measuring improvement among students and the coursework they pursued that helped them improve their mathematical performance. James Ratcliff and Patricia Yaeger, from the Pennsylvania State University's Center for the Study of Higher Education, conducted a study using data from a US institution of higher learning dubbed "Eastern College" – a pseudonym designed to protect the institution's privacy. They used transcripts and test scores from about one thousand students and examined about 900 courses. The focus of the study was about 100 students and 252 courses. This sub-sample included students with high verbal scores and low quantitative scores in the SAT and GRE standardized examinations. Ratcliff and Yaeger use the SAT as the baseline to include students in this special sub-population and then measure the students' performance in the GRE four years later. They were particularly interested in course sequences and clusters that improve the students' mathematical performance. The course cluster that showed gains in regular mathematics and quantitative comparison included courses in Mathematics, Accounting, Finance, Chemistry, Computer Science, as well as Political Science and Art History. Two other course clusters showed improvements in the students' mathematical skills, including one cluster based on psychology courses and another which was business oriented. Ratcliff and Yaeger also note that there was a cluster favored by students who wish to avoid all quantitative work. These students did not see any improvements in their mathematical skills during their four year college sojourn. Ratcliff and Yaeger conclude by suggesting that some forms of course work lead to improvements in the students' mathematical skills (Ratcliff & Yaeger, 1994).

While Ratcliff and Yaeger look at curriculum clusters, Patricia Cerrito, a professor of Mathematics at the University of Louisville, argues for the integration of mathematics and quantitative reasoning across the curriculum. She advocates an approach similar to the "writing across the curriculum" method used against poor English language skills among college students. In a short essay, she points out how mathematical concepts can be integrated into history and political sciences courses in a manner that teaches the students some basic concepts while retaining their political and historical relevance and content (Cerrito, 1996). Cerrito's positions are supported in an advocacy essay by Joy Jordan and Beth Haines of Lawrence University. Quoting an earlier work by Reed and Evans (1987), Haines and Jordan argue that mathematics needs to return to using the heuristics of analogy. They find that statistics is particularly helpful in improving student's quantitative skills. They also advocate the policies adopted by four institutions of Higher Learning in the United States that seek to integrate quantitative methods into the traditionally less quantitative fields like art, public policy and the social sciences (Jordan & Haines, 2003).

The sole apparent deviation from standard lines in the literature sample concerning solutions comes from Luk, who emphasizes the most "traditional" and at the same time "radical" approaches to mathematics. Perhaps his teaching philosophy can be best described as a "get tough but real" approach. He calls for bringing back the classics like Euclid and Hilbert. He calls for faculty to accept students as they are: clumsy, confused, ignorant and sometimes annoying. Luk challenges mathematics instructors to begin talking to the students in a manner they understand and warns against attempting to select the "best" of the students at the expense of average and weak students.

"While we hear publicity about attracting and accepting the best students, we also hear ready laments about the less able students. What dissonance! It may be that our own mission lies in starting from where the students are and leading them as far as they can go. Who knows at the school-university transition how far that will be for any one for them?" (Luk, 2005, p. 172).

If one examines Luk's arguments and compares them to the consensus mathematics- within-a-curriculum arguments, it is easy to see that the two approaches are complimentary. Instructors may need to return to the basics and spend the time and the energy needed to guide the weaker students. The curriculum may be the factor that enables them to apply the abstractions of mathematics into the concrete realities they study within their majors.

Our Study and the Literature

Our current efforts are an attempt to find out how our students are performing in some basic mathematical tasks. There are other studies that did so also, such as the effort by Bauman and Martin during the 1990s. There are some differences in extent, sample size and the testing instruments. There are issues that must be addressed in the next phase of studies: demographics, gender, motivation, beliefs about mathematics, and prior preparation. Not all of these issues are currently

addressed in our sample, but it may be possible to duplicate, in miniature, the Ratcliff and Yaeger study, by using the students' quantitative results from their admissions test and then administering a second quantitative exam before the students graduate in the future.

As it stands, however, we are seeking to find out factors like retention, memorization versus learning, and teaching effectiveness. It is clear that these issues continue to haunt mathematics not only in the Arab world but also in the United States and the Far East. The focus, we believe, should be on the effectiveness of mathematical instruction. The primary measure for this would be whether and how students apply mathematical thinking to very basic problems. To that end, we turned to work that focuses on the absorption of logical patterns of thought by students; we found that an old 1973 contribution by Thomas C. O'Brien, then professor of Mathematics at Southern Illinois University, came closest to measuring thinking and logical patterns and whether students become more mathematical or logical in their thinking as a result of instruction. O'Brien's approach offered us several advantages. First, it evaluates the effectiveness of the instruction rather than the prior preparation of the students. Second, the approach allows us to test for the skills that students should carry with them from the mathematics classroom to the rest of life. Third, the method is practical and easier to apply than the alternatives discussed earlier. To update it, we added a battery of standard demographic variables, and given linguistic diversity in Morocco, we included language variables.

Methodology

A paper and pencil test was filled out by the students both at the start and at the end of the semester. The students' name was replaced by a letter code in both tests, to enable comparison between first and second administration of the test and to guarantee anonymity for the student. The first test contained two parts: demographics and language, and logic assessment. The second test only contained the logic assessment. The demographics and language component consisted of 11 questions about the students' social background (including parents' level of education), as well as about age and gender, and languages spoken and used in class. More specifically, the following questions were asked:

1. Age: _____
2. Gender: _____ (Male or Female)
3. Language(s) Spoken at home: _____
4. Baccalaureate type (Science, Literature, Economics etc.): _____
5. High School Attended with type (Moroccan Public, Moroccan Private, French, European, or American pattern): _____
6. Language used to discuss mathematics with classmates: _____
7. Language used to think about mathematics: _____
8. Language used to take notes in this class: _____
9. Father's educational attainment, if known:
 - a. Less than High School
 - b. High School degree (Bacc.)
 - c. Bachelor's degree (license)
 - d. Master's degree or doctorate
10. Mother's educational attainment, if known:
 - e. Less than High School
 - f. High School degree (Bacc.)
 - g. Bachelor's degree (license)
 - h. Master's degree or doctorate
11. In general, I consider my family to be:
 - a. Poor
 - b. Working Class
 - c. Middle Class
 - d. Well-off

The logic assessment part consisted of 48 questions as in O'Brien's work. While O'Brien had two instruments one causal in context and another class inclusion in context, we choose to have only one type of instrument because of the size of our sample. The type of instrument chosen was class

inclusion. The items in the test were based on the following three sentences:

1. If the scorpion is black, then it is fast.
2. If the cat is small, then it is grey.
3. If the eggplant is big, then it is bitter.

These three sentences were given in each of four inference patterns (modus ponens MP, contrapositive CP, inverse IV and converse CV) and in each of the four modes $p \Rightarrow q$, $\bar{p} \Rightarrow q$, $p \Rightarrow \bar{q}$, and $\bar{p} \Rightarrow \bar{q}$. So the logic test consisted of 48 items in total, which were given in random order according to each of the sentences. Two of the 26 initial students did not return for the post-test.

The test was administered during class. Students were given 40 minutes. Before the test, there was an introduction about the purpose of the test (including explanation about the demographics questions and about the meaning of the answers, in particular not enough clues). Anonymous treatment of the answers and results was stressed, as well as the fact that the results on the assessment would have no impact on the class grade. The sample consisted of 24 students in MTH1304 Discrete Mathematics for Engineers in Spring 2008. Students repeating the course or students who withdrew from the class in the course of the semester, were not included in the sample. MTH 1304 is an introduction to the fundamental ideas of discrete mathematics. Topics covered in this course include sets, logic, relations, recurrence relations, trees and graphs, partially ordered sets, lattices, Boolean algebras, algebraic structures. The aim of the course is to give the students a foundation for the development of more advanced mathematical concepts that are useful to computer science and computer engineering. Students are expected to achieve a balance among the computational skills, theory and applications of discrete mathematics.

This course has no pre-requisites. Most students taking it are freshman. MTH1304 is a required course for students majoring in Computer Science (CS) or in General Engineering (GE), and can be taken as elective by students majoring in Engineering and Management Science (EMS). As most students taking this class are freshman and as quite a lot of students switch between the majors CS, GE and EMS afterwards, it was decided not to consider the students' major as a variable.

The book used in MTH1304 was Discrete Mathematical Structures, B. Kolman, R.C. Busby and S.C. Ross, 5th edition. The following chapters were covered: Fundamentals, Logic, Counting, Relations and digraphs, Functions, Order relations and structures, trees, topics in graph theory. The chapter on logic is introductory. One section of this chapter deals with conditional statements or implications, including the contrapositive $\sim q \Rightarrow \sim p$ of an implication $p \Rightarrow q$. The fact that an implication and its contrapositive are logically equivalent is established and used throughout the book. The class has 3 credits and meets three hours a week. Tutoring by an undergraduate student was available throughout the semester. Since attendance at the tutorial sessions was not required and very low, it was not considered as a variable.

Findings

Taking a class appears to improve the overall performance of students. As shown by Tables 1 and 2 below. The sole exception appears to be converse pattern of inference in the $p \Rightarrow q$ mode, where the average score went down by 0.1.. These results are comparable to those found in the work being updated.

Table 1: Percentage Responding Correctly According to Mathematical Logic.

	Pretest					Posttest				
	$p \Rightarrow q$	$\bar{p} \Rightarrow q$	$p \Rightarrow \bar{q}$	$\bar{p} \Rightarrow \bar{q}$	Comp.	$p \Rightarrow q$	$\bar{p} \Rightarrow q$	$p \Rightarrow \bar{q}$	$\bar{p} \Rightarrow \bar{q}$	Comp.
MP	87.2	85	84.7	78.2	83.8	87.2	87.2	88.5	83.3	86.6
CP	56.4	32	61.5	41	47.7	61.5	44.8	65.1	53.8	56.3
IV	41	33.4	42.3	34.6	37.8	56.4	46.1	51.2	47.4	50.3
CV	52.6	39.7	50	44.9	46.8	52.5	46.4	52.5	48.7	50.0
Comp.	59.3	47.1	59.3	48.9	54.0	61.8	55.4	64.2	57.7	60.8

Table 2: Percentage Improvement

	Improvement				
	$p \Rightarrow q$	$\bar{p} \Rightarrow q$	$p \Rightarrow \bar{q}$	$\bar{p} \Rightarrow \bar{q}$	Comp.
MP	0	2.2	3.8	5.1	2.8
CP	5.1	12.8	3.6	12.8	8.6
IV	15.4	12.7	8.9	12.8	12.5
CV	-0.1	6.7	2.5	3.8	3.2
Comp.	2.5	8.3	4.9	8.8	6.8

We note that the largest improvement was in the patterns IV and CP, and in the modes $\bar{p} \Rightarrow \bar{q}$ and $\bar{p} \Rightarrow q$. When we look at the individual scores, we see that 77% of the students improved their average grade between pre- and posttest. We also note that, in comparison with MP, CP scores were low. We also notice, that IV is easier than CV. However, this difference seems to disappear in the posttest. This seems to point in the direction of other uses of logic. One of the conclusions of O'Brien is that consistent use of 'Child's Logic' persists in college students. We wanted to find out if this is also the case for our students. Since we have both pre- and posttest results for each student, we were also able to investigate whether there are any changes in interpretations of $p \Rightarrow q$ used.

For the terms 'consistent use' of an interpretation of $p \Rightarrow q$ and 'Child's Logic', we use the same definitions as O'Brien. A student is said to make consistent use of an interpretation in an inference pattern if 8 or more of the 12 items on that inference pattern are answered according to that interpretation. The term 'Child's Logic' refers to the interpretation of $p \Rightarrow q$ as $p \Leftrightarrow q$; in this case, $p \Rightarrow q$ is understood as p and q are either both false or both true. We indicate the correct mathematical interpretation of $p \Rightarrow q$ as 'Math Logic'. Finally, we also look at consistent use of NEC (not enough clues) as an answer for CP Table 3 below summarizes the percentages of students who make consistent use of one of the interpretations 'Math Logic', 'Child's Logic' or NEC for the different inference patterns MP, CP, CV, IV.

Table 3: Percentage Using Consistent (8 out of 12) Patterns of Inference Getting the Correct Answer.

	MP	CP	CV	IV
Pretest				
Math Logic	87.5	20.8	29.2	45.8
Child's Logic	NA	NA	37.5	29.2
NEC	0	16.7	NA	NA
Posttest				
Math Logic	91.7	45.8	50	45.8
Child's Logic	NA	NA	29.2	29.2
NEC	0	12.5	NA	NA

We note an improvement in the consistent use of 'Math Logic' in CP and CV, while there is no improvement for IV. The percentage of students making consistent use of 'Child's Logic' in IV also remains the same.

We also looked at how many students make overall consistent use of one of the interpretations 'Math Logic', 'Child's Logic' or NEC; i.e. consistent use in each of the inference patterns MP, CP, CV and IV. In contrast to O'Brien, consistent use of 'Child's Logic' does not occur that frequently: only 8.3% of the students make consistent use of 'Child's Logic', in pretest as well as in posttest. In fact the same students who consistently use 'Child's Logic' in pretest, still use 'Child's Logic' consistently in posttest. We do notice an increase in the consistent use of 'Math Logic': while in the pretest only 8.3% of the students make consistent use of 'Math Logic', the percentage of students consistently using 'Math Logic' in the posttest is 20.8.

This still leaves a high number of students (83% in pre- and 71% in posttest) whose logical thinking patterns are yet to be revealed. Therefore we checked for some other interpretations of $p \Rightarrow q$ that have also been investigated by O'Brien. "1537," where students use "Math Logic" for MP and IV, NEC for CP and "Child's Logic" for CV. "1237," where students use "Math Logic" for MP, CP and IV, and "Child's Logic" for CV. "1534," where students use "Math Logic" for MP, CV and IV, and NEC for MP. "1564," where students use "Math Logic" for MP and CV, NEC for MP and "Child's Logic" for IV.

Table 4: Percentage Using a Key Consistently.

Key	Pretest	Posttest
Math Logic	8.3%	20.8%
Child's Logic	8.3%	8.3%
1537	4.2%	0%
1237	4.2%	4.2%
1534	4.2%	8.3%
1564	8.3%	4.2%

Demographic Factors

There were three age groups in the sample, 18, 19, and 20 year olds. The oldest category included three students whose performance improved from the pretest to the posttest. The 19 year olds improved least, with only 6 out of 10 improving their scores. The 18 year old students did better with 9 out of 10 improving their overall performance. One student choose not to mark his or her age. Consequently, it is likely that age is not a significant factor in the performance of the students. With regard to gender, the sample was nearly evenly split between men and women. Among the males 11 out 12 improved their performance. In addition 8 out 12 women improved their performance. There may be some differences due to approaches to studying between the two genders. The difference could possibly be related to initial approaches to the course. Classroom experience suggests that more of the women students approach studies more seriously initially, so the room for improvement may be narrower as a result. The variation in numbers suggests that there is a need for further study of this difference.

In terms of languages spoken at home, which is an important issue for an English-speaking university in non-English speaking country, 11 out of the 13 students whose households use Arabic exclusively registered an improvement in their performance; two of these students saw their performance regress. The remaining 11 students live in families that use Amazight, English, or French either solely or in combination with each other or with Arabic. Eight of the non-solely Arabic speaking students saw their performance improve. Two regressed and one student remained stagnant. All the students who stagnated or regressed were raised in multiple language households. Concerning the language used to think about mathematics, those using Arabic to think, improved their performance in 4 out of 7 cases. Those using English to think about mathematics improved their performance in 3 out of 4 cases. Those using French in combination with Arabic saw their performance improve in 1 out of 2 cases. The sole student using French with English to think about mathematics saw his or her performance regress. The remaining students used French (6), English (1) or Amazight (1) or a combination to think about mathematics, and they all registered improvement. This suggests that the issue of linguistic diversity needs further study.

In terms of class, the students considered themselves to be middle class by an overwhelming margin (17 out of 26 initial students). Only one student considered his family to be poor. Three considered their families to be working class, and five claimed to be well off. Of the 17 middle class students, 13 improved their performance in the posttest. The single student of poor background improved his or her performance in the post-test as well. Among the three students who considered themselves to be of working class background, two improved their performance while one regressed. It was only among the five students who considered themselves well off that the pattern of overall improvement came into question; two of these students saw their performance regress while the remaining three improved their results. We believe that the difference between middle class, working class, and poor students in one hand and well-off students on the other suggests that there is a warrant for further study of how class and wealth affect the study of mathematics.

Conclusion

Different patterns of logic are used by students. Further research in logic interpretations used by students could help in improving the teaching of logic. Only a small fraction of the students used "Child's Logic" consistently. There is a significant improvement in the consistent use of "Math Logic" by the students. This study also strongly suggests that mathematics instruction leads to results at least in some modes and patterns of inference. To that end, we find Luk's call for working with the students as they are correct. While improvement will never be universal, attempts to spread mathematics across the curriculum while reducing the mathematics requirements in the common core from three semester courses, to two and then one in some schools will come at the expense of improvements in the critical thinking and mathematical logic skills of students. Should a mathematics-across-the-curriculum approach be combined with a vigorous application of teaching mathematical basics, the results are likely to be better. We find that the problems facing mathematics are global. It is not simply a matter of preparation, because other school systems are facing the same challenges despite having a very solid foundation in K-12 mathematics education.

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A FEDERATION IN DISARRAY: AN INTERROGATION OF NATIONAL INTEGRATION AND SECURITY CHALLENGES OF NIGERIA'S FOURTH REPUBLIC

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Abstract

The Fourth Republic which commenced in 1999 with Olusegun Obasanjo's administration up till the incumbent Goodluck Jonathan's, no doubt has witnessed a plethora of cataclysmic social tornadoes which carried the capacity and potential to precipitate disintegration. A federal state is one with a division of power between general and regional governments where each is within its sphere, independent and coordinates (Wheare, 1963). The subversion of this intergovernmental arrangement reached its crescendo in the Fourth Republic with brazen impunity by the political class. The unworkability of this system of government has evoked and is still precipitating insecurity in the nature of the unrest in the Niger-Delta, kidnapping, Boko Haram, issues of marginalization, competitive federalism that is anchored on lopsided fiscal federalism among others. Rather than reversing this trend of "unfederalism", politicians have only succeeded in coming up with mantra and propaganda to project semblance of a smooth union. Nigerian federation can therefore be called a union without unity. This paper therefore is an attempt to lay bare the grey areas of our federalism which are at variance with global practice of the system. The study also seeks to examine the pattern and trajectory of unrest that are fall outs of this unfederal character of the Nigerian state.

Keywords: Insecurity, Federalism, Nigeria and Fourth Republic

Introduction

Federalism as a system of government has always been adopted as a way of ensuring peaceful coexistence in a heterogeneous society like Nigeria. Being federal implies having a system of government in which the individual states of a country have control over their own affairs, but are controlled by a central government for national decisions (Olayiwola, 2012). Nigeria has tried her hands on both the presidential-type and the parliamentary - type of federalism. Nigeria, a dis-aggregative federal state has witnessed a number of challenging security issues that had tended to precipitate breakup of the entity. The most pronounced among these was the Nigerian Civil War which raged between 1967 and 1970. The dust raised by the war is yet to settle, particularly with the recent statement of Chinua Achebe with regard to the deleterious Biafran war. The January 2012 fuel subsidy crisis in the country, where the government unilaterally removed the subsidy of fuel which led to serious protest that was coordinated by the coalition of the civil society groups, Nigerian Labour Congress and well-meaning Nigerians who came out enmasse to stand against a most anti-people and obnoxious policy. The protest almost led to revolution if not that the Nigerian state coercively brought it to an abrupt end. The concern of this paper is to beam its search light at the operation of federalism and the dis-integration that stares the nation in the face in Nigeria's Fourth Republic which commenced in May 29, 1999. The forcible amalgamation of Nigeria with inequality in size and natural resource endowment can be adduced as the prime reason for some of these challenges.

The years of military rule in Nigeria have also undermined the practice of federalism in Nigeria. Some scholars are of the opinion that federalism died in Nigeria when the coup of January 15, 1966 took place. With the mindset that military rule was the bane of Nigerian development, the reverse of this came to bold relief with the return of the civilians to the political radar. "When the world became hostile to all forms of military rule, our boys returned to the barracks leaving the civilians to take over the reins again, but things have not improved since they took over in 1999, the problem remains" (see The Nation, Aug.2012). The entire social firmament in Nigeria is characterized by inter- community/intra-community, interethnic and intra-ethnic, inter-religious and intra-religious strife (Ifeanacho and Nwagwu, 2009). The paper is sectioned into four parts, the introduction, conceptual clarification, a union without unity- a paradox of the Fourth republic and recommendation.

Conceptual clarification: Federalism

A federal state is a state with a written constitution which apportions the sovereign power between a central or “federal” legislature on the one hand, and a system of local legislatures on the other, in such a way that each is sovereign within its prescribed sphere (Olayiwola, 2012). Federalism according to K. C Wheare the father of federalism is the division of authority between general and regional government such that each is within its sphere coordinate and independent of each other (Wheare, 1963).

National Integration

This implies a collective effort to bring seemingly loosely-structured ethnic societies into the federation. It can also be seen as efforts at engendering centripetality within a federation. The integration crisis facing Nigeria is manifest in the minority issues, religious strife, ethnic politics, resource control, youth restiveness and the call for a sovereign national conference (Ifeanacho and Nwagwu, 2009).

A union without Unity- Paradox of the Nigeria’s fourth republic

After a long period of occupation of the political arena by the military, Nigeria is now on the path of transforming perpetuate democracy. Since independence several efforts at democracy have often met with brick wall either in the hands of the military or greedy politicians. Odeh noted that:

“The collapse of the past few democratic administrations came as a result of the weak foundations of democracy paving the way for military incursion into politics and governance. The demise of the First Republic in 1966 marked the beginning of 'soldier go, soldier come' syndrome which was detrimental to the process of democracy in Nigeria. Colonialism, ethnicity and religious bigotry have been identified as inhibiting factors in democratization in Nigeria (Nnoli, 1995), Other constraining factors identified by Ihonvbere (1997) include the failure of a workable federal system, the debate over resource control and corruption” (Odeh,nd)

Despite the fact that this paper’s focus is on the fourth republic, it will serve some purpose to do some flash back into where we are coming from as a guide to the sorry pass we have found ourselves. Since the parliamentary system of the first republic was abridged, several other endeavours at democratizing could not be sustained let alone integrating. Nigeria began its fourth republic on May 29, 1999. This saw Chief Olusegun Obasanjo of the Peoples Democratic Party (PDP) winning a general election. Abubakar Abdulsallam had headed a military government consequent upon the untimely death of General Sanni Abacha in 1998. The Yoruba of the South-West Nigeria felt cheated and shortchanged when Chief M.K.O Abiola of the Social Democratic Party (SDP)’s free and fair election was annulled by General Babangida’s administration in 1993. In view of the cancelation, a nationwide protest was embarked upon by the Yoruba people especial in the Yoruba states. In order to pacify and compensate the Yoruba, the two prominent political parties in the 1999 general election fielded two Yoruba men in Chief Olusegun Obasanjo (PDP) and Chief Olu Falae (Alliance for Democracy). By 2003, the Hausa/Fulani who have had more shot at the presidency than other ethnic groups wanted it again. As a result of the afore stated narration, Nigeria has sat on the edge of the precipice precariously with no solution at sight. This ugly situation has given rise to various challenges which this section seeks to appraise. These are:

Political Violence

Violence according to Anifowoshe is a universal phenomenon (Anifowoshe, 1982:1). Alanamu (2005), further clarified it by arguing that violence is "the expression of hostility and rage through physical force directed against persons or property". From this scholar’s postulation, it can therefore be inferred that anywhere, collective decision of a people is being taken, there is bound to be violence. Political violence has remained one of the banes of the Nigerian state. Frustration –aggression theory can simply be used to explain this away. The central premise of the theory holds that: aggression is always the result of frustration (Anifowoshe, 1982:6). That the component units of the Nigerian federation are replete with frustrated minorities is stating the obvious. These frustrations have always precipitated the various violence that has always resulted in the orgy of violence that have been witnessed for some time. Political violence has taken its toll on the Nigerian state. Political killings

almost became one of the features of the fourth republic. In this republic alone, Chief Bola Ige, Engr. Funsho Williams, Chief Harry Marshal were brutally murdered. According to Erinoshio "virtually all those responsible for politically motivated murders in the past fifteen years have not been brought to book" (see The Nation, Aug.22, 2012). All of these have tended to weaken our democracy and have resulted in making our democracy a fragile one. Well-meaning politicians who can move Nigeria ahead are afraid of joining the fray because of the morbid fear of being killed, hence the political terrain has been turned into a fierce battle ground and it is the "survival of the fittest". The negative influence of the political godfathers also contributed to making political violence an albatross to the fourth republic. Adedibu held saw in Ibadan and without him, any potential governor in the pace setter state will be strewn with thorns. Andy Uba called the shots in Anambra state. They operated in such a way that everything at their disposal is always mobilized during election to ensure victory for their candidate, failure to achieve that often end in violence of geometric proportion.

The latest of these crises was the fuel subsidy protest early 2012 when the federal government on 1st January decided to remove subsidy on fuel thereby causing astronomical increase in the price of fuel. Major cities in the country erupted in violence that neared revolution. The situation was not helped by the uprising in the Arab world. At a point, there had been call for the resignation of the president. Militancy in the Niger-Delta was another case of serious political violence against an insensitive nation. Agitation for resource control has been on for some time, particularly with the slashing of the derivation from 50% to 1% later to 13% but it was silenced by the military junta of Abacha with the killing in 1995 of the 8 Ogoni including the environmentalist and writer Ken Saro Wiwa. This shoddy treatment which negates the true practice of federalism which also did not sit well with the Niger-Deltans and they resorted to kidnapping of expatriates and other top shots of these multinationals who had caused enormous ecological damage to their environment without due compensation. If not for the amnesty Programme of the late Yar'Adua, the worst could have been seen.

Religious violence

This is yet another index of a fractious state on the fringe of collapse. Nigeria, a secular state has not being insulated from certain religiosity. One feels that being a secular state, space for religion should not always exist in most of our official forms and this should always be downplayed in most of our national engagements, because this sometimes unofficially counts in admissions, recruitment and bureaucracy despite the federal character principle. Aside the marginalization and peripheralisation that often result from it, wanton pogrom that it has caused has left much to be desired about the essence of religion as a means of social ordering in a human community. The introduction of the Sharia legal code in Zamfara state by the governor of the state started the religious issue in the fourth republic. Watchers of public affairs were afraid if the code will not be used on non-Muslims. According to Osaghae, a lot of devastating religious crises have erupted in Nigeria leading to loss of lives and properties in religious-volatile states like Kano and Kaduna (Osaghae, 1998). Ali (2004) quoted in Odeh posited that "different interest groups have at one time or the other employed or deployed religion as a political instrument for their mobilization. Most times politicians capitalized on religious crises to vent their pent up anger on the enemies and opponents, because naturally none of the holy books preached violence rather they encouraged peaceful coexistence. The extant Boko Haram which came with religious coloration, has shown that it has religious dimension to it, in that the number of churches that have been razed and worshippers killed are sufficient pointers to this fact. The December 25th killing in Madalla Catholic church was a case in point and the gruesome mother of Deeper Life worshippers in Okene, Kogi State shows the how hellish religious violence can get. This religiosity has not really robbed off on our body polity, in that virtually all ministers, senators, and governors belong to either of the two prominent religions which often preach honest dealings in all endeavors; however sleaze, monumental corruption and primitive embezzlement still holds way in government circles.

Ethnicity

Ethnicity is also at the root of the disintegration that is threatening the corporate existence of the Nigerian state. Nigeria, a country of more than 250 ethnic nationalities is a case study in ethnic strife. Three major ethnic groups can be identified in Nigeria-Yoruba, Hausa-Fulani and the Igbo. Others are categorized as minorities. The seed of ethnic differentiation had been planted right from the period of independence. The Action Croup (AG) dominated the West and led by Chief Obafemi Awolowo, the Northern People Congress (NPC) in the North was led by Sir Ahmadu Bello and the

National Council of Nigerians Citizens (NCNC) controlled the East and led by Dr. Nnamdi Azikiwe (Sklar, 1983). One fundamental change that has been brought about is that the nomenclature of political parties must not reflect the ethnic group floating it, aside this it must have national spread, its head office must be in the FCT and the executive must reflect national spread, despite this political parties still reflect certain regions and distinct ethnic domination. For example, the Action Congress of Nigeria (ACN) is seen as a Yoruba dominated party because its stronghold is in the South West of the Yoruba people. The All Progressive Grand Alliance (APGA) is of the Eastern origin because the state it controls are in this region and the .Congress of Progressive Change (CPC) of northern extraction.

Nigeria today as many states as it does because of the need to combat ethnic related problems. In a bid to weaken the strength of the Eastern region at recession, the regions were divided into states, from three regions in 1945 with the Richards constitution up till the present 36 states arrangement all in a bid to nip ethnicism in the bud, that much has not been achieved.

Resource Control

Issue of resource control is such a critical issue in Nigeria, such that it has assumed a more worrisome dimension in the fourth Republic. With globalization sub-national units of the Nigerian federation realized the importance and workability of the resource control principles. Agitation for the resources of each region has therefore become a thorny issue in Nigeria. The South-South that is believed to have been more endowed in terms of oil resource feels it should either take control its resource or secede. Argument of resource control is hinged on the thesis that, this will no doubt encouraged other regions to discover their various resources which they have not discovered yet. Therefore drums of resources control is more vibrant in the South-south of Nigeria because of the enormous crude oil that is deposited in their land. But what the Niger-Deltans cannot stand is the brazen despoliation of their environment by the multinational oil prospecting companies with the connivance of the Nigerian government. This has led to a series of unrest, so many lives have been claimed including the writer, social crusader and environmentalist, Ken Saro Wiwa who agitated for adequate compensation for the inhuman conditions being experienced by the creek dwellers. Isaac Adaka Boro also made his voice known in this regard, yet no tangible thing is in place to ameliorate the plight and suffering of these people. Even much touted Niger Delta Development Commission (NDDC) has not been able to assuage the suffering of the people. Amnesty program was instituted following incessant kidnapping of both expatriates and local oil workers by the government, yet it has not been *Uhuru* for the creek dwellers who recently had corrosive flood as visitors.

Conclusion and Recommendation

Nigeria is a state on the brink of disintegration, going by recent events across the nation. From the recent attempt by a section of the South-south to host a flag which signified secession, the ever constant conscientisation of their tribes men through discreet and gradual preparation for a state of Biafra, the recurring Boko Haram unrest with a pointer to the fragile nature of our national cohesion, up to the lip service being paid to the zoning program by the ruling People's Democratic Party (PDP). Federalism that is meant to put in place a cordial co-existence among the diverse nations within Nigerian federation has been subverted and its caricature is what we are practicing in Nigeria. Election was held in the United States of America, Mitt Romney the Presidential candidate of the Republican Party gallantly accepted the loss of the election in good faith and in the spirit of sportsmanship. The reverse will be the case in Nigeria. Since the process leading to the election had not been crisis free, the result of the election in the final analysis will be taken with a pinch of salt. Little wonder, it's always litigation after litigation consequent upon the conduct of election in Nigeria. For a crisis free society that will be able to achieve the vision 2020:20 as outline by the federal government certain measures must be seen and taken as article of faith. They are as follows:

- *The polity must be restructured in order to allow for popular political participation
- *True federalism must be practiced at all levels
- *Power must be devolved appropriately
- *The ongoing constitutional review must be carried to its logical conclusion.

* Issue of marginalization and power rotation are very germane and critical to the corporate survival of the Nigerian entity.

*Resource control issues must not be politicized

*The transformation mantra must be practicalised rather than the paper transformation that is being witnessed.

If all these points are taken into consideration, it is believed that to a large extent the hocus-pocus and the jiggery-pokery that has characterized governance in particular and the nation in general would be a thing of the past.

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FAMILIAL FACTORS, PERSONALITY TRAITS AND SELF-EFFICACY AS DETERMINANTS OF ENTREPRENEURIAL INTENTION AMONG VOCATIONAL BASED COLLEGE OF EDUCATION STUDENTS IN OYO STATE, NIGERIA

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Abstract

This study explored the influence of familial factors, personality traits and self-efficacy on entrepreneurial behavior among college of education students. A correlational research design was adopted for the study. The participants include 470 vocational based students in the two public Colleges of Education in Oyo state, Nigeria. Four research instruments were used to extract information from the participants. These include Entrepreneurial Intention Scale ($r = 0.71$), General Self-efficacy Scale ($r = 0.82$), Big Five Inventory (0.83), and Bio-data Information. Two research questions were raised and answered in the study at 0.05 level of significance. Using Pearson Product Correlation Moment and multiple regression model, the results revealed that the independent variables examined jointly accounted for 74% of the total variance in entrepreneurial intention. The result also indicated that Parents occupation ($t=2.45$), extraversion ($t=2.44$), agreeableness ($t=2.77$), conscientiousness ($t=3.30$), neuroticism ($t=-3.64$), openness ($t=23.66$), and self-efficacy ($t=3.99$) linearly contributed to the prediction of entrepreneurial intention whereas family income did not. The outcomes of the study were discussed and it was suggested that counselling practitioners should take care of these variables while handling issues relating to entrepreneurial intention among students.

Key words: *Entrepreneurial intention, Familial factors, Personality traits, Self-efficacy, Entrepreneur*

INTRODUCTION

One notable challenge confronting the developing nations of the world, especially Nigerian, is how to get their legion of youths gainfully employed. In Nigeria, to be specific, myriad of youths are graduating from higher institutions of learning every year without corresponding job opportunities for them. The consequence of this deficiency has always been associated with diverse forms of criminality, violence and abhorable social vices which youths are noted for. It is perhaps the attempt at solving these problems associated with unemployment that Nigerian government, aiming at job creation, modified school curriculum virtually at all levels of education and tailored it towards that which youths would be self-employed through entrepreneurial education. This policy direction is probably infused with a palpable sense of relief when observed that entrepreneurship has the possibility of providing a source of income when an economy lacks ability to offer enough jobs or other alternatives for generating wages or salaries, even when positive social value is in place (Kelly, Bosma & Amoros, 2010). Apart from this, it is believed that a career influenced by entrepreneurship has propensity to offering the individuals ample opportunities for enjoying independence, reap greater financial pay back and of an overall gain to the economy through a contribution to innovation, job enhancement and economic development (Ahmed, Nawaz, Ahmad, Shaukat, Usman, Rehman, & Ahmed, 2010). In brief, entrepreneurship is vital to national and regional economic development (Sandler-Smith, Hampson, Chaston & Badger, 2003).

Despite these attached dividends to entrepreneurship and the provision of entrepreneurship training in Nigerian tertiary institutions, numerous Nigerian youths are still found wobbling from place to place in search of better job without willingness to take entrepreneurship activities. This suggests that entrepreneurship engagement is not only a function of education but much more of intention. This is because intentions have the ability to predict individual's behavior particularly when the behavior is rare, hard to observe or involves unpredictable time lags (Krueger & Brazeal, 1994). Therefore, entrepreneurship intention has proven to be a primary predictor of entrepreneurial behavior (Reynolds, 1995). Specifically, Autio Keeley, Klofsten, Parker and Hay (2001) stressed that intentions explain about 30% of the variance in behavior. It therefore follows that entrepreneurship education may not actually propel people into entrepreneurship unless their intents are actually developed towards self-employment. It is in the light of this that interested researchers in the area of entrepreneurship have focused their studies on factors influencing entrepreneurial intention.

There are many definitions ascribed to the concept, "entrepreneurship", depending on the individual's field of study. For example, Kirzner (1979) defined entrepreneurship as the process of creating something new with value by devoting the necessary time and effort assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence. Also, Ireland, Hitt and Sirmon (2003) defined entrepreneurship as a context dependent social process through which individuals and teams create wealth by bringing together unique packages of resources to exploit market opportunity. In addition to this, Commission of the European Communities (2003), viewed entrepreneurship as the mindset and process to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management within a new or an existing organization. In relation to entrepreneurship intention, Fini, Grimaldi, Marzocchi and Sobrero (2009) viewed the construct as a cognitive representation of the actions to be implemented by individuals to either establish new independent ventures or to create new value within existing companies.

In order to explain what governs individuals' decisions/intentions to engage in entrepreneurial activities, some models/theories have been developed. Prominent among these theories is the theory of planned behavior which focused on the role of intentions and their power in predicting focal behavior. The theory believed that attitudes, subjective norms and perceived control (self-efficacy) predict intentions while intentions and perceived control (self-efficacy) predict behavior (Ajzen, 1991; Fini et al, 2009). In addition to this theory is Krueger's (1993) entrepreneurial intention model. The model proposed that perceived feasibility and perceived desirability predict the intentions to become an entrepreneur, perceived social norms and perceived self-efficacy are antecedents to perceived durability and perceived feasibility (Krueger & Brazeal, 1994). This study is therefore anchored on these two models as they tried to build upon each other to explain entrepreneurial intention.

Studies that have been conducted on determinants of entrepreneurial intention revealed that several factors, traceable to individual characteristics like gender, age, marital status, employment status (Reynolds, Carter, Gartner, Greene & Cox, 2002; Bates, 1995; Ritsila & Tervo, 2002), attitude (Luthje & Franke, 2003, Wu & Wu, 2008), personality (Crant, 1996), locus of control (Evans & Leighton, 1989), goal setting (Locke & Latham, 1990), self-efficacy (Zhao, Seibert & Hills, 2005), entrepreneurial related education (Guerrero, Rialp & Urbano, 2006) and environmental factors (Grundsten 2004, Lowe, 2002) are responsible for entrepreneurial intention. However, this study focuses on three major factors which are: familial, self-efficacy and personality traits as they affect entrepreneurial intention.

Researchers who studied the influence of familial factors on entrepreneurial intention seem to focus on the modeling influence and the family history of entrepreneurial activities. For instance, the study of Carr and Sequeira (2007) revealed that exposure to family business constitutes important intergenerational influence on intentions to entrepreneurship. Also, McElwee and Al-Riyami (2003) found that children who grew up with entrepreneur parents had a greater propensity to choose an entrepreneurial career. The study of Mueller (2006) also concurred that putting all personal factors influencing a person's entrepreneurial intention together, parental role modeling seemed to be the most significant. Hence, self-employment experience was directly related with entrepreneurial intention of students (Rajman, 2001). Other factors believed to have direct bearing on entrepreneurial intention in the family are the financial resources in the family. This is due to the fact that family members in business have the potential of becoming symbol for entrepreneur and source of financial and non-financial help (Ahmed et al 2010). Based on this review, the familial factors focused in this study are influence of parental occupation and family financial status as they affect entrepreneurial intention.

Of all the psychological variables examined by researchers as causative factors of entrepreneurship, personality traits seem to have been widely explored. This is due to the fact that in synchronization with Holland's theory of career choice that the choice of a vocation is an expression of personality, some researchers have found the same relationship occurring between personality traits and entrepreneurial intentions (Crant, 1996; Zhao & Seibert, 2006). Despite this, the need to conduct more research on the relationship between the two constructs is revealed in the inconsistency in the available research report on one hand and the different measures of personality traits used by researchers. For instance, some researchers found personality traits to be strong determinants of entrepreneurial behaviour (Crant, 1996; Zhao, Seibert & Hills 2005; Zhao & Seibert, 2006). They showed that people who choose self-employment as a career option have a different personality profile

to people who prefer organizational employment (Kolvereid, 1996). On the other hand, researcher like Gartner (1989); Krueger, Reilly and Carsrud (2000); De-Pillis and Reardon (2007) and Gulruz & Aykol (2008) suggested that the use of personality trait to predict entrepreneurial intention gives small explanatory power, predictive validity and inconsistent findings across studies.

Researchers who found a strong relationship between entrepreneurial intention and personality traits found need for achievement, locus of control, innovativeness and risk taking propensity as the most popular attributes influencing entrepreneurial aspiration of people (Begley & Boyd 1987; Johnson, 1990; Lee & Tsang, 2001). Other personality attributes found by other researchers in relation to entrepreneurial intention include overconfidence, optimism, tenacity and passion (Cooper, Woo & Dunkelberg, 1988; Gartner, Gatewood & Shaver, 1991; Locke, 1993; Busenitz, 1999).

Other research experts have used the recent measure of personality traits (Big five personality Taxonomy) to predict entrepreneurial intention. These, personality dimensions include extroversion, neuroticism, agreeableness, conscientiousness and openness to experience. Using scale of Big five personality traits, Goldberg (1981) and Chem, Jing and Sung (2012) found agreeableness, openness to experience, extraversion and conscientiousness to significantly and positively influence entrepreneurship while neuroticism also have significant but negative influence on entrepreneurship. The current study also used the big five personality as a measure of personality trait.

The third independent variable examined in this study; self-efficacy is described by Bandura (1982) as the task-specific consideration of perceived fitness to perform a particular activity. This construct (self-efficacy) has been widely used in diverse fields of study including career choice. But in recent time, self-efficacy has been associated to the pursuit of entrepreneurial activities, perseverance in difficult fields, and personal effectiveness (Markman Balkin & Baron, 2002). In what seems to be an explanation of how self-efficacy influences entrepreneurial intention, Ryan (1970) stressed that self-perception, or the way in which a person perceives his or her abilities and tendencies, play a significant role in the development of intention. Consequently, if certain behaviour is seen as beyond the ability of a person, he or she will not act, although, there may be a perceived social demand for that behaviour.

Available studies which describe relationship between self-efficacy and entrepreneurial intention demonstrated that people with higher entrepreneurial self-efficacy have higher entrepreneurial intentions (Krueger, Reilly & Carsrud, 2000; Segal, Borgia & Schoenfeld, 2002; Wang, Wong & Lu, 2002). Also, Boyd and Bozikis (1994) explained that individuals with higher degrees of entrepreneurial self-efficacy in the early stages of career development will have higher entrepreneurial intentions, and those with both higher self-efficacy and higher intentions will have a higher probability of being involved in entrepreneurial activities later in life. In addition, the study of Lent, Brown and Hackett (1994) found that self-efficacy was significantly related to career interests, career choice, goal (intentions) and occupational performance.

Although, virtually all the courses offered in Colleges of Education in Nigeria have potential for self-employment, vocational based courses (Business Studies, Agricultural Science, Fine Arts, Home Economics and Technical education as well as Music) are believed to be more entrepreneurially based. This affords students offering these courses, double opportunities for self employment and white collar jobs. Unfortunately, a larger percentage of graduates of these Colleges of Education fail to make use of entrepreneurial aspect of their training but are left in the world of work either searching for employment or being underemployed despite their exposure to entrepreneurial education. In the light of this, an investigation into factors which influence such students' entrepreneurial intention is needed.

Moreover, the introduction of entrepreneurial education into Nigeria tertiary education curriculum is relatively recent. Therefore, focus of research into this field of study is also relatively fresh although there are large number of research efforts into students' entrepreneurial intention in the developed society,. Therefore, causative factors of entrepreneurial intention among youths in Nigeria might have not been really established. This study, therefore aimed at exploring the influence of familial factors, personality traits and self-efficacy on entrepreneurial intention among students in Colleges of Education.

Research Questions

The following research questions are raised to anchor this study:

- (I) What is the composite contribution of familial factors, personality traits and self-efficacy to the prediction of entrepreneurial intention of the participants?
- (ii) What is the linear contribution of familial factors, personality traits and self-efficacy to the prediction of entrepreneurial intention of the participants?

Methodology

Research design

This study adopted a correlational research design. This design is adopted as it offers opportunity to determine the relationship between the independent and dependent variables examined.

Participants

The participants for the study include four hundred and seventy (470) vocational based students who were selected through a process of stratified random sampling from the two public Colleges of Education in Oyo State, Nigeria. They are: Emmanuel Alayande College of Education (EACOED) and Federal College of Education Special (SPED). One hundred and eighty-seven (39.9%) were participants from SPED, while two hundred and eighty three (60.2%) participated from EACOED. Also 256 (54.5%) and 214 (45.5%) were female and male participants respectively. Their ages range between 16 years and 25 years with the mean age of 22.4. Furthermore, 127 (27%) of the participants have either one or two of the parents being self-employed; 164 (34.9%) of the participants' parents work with public sectors while 83(17.7%) were private sector employees. Additionally, 53 (11.3%) of the participants have at least one parent unemployed while 25(4.3%) parents of the participants engaged in "other" works. The course of study of the participants include Business Studies (159; 33.8%), Agricultural Science (106; 26.8%), Home Economics (79; 16.8%), Fine Arts (62; 13.2%) and Technical Education (44; 9.4%).

Measures

The instruments used for generating information from the participants include the following:

Entrepreneurial Intention Scale

Entrepreneurial Intention section of the Entrepreneurial Profile Questionnaire (EPQ) used by Leong (2008) was adopted to elicit information on the entrepreneurial intention of the participants. The instrument consists of 9 items with 5-point response format, the higher the score, the higher the entrepreneurial intention. A typical item is "I prefer to be an entrepreneur rather than to be an employee in a company/ an organization". The instrument was reported to have high validity and high reliability co-efficient with Cronbach Alpha 0.87 (Leong, 2008). The test re-test reliability co-efficient of the scale for the current study is 0.79.

General Self-Efficacy Scale

This study adopted Schwarzer & Jerusalem (1995) general self-efficacy type. The scale was a self-reported 10-item scale with a 4 point response format ranging from "Not at all true" (1) to "exactly true" (4), High score indicates high self-efficacy. The instrument is reported to have internal consistency of 0.76 to 0.90. For this study a test – retest value of 0.82 was recorded over a period of two weeks.

Big Five Inventory (BFI)

The Big Five Inventory (BFI) designed by John and Srivastava (1999) to measure 5 major personality domains of individuals was adopted. The instrument was 44-item scale measuring the

domains of extraversion, agreeableness conscientiousness, Neuroticism and openness. The response was in five-point format ranging from Disagree Strongly (1) to Agree Strongly (5).

The scale is scored thus:

Extraversion	1, 6R, 11, 16, 21R, 26, 31R, 36
Agreeableness	2R, 7, 12R, 17, 22, 27R, 32, 37R, 42
Conscientiousness	3, 8R, 13, 18R, 23%, 28R, 33, 38, 43R
Neuroticism	4, 9R, 14, 19, 24R, 29, 34R, 39
Openness	5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

Note that R indicates reverse scoring

The reliability co-efficient of the scale was ensured, using test- retest with the following results:

Extraversion ($r = 0.76$), Agreeableness (0.71), Conscientiousness ($r=0.84$), Neuroticism (0.74) and Openness (0.92). Generally, the combination of the whole variables scale yields a Cronbach Alpha of 0.83.

Familial Factors

Two major aspects of the participants' family background are vital to this study. They are the parental occupation and the family income. Parental occupation is measured by asking the participants to state their parent's present occupations which range from private sector, public sector, self-employment, unemployment, retired to others. The family income was measured by asking the participants to roughly state the total yearly income in their household.

Procedure for Questionnaire Administration

The instruments for this study were administered with the help of some research assistants in the colleges used for the study. These research protocols have been trained on the questionnaire administration. The questionnaire was administered and collected within the period of one week. Five hundred questionnaires were administered to the participants. However, thirty of the instruments were either not completed, not adequately filled or not returned. The researcher was therefore satisfied with the return of 470 copies of the questionnaire which amounts to 94% success of questionnaire administration.

Data Analysis

Two major statistical methods were used to analyze the data generated for this study. They are Pearson Product Correlation Moment (PPCM) and Multiple Regression model.

Results

The current study is anchored by two major research questions.

Research question 1: What is the composite contribution of familial factors, personality traits and self-efficacy to the prediction of entrepreneurial intention of the participants?

Research question 2: What is the linear contribution of each of the independent variables to the prediction of entrepreneurial intention?

The above research questions were answered in the tables below:

Table 1:

Correlation Matrix of the Independent variables and Criterion Measure

	\bar{x}	SD	1	2	3	4	5	6	7	8	9
1. Entrepreneurial Intention	25.68	5.22	1								
2. Parental Occupation	2.89	0.84	.219**	1							
3. Family Income	2.49	1.27	.073	.136**	1						
4. Extraversion	20.70	4.72	.279**	.040	.112*	1					
5. Agreeableness	26.12	4.89	.302**	-.063	-.162**	.017	1				
6. Conscientiousness	25.56	4.10	.436**	.126**	-.001	.145**	.329**	1			
7. Neuroticism	18.05	4.11	-.422**	-.200**	.044	.122**	-.235**	-.323**	1		
8. Openness	24.03	5.05	.831**	.183**	.110*	.254**	.238**	.351**	-.354**	1	
9. Self-efficacy	28.91	5.89	.470**	.084	.125**	.187**	.135**	.334**	-.199**	.428**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

From the correlation matrix above, it could be construed that all the variables examined in this study have significant relationship with the criterion measure (entrepreneurial intention) except family income which have no significant correlation. It could also be found that while other variables: parental occupation, extraversion, agreeableness, conscientiousness and openness have direct relationship with entrepreneurial intention, the relationship is significant but inverse for neuroticism.

Table 2:

Joint Contribution of Independent Variables on the Criterion Measure

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9519.278	8	1189.910	167.606	.000 ^a
	Residual	3272.850	461	7.099		
	Total	12792.128	469			

R = .863 R square = .744 Adjusted R Square = .740

Std. Error of the estimate= 2.66448

Table 2 above revealed that there was a joint effect of parental occupation, family income, extraversion, agreeableness, conscientiousness, neuroticism, openness and self-efficacy to entrepreneurial intention (R=.863). It could be further inferred from the table that 74% variance in entrepreneurial intention could be traced to variables examined in this study. The outcome of the study could further be strengthened by the results of ANOVA from the regression (F= 167.606) which was significant at 0.05 level.

Table 3 above displayed the linear contribution of the dependent variables (parental occupation, family income, extraversion, agreeableness, conscientiousness, neuroticism, openness and self-efficacy) to entrepreneurial intention. The outcome of the study demonstrated that while all the variables examined in this study contributed significantly to the prediction of entrepreneurial intention, only neuroticism aspect of personality trait did not.

Discussion

This study purposed to survey the predictive value of familial factors, personality trait and self-efficacy on entrepreneurial intention both at the composite and linear levels. The result obtained showed that the independent variables when taken together were very strong in prediction of entrepreneurial intention of the college of education students. The magnitude of the relationship of these independent variables is very high as they accounted for about 74% of the total variance in entrepreneurial intention. While other variables outside the scope of this study accounted for the rest 16%. Hence, the significant result would have not been due to chance. The reason for this high predictive value of the independent variables on dependent could not be far fetched as the three major variables examined in this study have been found to have primary importance on decisions to be self-employed (Wong & Lu, 2002; Mueller, 2006; Wang, Zhao & Seibert, 2006).

The fact that parental occupation individually and significantly contributed to the prediction of entrepreneurship is not astonishing as the earlier researchers (Mc Elwee & Al-Riyami, 2003; Mueller, 2006; Carr & Sequeira, 2007) in similar studies have found that children who grew up with an entrepreneur parents had propensity to be self-employed. The reason offered to this is the influence of modeling on entrepreneurial behaviour of individuals. Moreover, traditionally, African parents wish to expose their children to the line of their businesses and occupation. Hence, through this exposure, children might have understood the dividends of self-employment and aspire to engage in similar lines of business of their parents.

Table 3: Relative Contribution of the Independent Variables to Criterion Measure**Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	1.073	1.562		.687	.492
	Parental Occupation	.378	.154	.060	2.451	.015
	Family income	-.092	.101	-.022	-.910	.363
	Extraversion	.067	.027	.060	2.443	.015
	Agreeableness	.077	.028	.072	2.768	.006
	Conscientiousness	.115	.035	.090	3.301	.001
	Neuroticism	-.122	.033	-.096	-3.639	.000
	Openness	.701	.030	.678	23.659	.000
	Self-efficacy	.096	.024	.107	3.987	.000

a. Dependent Variable: Entrepreneurial Intention

The finding showing that all the five measures of personality traits examined in this study significantly predict entrepreneurial intention of the participants is also in agreement with the studies of Kolvereid (1996), Crant (1996) and Zhao & Seibert (2006), who found that entrepreneurial intention, is determined by different personality attributes. The outcome of the current study however disagreed with the studies of Gartner (1989) and Krueger, Reilly and Carsrud (2000) who found personality traits to have small explanation on the entrepreneurial intention of individuals. One amazing discovery of this study is that it is only neuroticism that is found to be anti- entrepreneurial intention among individuals. This could be linked to the fact that such personality attribute is against intra and interpersonal relationship of individuals which the intending entrepreneur would need to set up his own business.

The relationship between self-efficacy and entrepreneurial intention is also high. This is in consonance with the findings of Boyd & Bozakis (1994), Krueger, et al (2000) and Wang et al (2002) who found that people with high sense of self-efficacy have higher entrepreneurial aspiration. The reason could be linked to the fact that belief in one's ability to be successful in a course of action is what potential entrepreneur needs to be successful in his course of action.

Implication for Counselling

Several implications could be gleaned from the outcome of this study. Prominent among these is the need for the counselling practitioners to take notice of variables examined in this study while counselling students and building their entrepreneurial intention. This is because the study has revealed that when these variables are absent in individuals, the intention to be self-employed may be very weak.

Additionally, the study discovered that of all the personality attributes, (using Big Five personality taxonomy), only people with neurotic personality may not intend to be self-employed. If entrepreneurship is then one big way through which the problem of unemployment could be solved, the study suggests the need for counselling practitioners to devise psychological means through which people with neurotic personality would overcome this anti- entrepreneurship behavior.

Also, the study suggests to the counsellors the need to build the self-efficacy of individuals in relation to entrepreneurial behavior through modeling. If parental modeling is very germane to entrepreneurial intention, it suggests the need for counsellors to use other sources of modeling to build the entrepreneurial self-efficacy of students without parents who are self-employed.

In conclusion, this study found that familial factors, personality trait and self-efficacy are very connected with entrepreneurial intention. It is therefore, indispensable for counselling practitioners to make use of these variables while counselling.

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EFFECTIVENESS OF VIDEO-BASED COOPERATIVE LEARNING STRATEGY ON HIGH, MEDIUM AND LOW ACADEMIC ACHIEVERS

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Abstract

This study investigated the effect of cooperative, competitive and individualistic instructional strategies on the performance of high, medium and low academic achievers using video instructional package. A total of 120 senior secondary school mathematics students were randomly assigned into cooperative, competitive, individualized, and conventional teaching methods. Students from each group were stratified into high, medium and low achievers. Video Instructional Package (VIP) on mathematics and Geometry Achievement Test (GAT) were used as treatment and test instruments, respectively. Analysis of Variance and Scheffe test were used for data analysis. Findings indicated that there was significant difference in the performance of the groups in favour of cooperative learning strategy. Students' achievement levels had significant influence on their performance in competitive and individualized instructional settings. It was recommended that mathematics teachers should employ cooperative learning strategies to improve students' performance to bridge the gap among high, medium and low achievers.

Key Words: Video-Based Instruction, Cooperative Instructional Strategy, Competitive Instructional Strategy, Individualistic Instructional Strategy, Mathematics,

Introduction

Education is to assist individuals to maximize their potentials for optimal self and national development. Education is a prerequisite for meaningful and sustained national economy. Education cannot be of quality without effective teaching. The instructional method employed by teacher plays an important role in the acquisition of instructional contents for meaningful learning and development of necessary skills. Teacher-centered instructional methods make students passive with less interaction. Classrooms in Nigeria are predominantly dominated by such method of instruction which does not encourage students-students interaction. Lack of active participation of students is one of the factors responsible for students' poor performances in mathematics (O'Connor, Kanja & Baba, 2000). Secondary schools students' performances are generally less than 50 percent in mathematics for the past one decade (West African Examination Council, WAEC, 2012).

Chukwu (2000) and Adegoke (2011) have criticized the lecture method use by teachers because only hardworking students can benefit from it. Ogunleye (2000) reported that in the era of technological advancement, technology has had minimum impact on education. This is because 80% of teachers in Nigeria are mostly using the chalkboard and textbook method (traditional method) in teaching. Video instructions have been tested in developed nations to determine its effectiveness in relation to learners' achievement. Video-based instruction can be effective for teaching mathematics? To enhance the understanding of mathematics, students must be more active in the classroom and must creatively acquire knowledge, especially in understanding and solving mathematical problems. Students need opportunities to develop, interact, and share with friends through cooperative learning activity. Educators have recognized cooperative learning as a beneficial teaching-learning technique for different subjects (Zakaria, Solfitri, Daud & Abidin, 2013). Cooperative learning is a viable and effective instructional method for teaching and learning mathematics. It makes mathematics exciting and enjoyable for students and teachers. Classroom atmosphere in cooperative setting tends to be relaxed and informal, questions are freely asked and answered, and even shy students find it easy to be involved. Students become friends with their group members, and teachers-students' relationship become relaxed (Iqbal, 2004). Face-to-face interaction, positive interdependence, individual accountability, interpersonal and collaborative skills, and group processing are the five elements essential for increasing the likelihood of success of the co-operative learning endeavour.

Competitive instructional strategy is different from individualistic instruction because it

allows an individual to work according to his own pace. Through competitive instructional strategy, an individual wants to be a winner, succeeding without the group (Johnson & Johnson (1999). Majority of interactions are teacher–student which can create a competitive environment and produce a passive attitude toward learning as students vie for the teacher's approval (Killen, 2007; Harman & Nguyen, 2010).

Students in cooperative learning outperformed those in competitive and individualistic groups respectively (Johnson & Johnson, 1991, Nkebem, 2006). Nkebem (2006) further reported no significant difference between competitive and individualistic modes. Gupta and Pasrija (2012) explored the dominance of cooperative learning methods over conventional method of teaching in terms of achievement and retention. Cooperative learning promotes students' mathematics achievement than those taught with traditional method (Vaughan, 2002, Whicker, Bol, & Nunerery, 1997, Zakaria, Solfitri, Daud & Abidin, 2013). Studies have established that students exposed to computer-assisted cooperative learning settings performed better than those exposed to the same programme individually (Fajola, 2000, Gambari, 2010, Yusuf & Afolabi, 2010). In addition, cooperative learning method is more effective than the traditional teaching method in the academic success of students (Ajaja & Eravwoke, 2010, Samuel & John, 2004, Melihan & Sirri, 2011, Zakaria, Solfitri, Daud & Abidin, 2013).

Cooperative learning is a model of teaching for the purpose of eliminating the achievement gap while traditional methods focusing on individualism in schools may attribute to the achievement gap, cooperative learning focuses on interdependence and learning teams. Studies comparing the achievement of high, middle and low achieving students in competitive, individualistic and cooperative learning situations show that cooperative learning experiences tend to produce higher results for all ages, subject areas and for tasks involving concept attainment, verbal problem solving, categorization, retention and memory, motor performance, guessing, judging and predicting (Johnson & Johnson, 2000). Yusuf, M. (1997) found that there is no significant difference between the high and medium achievement level, and between students of medium and low achievement levels when taught social studies using videotape instruction. This was also supported by Yusuf A. (2004) who revealed that achievement levels have no influence on academic performance of the learners. However, studies other studies revealed that high ability students do perform better than low ability students (Aluko, 2004, Fajola 2000). Also, high achievers in cooperative learning outperformed medium and low achievers respectively (Aiyedun, 1995, Aluko, 2004, Gambari, 2012). Contrary to these, Sherman (1991) revealed that low achievers perform worse in cooperative learning.

Few researches have been carried out regarding the development of video-based instruction for teaching mathematics in cooperative, competitive and individualized environments at secondary school level of education in Nigeria. In addition, the extent of the interaction effects of students' achievement levels (high, medium, and low) on these strategies are yet to be fully confirmed in Nigeria. This study therefore examined cooperative, competitive and individualized use of video-based instruction on the academic performance of the high, medium and low achievers in mathematics.

Research Questions

The following research questions were raised to guide the study:

- (i) What are the differences in the performance of students taught mathematics using cooperative (COOVIP), competitive (COMVIP) and individualistic (IVIP) video-based instructional strategies?
- (ii) What are the interaction effects of students' achievement levels (high, medium and low) when they are taught using students taught mathematics using COOVIP, COMVIP, IVIP?

Research Hypotheses

The following null hypotheses were formulated and tested in the study.

- (i) There is no significant difference in the performance of students taught mathematics using COOVIP, COMVIP, and IVIP video-based instructional strategies.

- (ii) There is no significant difference in the performance of high, medium and low achiever students taught mathematics using COOVIP instructional strategy.
- (iii) There is no significant difference in the performance of high, medium and low achiever students taught mathematics using COMVIP instructional strategy.
- (iv) There is no significant difference in the performance of high, medium and low achiever students taught mathematics using IVIP instructional strategy.

RESEARCH METHODOLOGY

Research Design: A pretest, posttest, experimental control group design was employed in this study. Four levels of independent variable (cooperative, competitive, individualistic and control groups) and three levels of achievement levels (high, medium and low) were investigated on students' performance in Mathematics.

Sample: The target population of this research was the second year senior secondary mathematics students in Minna, Nigeria. The nature of the study, however, required that the research sample was purposively selected. This is because a research using computer CDROM for playing the video package must necessarily be conducted in schools where computers are available for students' use and where the students are computer literate. In all, 120 students were randomly selected using stratified random sampling technique. Each group was assigned into experimental group one, COOVIP (n = 30); experimental group two, COMVIP (n = 30); experimental group three, IVIP (n = 30); and control group, CVIP (n = 30). Equal numbers of high, medium and low students were equally selected from each group.

Research Instrument: The instruments for this research were the treatment instrument "Video Instructional Package (VIP)" and the test instrument, "Geometry Achievement Test (GAT)". The treatment instrument, Video Instructional Package (VIP) on Geometry, was a self-instructional, interactive package (contained buttons placed on the bottom of each page, such as **Play, Stop, Pause, Next** and **Previous** to provide easier control of the package) that lasted for 6 hours for an average student for six weeks. It contained six lessons topics on Angle at a point; Angles and Parallel lines; Angle properties of a triangle; Congruence and similarity of Triangles; Angles of a polygon; Parallelograms; Circles, Loci; and, Construction. Validation and evaluation of the package was done by mathematics experts, educational technology specialists for the appearance, operation, spelling, grammar, readability, and clarity from the viewpoint of persons unfamiliar with the content. In addition, end users' usability validation was done through a pilot study on a sample, similar to the final sample used in the study. The test instrument, Geometry Achievement Test (GAT), a standard examination which had been validated, was a 50 item multiple choice objective test with five options (A – E) were drawn from the past West African Examination Council (WAEC) Senior Secondary Certificate Examination.

Experimental Procedure: The objectives and the modalities of the experiments were specified and operational guide for each strategy were provided for teachers and students. All the groups were subjected to the GAT as pre-test. Then, the students in the first experimental groups were exposed video-based instruction, while the control group was taught using conventional teaching method. The video instructional package was projected on the screen for the experimental groups. They were encouraged to take note and solve some mathematical problems. The treatment for all the groups lasted for six weeks. After the treatment all the groups were exposed to the re-arranged GAT as post-test. specific procedures for each group is fully discussed as follows:

(i) Experimental Group I: Cooperative Video Instructional Package (COOVIP): Students were assigned into three member heterogeneous group. Each member was assigned with different responsibilities such as group leader, time-keeper, scribe/quiet captain). These responsibilities are rotated weekly among the team members. The groups were exposed to COOVIP where each group complete the reading of the materials; perform the tasks together and reached decision by consensus. In order to ascertain that there was no free rider, students were given individual task (assignment) marked and recorded against group scores. After each lesson, each task received a grade and each group members received the group grade (students sought help from each other for attainment of a common goal). Scoring was done based on individual quiz score and team quiz score counted equally

towards the student's final course grade. High scoring teams is recognized and rewarded on weekly basis.

(ii) Experimental Group II: Competitive Video Instructional Package (COMVIP): Students were assigned into three member heterogeneous competitive group. Group leader and time keeper were appointed within the group on weekly basis. The groups were exposed to COMVIP where each competitive group complete the reading of the materials alone (achievement of individual was independent of the group). Each member within a group turns in different solutions and each received different grades based on individual performance. Each student worked to lead other members of the group. After, the lesson, high scoring student within the group is recognized and rewarded in the class on weekly basis

(ii) Individualized Video Instructional Package (IVIP): Each student was assigned to a computer and worked independently. Each of the student were prevented from seeking help from one another and they were widely separated from each other to prevent communication. Each student turns in different solutions and received different grades based on individual performance. After the lesson, high scoring student is recognized and rewarded in the class and this was done on weekly basis.

(iii) Control Group: Conventional Video Instruction (CVIP): The class was exposed to CVIP using laptop connected LCD projector. At the beginning, the teacher introduced the lesson before the video presentation. Students were encouraged to listen and write down note. In addition, after the video presentation, the teacher opens a discussion on the lesson. Comments, questions and discussions were entertained and more worked examples were provided.

Immediately after six weeks of treatment, GAT was administered as posttest to measure the achievement of different groups. The scores obtained were subjected to data analysis based on the stated hypotheses using One-way Analysis of Variance and Scheffe's post-hoc analysis was employed to analyze data. The significance of the various statistical analyses was ascertained at 0.05 alpha level.

Results

To test for the hypotheses, the data were analysed using Analysis of Variance (ANOVA) and Scheffe's test using Statistical Package for Social Sciences (SPSS) version 16 at 0.05 alpha level. The results are presented based on the research hypotheses.

Table 1: ANOVA pre-test on COOVIP, COMVIP, IVIP and CVIP groups

Source of variables	Sums of square	df	Mean (x)	F-calculated	p-value
Between Groups	11.858	3	1.475		
Within Groups	138.142	116	7.660	0.193 ^{ns}	0.901
Total	20150.000	119			

ns: Not Significant at 0.05 level

Table 1 shows the result of ANOVA comparison of the three experimental groups and control group. From the table, the calculated F-value (0.193, $p = 0.901$) was not significant at 0.05 alpha level. This implies that there was no significant difference among the mean scores of the experimental group I (COOVIP), II (COMVIP), III (IVIP) and the control group (CVIP) at 0.05 level. This results shows that students in the experimental groups and control group have the same entry level with regards to previous knowledge of the topic treated.

Hypothesis One: There are no significant differences in the performance of students taught mathematics using COOVIP, COMVIP, IVIP.

To determine whether there were significant differences in the post-test mean scores of the CCI, ICI and control groups, data were analyzed using the analysis of variance (ANOVA). Table 2 contains the result of the analysis.

Table 2: ANOVA post-test on COOVIP, COMVIP, IVIP and CVIP groups

Source of variables	Sums of square	df	Mean (x)	F-calculated	p-value
Between Groups	10119.733	3	3373.244		
Within Groups	1470.133	116	12.674	266.164*	0.000
Total	11589.867	119			

* Significant at 0.05 level

Table 2 present the result of ANOVA comparison of the three experimental groups and control group. From the table, the calculated F-value (266.164, $p = 0.000$) was significant at 0.05 alpha level. This indicates that statistically, significant difference was established among the experimental groups and control group. Hence the null hypothesis one (H_{01}) was rejected. Based on the established significant difference in the post-test achievement scores of the groups, Scheffe's test was used to determine the direction of the differences. The results of this post-hoc analysis are as shown in Table 3.

Table 3: Scheffe's post-hoc analyses of the groups mean scores

Groups	Mean Scores	Group I (COOVIP)	Group II (COMVIP)	Group III (IVIP)	Group IV (CVIP)
Group I (COOVIP)	86.00		*0.000	*0.000	*0.000
Group II (COMVIP)	74.67	*0.000		*0.017	*0.000
Group III (IVIP)	71.67	*0.000	*0.017		*0.000
Group IV (CVIP)	60.20	*0.000	*0.000	*0.000	

* The mean difference is significant at the 0.05 level.

The result in Table 3 indicates that there was no significant difference in the posttest mean scores of students exposed to COOVIP ($X = 86.00$) and those exposed to COMVIP ($X = 74.67$). It also indicates significant difference in the posttest mean scores of students exposed to COMVIP ($X = 74.67$) and those exposed to IVIP (71.67). Significant difference was also established in the posttest mean scores of students exposed to IVIP ($X = 71.67$) and those exposed to CVIP ($X = 60.20$).

Hypothesis Two: There are no significant differences in the performance of high, medium and low achiever students taught mathematics using COOVIP.

To test this hypothesis, ANOVA statistic was used to analyze the mean scores. The summary of the analysis is shown on Table 4.

Table 4: ANOVA results on students achievement levels exposed to COOVIP.

Source of variables	Sums of square	df	Mean (x)	F-calculated	p-value
Between Groups	10.400	2	5.200		
Within Groups	333.600	27	12.356	0.421 ^{ns}	0.661
Total	344.000	29			

ns: Not Significant at 0.05 level

Table 4 indicates the result of ANOVA comparison of students' achievement levels (high, medium and low). From the table, the calculated F-value (0.421, $p = 0.661$) was not significant at 0.05 alpha level. This implies that there was no significant difference among the mean scores of the high, medium and low groups, at 0.05 level. Therefore, hypothesis two was not rejected.

Hypothesis Three

There is no significant difference in the mean performance scores of high, medium and low students exposed to COMVIP.

To test this hypothesis, ANOVA statistic was used to analyze the mean scores. The summary of the analysis is shown on Table 5.

Table 5: ANOVA results on students achievement levels exposed to COMVIP.

Source of variables	Sums of square	df	Mean (\bar{x})	F-calculated	p-value
Between Groups	259.467	2	129.733		
Within Groups	79.200	27	2.933	44.227 ^{ns}	0.000
Total	338.667	29			

ns: Not Significant at 0.05 level

Table 5 shows the result of ANOVA comparison of the three groups in experimental group II (COMVIP). From the table, the F-value (44.227, $p = 0.000$) was significant at 0.05 alpha level. This implies that there was significant difference among the mean scores of the high, medium and low achiever students in experimental group II (COMVIP) .

Based on the established significant difference in the post-test achievement scores of the groups, Scheffe's test was used to determine the direction of the differences. The results of this post-hoc analysis are as shown in Table 6.

Table 6: Scheffe's post-hoc analyses of the groups mean scores

Groups	Mean Scores	Group I (High)	Group II (Medium)	Group III (Low)
Group I (High)	78.20		*0.001	*0.000
Group II (Medium)	74.80	*0.001		*0.000
Group III (Low)	71.00	*0.000	*0.000	

* The mean difference is significant at the 0.05 level.

The results in Table 6 indicate that there was significant difference in the posttest mean scores of high achiever students ($X = 78.20$) and medium achievers ($X = 74.80$). It also indicates significant difference in the posttest mean scores of medium achievers ($X = 74.80$) and low achievers (71.00). Significant difference was also established in the posttest mean scores of high achiever ($X = 78.20$) and low achiever students ($X = 71.00$).

Hypothesis Three: There is no significant difference in the mean achievement scores of high, medium and low students exposed to IVIP.

To test this hypothesis, ANOVA statistic was used to analyze the mean scores. The summary of the analysis is shown on Table 7.

Table 7: ANOVA results on students achievement levels exposed to IVIP

Source of variables	Sums of squares	df	Mean Square	F-value	p-value
Between Groups	260.267	2	130.133		
Within Groups	68.400	27	2.533	51.368*	0.000
Total	328.667	29			

ns: Not Significant at 0.05 level

Table 7 shows the results of ANOVA comparison of high, medium and low achiever students exposed to IVIP. From the table, the F-value (51.368, $p = 0.000$) was significant at 0.05 alpha level. This implies that significant difference was established among the mean scores of the high, medium and low achiever students.

Based on the established significant difference in the post-test achievement scores of the groups, Scheffe's test was used to show the direction of the difference. The results of this post-hoc analysis are as shown in Table 3.

Table 8: Scheffe's post-hoc analyses of the groups mean scores

Groups	Mean Scores	Group I (High)	Group II (Medium)	Group III (Low)
Group I (High)	75.40		*0.000	*0.000
Group II (Medium)	71.40	*0.000		*0.001
Group III (Low)	68.20	*0.000	*0.001	

* The mean difference is significant at the 0.05 level.

The result in Table 8 indicates that there was significant difference in the posttest mean scores of high achiever exposed to IVIP ($X = 75.40$) and medium achiever ($X = 71.40$). It also indicates significant difference in the posttest mean scores of medium achiever students ($X = 71.40$) and low achiever (68.20). Significant difference was also established in the posttest mean scores of high achiever ($X = 75.40$) and low achiever students exposed to IVIP ($X = 68.20$).

Discussion

The results of the analysis of ANOVA on the performance of students taught Geometry using cooperative video instructional package (COOPVIP), competitive video instructional package (COMVIP), individualistic video instructional package (IVIP) and those taught using conventional video instructional package (CVIP) method of instruction indicate a significant difference in favour of the students taught with COOVIP. The findings agree with Johnson and Johnson (1991) and Nkebem (2006). Students exposed to video-based cooperative instructional package performed better than those in conventional video-based instructional package, this agrees with the findings of Gupta and Pasrija (2012), Parven (2003) for general sciences and also positive gains in attitude and achievement of students exposed to mathematics in cooperative learning setting (Vaughan, 2002, Whicker et al., 1997, Zakaria, Solfitri, Daud & Abidin, 2013).

Results also indicated that those taught with COOPVIP outperformed those taught using IVIP. The finding agree with the findings of Fajola (2000), Gambari (2010), Yusuf and Afolabi (2010) which reported that students exposed to computer-assisted cooperative learning settings performed better than those exposed to the same programme individually. The result also indicates that those taught with COOPVIP outperformed those taught using CVIP. The finding support the findings of Samuel and John (2004), Ajaja and Eravwoke (2010), Melihan and Sirri (2011) which concluded that the cooperative learning method is more effective than the traditional teaching method in the academic success of students.

The success of COOPVIP over the COMVIP, IVIP and CVIP could be attributed to implementation of five elements of cooperative learning which include: face-to-face interaction, positive interdependence, individual accountability, interpersonal and collaborative skills, and group processing. On achievement levels (high, medium and low) ANOVA results showed that students' achievement levels have no influence on academic performance of student in cooperative setting, while achievement levels influenced their performance in competitive and individualized environments. This finding agrees with the findings of Yusuf, M. (1997) and Yusuf, A (2004) who found that there is no significant difference between the high and medium achievement level, and between students of medium and low achievement levels when taught social studies. However, this finding contradicts the findings of Aiyedun (1995), Yusuf (1997), Fajola (2000), Aluko (2004), and Gambari (2012) found that high achievers in cooperative learning outperformed medium and low achievers respectively. Goldman (2005) found that only the high and low achievers benefited from cooperative learning.

Conclusion

This study evaluated various literatures on effectiveness of cooperative, competitive and individualized instructional strategies. The study showed that the use of cooperative video-based instructional package improved the performance of students in mathematics (Geometry). The better

performance in Geometry could be as a result of the effectiveness of the COOPVIP package. Also, the COOPVIP enhanced the equal performance of students at different achievement levels (High, Medium and Low). In addition, competitive video-based instructional package (COMVIP) and individualized video-based instructional package (IVIP) favoured high achievers against medium and low achievers. COOVIP was more effective in teaching the mathematical concepts of Geometry and are also favour low and medium students.

Recommendations

Based on the findings of the study, the following recommendations were made. Video-based instruction should be used in cooperative settings to bridge the gap among high, medium and low achieving students. Also, instructional media such as computers should be provided and adequately programmed with variety of video-based instructional packages. Teachers at the secondary school level should be trained on implementation of cooperative learning strategies so as to improve their performance in mathematics.

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AN APPRAISAL OF THE LANGUAGE QUESTION IN THIRD-GENERATION AFRICAN FICTION

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Abstract

*African fiction and the medium of its communication have engaged the attention of critics and writers for some time now. While a group in the early sixties led by Ngugi wa Thiongo advocated the use of African languages, others like Achebe would rather domesticate English to project African values. For some language formalists like Soyinka, there is no contest as language choice is considered a lame-duck discourse and "poetics of praying mantis". This paper interrogates how the new generation of writers has grappled with the age-long issue of languages of expression for African literature. This is with a view to determining if there is a paradigm shift in linguistic choice especially by third-generation Nigerian writers. The focus is an analysis of language strategies employed in selected third-generation Nigerian novels. Through a close and comparative reading of two purposively selected African novels – Shade Adeniran *Imagine This* and Doreen Baigana *Tropical Fish*, the paper highlights the stylistic and formal strategies employed by the writers. In addition to strategies such code-mixing, code-switching, inter-language and the like, earlier noted by scholars, the paper isolates Americanisms, loan words, hybridization, coinages as mechanisms of language mediation in the texts. This demonstrates that third-generation writers are not only sensitive to the vexed issue of medium of expression of African literature, they also inject fresh strategies to accommodate linguistic diversity and portray the transnational tilt of their works. This ultimately makes the creative productions accessible as globalized art forms.*

Key words: Third-generation, African fiction, language, globalization, domestication.

Introduction

The debate on the status of English and indeed other European languages in the delivery of African literature has come a long way. This debate since Obi Wali's (1968) essay has assumed a life of its own. So important is the issue that many scholars seem to have come to a subtle conclusion on its seeming intractability. While several interventions especially from major creative and critical quarters have continued to dynamise and problematise the debate, it is clear that the matter is far from being concluded. As a matter fact, the current globalising wave which comes on the heels of the explosion of the age of information technology has further compounded the issue. This is to underscore the point made by Anyokwu (n.d.) that "The point is, English is the linguistic aspect of globalization, as earlier highlighted, which has completely overrun Africa, thus further problematising the issue of identity" Therefore, as the world is continually integrated, rather than exposing the several world languages and putting them on the global map, the development has paradoxically enhanced the former colonialists' language, most especially English and French.

What the above implies is apparent. English, French and other European languages would continue to dominate the scene for a long time. What does this portend for the continuous growth and flourishing of African literary corpus? Why has it been difficult for African writers to evolve a common front? In what ways can current or new writers play different roles that would ensure that, amidst this conundrum, the creative enterprise which has the imperative of disseminating the African experience is not stifled?

This paper seeks answers to the aforementioned posers. In doing this, the peculiarity of language use and exploration by two third generation African writers namely Shade Adeniran in *Imagine This* and Doreen Baigana in *Tropical Fish*, shall be evaluated. The objective of the paper is not to suggest that the two writers have written distinctively from their precursors or peers, rather, the paper attempts to demonstrate that the writers have continued to engage the language question creatively without undermining the African consciousness in their novelistic agenda.

Third-Generation African Writing

Describing third-generation African writers, Olusegun-Joseph (2011,p.2) laments that they are writers,

Living within a grossly harassed socio-political reality of institutional corruption, nepotism and the atomizing blight of economic hardship, the bulk of new Nigerian writers are embattled within a riddled educational universe, the impossibly high cost of publishing, a depleted audience more drawn to film than to books and the inertia of spirited criticism in engaging with their literary wares (2)

From the foregoing, it is deducible that third generation African writers are products of peculiar circumstances. In other words, the circumstances of their emergence are a consequence of certain socio-political developments in the African body polity. This probably explains their description by African online magazine as "... writers of a disillusioned Africanist enterprise, who are not naïve about international realities but have become more hesitant about blaming outsiders because they have experienced a lot of enemies within' (7).

Across Africa and her literary landscape are such writers who lend to this critical probing. This is consequent upon experiences arising from socio-political instability and incursion of the military in governance in most post-independence African states. Therefore, twenty-first century African writing can best be described as a child of circumstances. It should be remarked that, the attendant disillusionment which came in the wake of failed political leadership in several countries on the continent necessarily results in political colouration of African literary productions. With economic downturn recorded in most African societies, the germination and flourishing of artistic industries became difficult. However, energised by the globalising forces of the age, the writers gradually discovered their voices hence engendering a renaissance in the creative industry.

In Nigeria particularly, the writers are voices who operate from several locations – home and Diaspora, and who constantly revisit themes of the state of their homelands. Even for those permanently located in the West like Chris Abani and Chika Unugwe, their location merely broadened and globalised the intensity of their artistic offerings. All these evidently colour the writings and in terms of language use, the third-generation of African writers are exemplary in the fusion of domesticated strategies which showcase their works as world literature, written in world languages, but also accessible to a global audience. They therefore do not alienate their artistic sources in the language of expression, either in English and French.

Overview of the Language Question

There is no poverty of scholarship on the language question in African literature. The issue has been addressed from both literary and linguistic perspectives. Literary scholars have dwelled extensively on this challenge starting from the early critics through later ones in African critical enterprise. (Wali 1969; Achebe; 1997; Adekoya, 1997; Kehinde, 2004 ; Ayeleru, 2011; Anyokwu, 2012). For language scholars such as (Bamgbose, 1998; Bamiro, 1991; Igboanusi, 2001), there is no disputing the place of English in African literary enterprise. Even though there is no consensus as to how this issue could be firmly addressed, the contentions have clearly demarcated the diversities of the arguments. There is no doubting the fact that in the literary consciousness of early African writers like Achebe, Soyinka and Ngugi wa Thiongo, the issue of language of expression is very topical.

However, while the duo of Soyinka and Achebe seem to have accepted the challenge as part of the realities of their location as African writers who evolved through an amalgamation of experiences from colonialism through neo-colonialism, and most recently, globalisation. However, Ngugi remains relentless in the struggle and seems to have taken the battle to higher fronts. In a recent article, Ngugi (2013, p. 2) challenges African knowledge producers along the language precincts:

So if we want to develop knowledge, philosophy, and other arts through African languages, then we have to learn how to listen to what African tongues are saying. The pen should work with the tongue; walk together; help widen, spread, and store the products of the tongue in productive spaces. Pen and tongue should journey together to search for education, knowledge and philosophy, help it grow and spread.

What comes out from the above is that, Ngugi has over the years deepened his argument for the use of African languages to convey the society's values and consciousness. This implies that, the writer and critic is aware of the moral dilemma involved in literate knowledge production in Africa, which of course does not preclude. Adejunmobi (1999, p. 583) calls this "moral stigma". She elaborates that "Right from the outset then, at a time when the very existence of an African literature remains controversial in some quarters, a moral

stigma was already attached to the fact of writing in European languages". Reconciling this contention with Achebe's (1997,p.347) re-echoed poser on the unique stature of English in Africa, one is left to ponder as he offers an explanation:

What is it that has conspired to place English in the position of national language in many parts of Africa? Quite simply, it is the fact that these nations were created in the first place by the intervention of the British, which (I hasten to add) is not saying that the peoples comprising these nations were invented by the British

It is deducible from the above that the language issue is indeed a knot that has been difficult to untie and may remain so for some time.

Ngugi's age-long position, has however been described by many critic as self-contradicting. This stems from the fact that, Ngugi does not seem, in the opinion of a scholar like Vakunta to be consistent. The critics carpet Ngugi's self-defeatist position which has clearly shown that he overtly favours English despite his nativistic apostasy. Citing several instances of translation from Gikiyu to English and the continued pursuit of his literary career using the English language, Vakunta(n.d), p.77,78) summarises his opinion of Ngugi's efforts thus:

It is disingenuous to limit the examination of a people's literature to the 'wrapping' at the expense of other constituting factors. I do not think that the language in which a work of literature is written is really as important as Ngugi and Wali perceive it. What is more important is the message/content and the stylistic devices employed to convey intended messages. It does not matter which language writers choose to glean their signifiers from, all that matters is what is being signified. I feel that one should judge whether or not a novel is "African" by what is being signified, not by the language from which the signifiers are culled.

Notwithstanding the critical venom above, the fact remains that Ngugi's position is not without its merit. What is important is not to dismiss the critics' articulations, but rather, writers and critics alike are supposed to appreciate this reality and deploy the consciousness in the creative and critical imaginations. This aligns with the observation of Ayeleru (2011,p. 3) that:

In their texts, they deploy, in a specialized manner, linguistic strategies like African orature, proverbs, translation/transliteration, pidginization, intra/intertextuality, euphemism, metaphor, and metonymy...The new generation of West African writers are daring in the subversion and appropriation of the European languages with which they produce their texts. They freely deploy different linguistic strategies to indigenize and domesticate the borrowed medium they employ.

The point from the above is that writing in English is not odd or misplaced. Rather, the content and style of writing which fail to appropriate the sensibilities of the enabling milieu is damnable and incapable of portraying the actual experiences of the cultures being mirrored. Given the Gaurav Desei, position in "English as an African Language" (1993) English is, therefore, capable of being appropriated and successfully Africanised, therefore, the African writer through the medium of English language can successfully navigate the stormy waters of language choice and cultural consciousness. Desei quotes theorist Mikhail Bakhtin, to support the view that a world language can be indigenised once a writer "populates it with his own intention, his own accent, when he appropriates the word, adapting it to his own semantic and expressive intention" (Bakhtin qtd. in Desei 6).

For a writer such as Ken Saro Wiwa, the prospect of using Pidgin is very viable. Though the late writer earlier insisted the use of English as creative medium is sacrosanct; much later in his career, and apparently in a bid to further his political end as an environmental activist, Saro Wiwa became a linguistic apostle of Pidgin and his famous novel *Sozaboy* is a clear testimony of his conviction. This is what Olusegun Adekoya (1997 p.166) refers to as linguistic "experimentation". In fact, Adekoya's study of the use of Pidgin in Zulu Sofola's *Wizard of Law* underscores the need to embrace its use for creative communication, since "it is a register on its own right and works for its users as a medium of communication"

In general, the climate of critical position seems to favour creativity in linguistic deployment in African literature. This creativity would certainly involve a consistent effort at domestication of standard orthography as well as infusion of indigenous elements in a bid to achieving better impact and effective message delivery to intended audience.

Energising a Tradition: New Approaches of Domestication

There is a need to examine how the present crop of writers has fared in the task of deploying English in the present. The choice of Sade Adeniran and Doreen Baigana as textual references for this paper is hinged on a number of factors. The two writers share boundaries in aesthetic and stylistic corridors. Apart from being debutant female novelists, they are part of an emerging generation popularising the African Bildungsroman as a viable novelistic form that helps engage the postcolonial African condition (Okuyade, 2009). In addition, they are less visible among writers of their generation such as Chimamanda Adichie and Sefi Attah. Hence, critics have not sufficiently engaged their works.

To begin with Doreen Baigana's *Tropical Fish*, the novel is adequately imbued with domesticated English and expressions which deepen the thematic and stylistic thrusts of the novelist. Set in Uganda in the heat of political upheaval under a bestial ruler, Idi Amin, the novel is a commentary on the decadence of the society. Also, the novel captures the frustrations of the individual in such a milieu. Actually, the prevalence of transnational ethos and aesthetics is captured in choice of language of expression by the characters in the novels. Essentially a satire of the Ugandan condition, *Tropical Fish* also touches on cosmopolitan and postcolonial issues of identity, HIV/AIDS pandemic, racial discrimination and the like.

All the aforementioned tropes are however given bite through specific domestication strategies such as the use of loan words, Americanisms, code-switching and hybridised expressions. In fact, *Tropical Fish* is so replete in loan words that the novelist seems to deliberately use this as a means of identity authentication. Examples are listed below:

- *Kantonge, wange (15),*
- *agandi basebo (16),*
- *kanzu (16),*
- *posho (20),*
- *bambi (31),*
- *bazungu (40),*
- *sapatu (48)*
- *bodingi (56),*
- *gomesi (59),*
- *munange* (61)

The above loan words are drawn from Swahili language and they go a long way in showing that Swahili is the domesticating agent of the English expressions in the novel. They also point to the fact that, the setting and primary audience of the novel is a Swahili milieu.

Code-mixing, aptly described by Bamiro as “the transfer of untranslated words into a text as a counter-discursive strategy of ‘Otherness’, code-mixing is a device that directly confronts and challenges the territoriality of a dominant discourse in the context of a multilingual and multicultural setting” (2000, p. 98 qtd in Bamiro, 1991, p. 317), is also effectively deployed in *Tropical Fish*. In a sense, both code-mixing and loan words highlighted earlier are strategies for “nativisation” or self-assertion. They effectively indigenise the diction of the novel. Examples of code switching in the novel include:

- Mary, bambi, my bread has gone stale (31)
- I wish a prefect would come running in right now and announce that Mama is here (33)
- There were about two bazungu left (40)
- The cassava sat like a rock in my belly (35)

In addition to the above, *Tropical Fish* also contains domestication strategies like transnational loan words such as *Juju, doh-doh, ganja* (90), duka-Hausa; Hybridisation with words such as *Shambaboy* (11) while Americanisms are exemplified in expressions which include : “ Fuck the children, fuck them” (23). The point to be made therefore is that, through the deployment of strategies identified above, Doreen Baigana evidently makes a statement that the third-generation African fiction writer endears his/her craft to the literary audience by engaging the realities of the milieu via a domesticated linguistic-cum stylistic mechanism.

Shade Adeniran is a Nigerian female writer whose craft can also be discussed in relation to choices of linguistic expression. Apart from heavily colouring her epistolary novel with African imageries and metaphors, *Imagine This* is a novel which underscores the importance of “Africanisation” of English. Granted that the strategies of domesticating English in Shade Adeniran’s *Imagine This* are not strange, yet, one can easily discern the creativity and novelty she brings to bear, especially in the desire to blend medium and message.

The theme of Shade Adeniran’s *Imagine This* centres around the physiological longing of home and the paradox of belonging. In other words, identity is the crux of the novelist’s preoccupation. However, it is evident that, Adeniran’s ulterior ambition is to universalise the identity issue by deconstructing the idea of home, a common trope in twenty-first century African fiction, which develops a problematic around the home/exile consciousness. The point is apparent that, through the character portraiture of Lola and the attendant frustrations of existence, the novelist suggests that location hardly determines fate; rather, fate is a construction of existential vicissitudes.

In projecting the above thematic thrust, domesticated English readily becomes Adeniran’s tool of navigation. Given the fact that “language is a means of representation which also functions as instrument of control...and a means of achieving personal fulfillment”, Adeniran’s linguistic mediation revolves around the characterisation of Lola and her aspiration for self-actualisation in her roots. To achieve this, Adeniran’s strategies of pidginisation, coinages, nativised expressions appropriation/use of proverbs code-mixing and loan words shall be highlighted.

Shade Adeniran punctuates her prose with expressions from the Yoruba worldview. She uses this to draw attention to the root seeking agenda of her protagonist, and to a great extent, the expressions depict the setting of the novel. This also shows the variant of English spoken in the environment. Examples include:

- Five years is a very very long time (26)
- it was the small fried akara that made my stomach to talk (24),
- I was inside myself but outside myself (28),
- wife number two (75),
- You think I was born yesterday (134),
- face-me-I- face-you (41)

As can be seen in the examples above, the expressions are more or less transliterated from the native language to convey meaning. Closely related to this is code-mixing, which as explained earlier generally depicts a situation of contact between languages, as seen in the following examples:

- I wanted to buy some akara (5)
- An iro and buba (18)
- They are called agbepo (41)

Shade Adeniran promotes Nigerian Pidgin English extensively in *Imagine This*. She has a firm grasp of this deviant form and masters the registers. The exploration of Pidgin English, on the one hand is used to promote diversity especially in Lagos, a cosmopolitan setting of the novel. On the other hand, Nigerian Pidgin deployed in *Imagine This* suggests its wide acceptance and popularity of the English variant in the twenty-first century, especially its growing influence in arts and entertainment. *Imagine This* is replete in this domestication strategy, as exemplified below:

- Na your fault we never live for time (7)
- Come and chop (8)
- Na im cut am, so she no go die (17)
- Wetin dis pikin do you? (58)

- I don't carry belle, we must marry (75)

Another domestication strategy prevalent in *Imagine This* is the invocation of cultural images and consciousness. This is achieved through a deep exploration of Yoruba proverbs and other cultural resources. Also the loan-words from Yoruba language symbolise a conscious effort at attenuating Standard English and altering same for creative expressions. In fact, the varieties of loan words also suggest the desire of the protagonist to share in the language experience of the imaginary root. Loan words and proverbs in the novel are a deliberate attempt at marrying diction with thematic and ideological thrusts. Examples include :

Loan Words

- akara (5),
- Idogun; atiporo (11),
- Ajapa (Ijapa) (17),
- Iro and Buba (18),
- juju (21),
- babalawo (24),
- Ole (25),
- Egungun (26),
- agbepo (41),
- moi-moi (58),
- Oba (79),
- gele (143),

Proverbs

- Whatever the eyes of a dead man see in the burial yard is caused by death (3),
- No matter how long a log may float in the water, it will never become a crocodile (252),
- The river is never so full that it covers the eyes of the fish (217)
- It is the fly that has no one to advise it that follows the corpse into the grave (201)
- The teeth are smiling, but is the heart? (58)

Our view from the analysis of the two writers is that they have demonstrated an abiding faith in the domestication of English. They have, in addition to previously exploited strategies, deployed their artistic craft in capturing the realities of the global age and the place of postcolonial order that has evolved into a global citizenship. Through the diversities and dynamics of the mediated English in the works, the writers evidently lend themselves to the observation by Igboanusi (2011, p.57). He remarks:

Consequently, they try not to distance themselves from any of their two groups of readers. They use the English language which is European in such a way that they incorporate the idiom and language resources of Igbo while ensuring that the English language grammar is not terribly distorted. This effort may be conscious. The problem with the use of English in creative writing by African writers is largely a problem of culture. It is, no doubt, a fact that a society's language is an aspect of its culture. African writers carry and transfer some of the cultural nuances of the indigenous African people into English. To be able to play this role effectively, the structure of native-speaker English has to be adjusted.

In effect, what the above suggests is that, the use of English as a medium of transporting African consciousness in the corpus of written literature is a dynamic engagement. In order to imbue this with innovation and continuous creativity, writers must seek fresh ways of arresting the intrinsic resources of the language to energise the African experience. This becomes particularly relevant in the twenty-first century where the tension of existence continues to confound artistic creativity. Chinua Achebe (2012, p. 55) in *There Was a Country* underscores this further that:

Engaging such heavy subjects while at the same trying to help create a unique and authentic

African literary tradition would mean that some of us would decide to use the colonizer's tools: his language, altered sufficiently to bear the weight of an African creative aesthetic, infused with elements of the African literary tradition.

Achebe's admonition above is written conscious of the challenges of the twenty-first century. In this vein, the fact that, writers would require greater skills of altering English and entrenching the domestication strategy already established by earlier writers becomes an imperative.

Conclusion

Language is a creative resource. Apart from the fact that it is generated within a given culture, it has the capacity to exude ideology and position its users in a given direction. The inherent capacity of language for dynamism enhances its agency of creative engagements. Since language is beyond a set of conventional rules, its full exploration and exploration go a long way in repositioning the worldview of its users. Hence, in deploying and injecting freshness in its usage, third-generation writers in African fiction have re-orchestrated the interconnection between linguistic experimentation and creative innovation. As demonstrated in this paper, the oeuvres of literary offerings of third-generation African writers exemplify the direction of the novels.

To sum up, this paper avers that, through the deployment of identified strategies, third generation writers are empowered to engage larger issues in the twenty-first-century. In addition, the art of the writers is creatively energised through the path of language. The writers hence deepen the domestication tendency in African literature and position the artistic and thematic concerns of the novels on the global plane. To agree with Anyokwu (n.d) that :

It is, however, trite to continue to bemoan the continued use of English since it is only one, if crucial, aspect of the comprehensive colonization of the African world. The African writer's adoption of English should be appreciated within the context of the African's dependence on Europe (2, accessed June, 2012)

As Anyokwu implies above, contestations and ruminations over the English language should be rested. This is because of the seeming indispensability of the language in positioning indigenous cultural experiences and ensuring that, African literature is not sidelined in the global corpus. Perhaps, rather than dissipate energy on the impropriety or denying that African literature in English is a misnomer, it would be fruitful to advocate, as Kehinde (2004, p.1) suggests that "in this age of globalization, African writers cannot afford to deny their works of wide readership; therefore, they should consider the appropriation and reconstitution of English as a medium of African literature."

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EFFECTIVENESS OF CAREER DEVELOPMENT AND COGNITIVE REFRAME THERAPY ON IRRATIONAL CAREER THOUGHTS AMONG SECONDARY SCHOOL STUDENTS IN OGUN STATE, NIGERIA

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Abstract

Choosing a professional career is an important step that influences the aspirations of students. Students sometimes are unable to make a decision about the career they wish to pursue later in life. Career practitioners in Nigeria have observed that most secondary school leavers in Nigeria often make poor career decisions due to unrealistic vocational aspirations. Despite vast researches on adolescents' career problems, irrational career thought remain largely understudied within the field of vocational psychology in Nigeria. This study examined the effectiveness of Career Development (CD) and Cognitive Reframe (CR) therapy in reducing irrational career thoughts of secondary school students. A sample of 96 Senior Secondary School one students with irrational career thoughts were purposively selected from three randomly selected Senior Secondary Schools in Ogun State Nigeria. There were two treatment conditions (CD and CR) that lasted for seven weeks. Career Thought Inventory ($\alpha = 0.86$) was used to collect data. Data were analyzed using Analysis of Covariance. There was a significant main effect of treatment on dysfunctional career thoughts of secondary school students. CD and CR were found to be effective in reducing irrational career thoughts of secondary school students. Implications of these on career development in Nigeria were discussed.

Key Words: Career development therapy, Cognitive reframes, Irrational career thoughts, Secondary school students, Nigeria.

Introduction

Making the right career choice that would keep adolescents relevant in the scheme of things in an emerging economy like Nigeria could be daunting and difficult. Nigerian adolescents in secondary schools are often preoccupied with so many thoughts of future career prospects. This, more often than not, often predispose these adolescents to irrational thoughts. Such irrational thoughts could be debilitating to the society and psychological well-being of adolescents. Transition from secondary school to workplace, college or university is a critical path through which every adolescent must pass through (Cassie, 2005). However, it is not uncommon to aver that many of these adolescents are left unguarded while transiting from college to workplace. Most often, parents, teachers, and friends have encouraged secondary school students to proceed to the university while a good number of secondary school students may end up attending universities without knowing why or what they intend to study. For many, this is an important time for career-related matters that will be beneficial to them. As they face the need to choose an academic major, as well as to develop career goals for the future, career problems often become a developmental phase they must pass through in making proper career choices for life.

Several studies have been conducted on adjustment difficulties adolescents face in relation to career and planning. (Hiebert, Collins & Robinson 2001; Magnusson & Bernes, 2001; Pyne & Bernes, 2002; Pyne, Bernes, Magnusson & Poulsen, 2002; Bardick, Bernes, Magnusson & Witko, 2004). Adolescents have received a lot of attention because it is at this stage of life that individuals first begin to prepare and eventually train themselves for a future career in order to become independent adults.

Career development process should start at an early age. Learning about different careers early could enable students have a better understanding of types of jobs they would want to explore in the future. Career process may start formally as early as primary school and could continue throughout secondary school because of many uncertainties especially in an unstable economy like ours. Career uncertainty among secondary school students remains a constant challenge in the entire globe. According to Rosenbaum (2001), in a national survey in the United State of America, nearly all high school seniors (95%) plan to attend college. A study indicated that approximately 20 per cent of students who attend four year college are undecided as freshmen (Hayes, 1997). This transition from

secondary school to university may be extremely difficult for many students, leaving them with unanswered questions and confusion when it comes to choosing a career. Adolescents in Nigeria are not exempted from this career dilemma. The foregoing problem has led to several studies in career development among adolescents in secondary schools by some researchers over the years in Nigeria (Adeyemo, 1996, 1998, 1999; Kuti, 1979; Osakinle & Adegoroye, 2008; Salami, 1997, 2000). Writing on the dilemma faced by young adults, Schneider and Stevenson (1999) were of the opinion that career development is an important aspect of adolescent life. They reasoned that though adolescents were more than ever motivated, nevertheless, they appeared directionless. It can be reasoned that young people have high ambitions. They are naturally motivated and develop some great quest for good education. With all these, adolescents might have difficulties in developing coherent plans for achieving these goals. Career guidance and academic counselling can therefore, provide students with the necessary tools to set career goals, and give them an understanding of the education and skills needed to meet their goals.

Career decidedness is a dynamic and interactive problem space that has been the subject of research in Nigeria over the years (Adeyemo, 1996, 1998, 1999; Kuti, 1979; Salami, 1997, 2001a, 2001b, 2003, 2004, 2005; Salami & Onyeacho, 1998). Further studies showed that most secondary school leavers in Nigeria make poor career decisions because of their unrealistic vocational aspirations. It is reported that students select occupations mainly because of the salaries, positions, glamour and prestige attached to them (Salami, 1997). For instance, adolescents prefer medicine, engineering, law, banking, architecture, and pharmacy as professions they intend to enter into after graduating from secondary school without adequate knowledge of what it takes to succeed and achieve in those occupations (Salami, 2000). It is therefore important that secondary school counsellors help adolescents make satisfying educational and occupational decisions.

In a developing country like Nigeria, career counselling is needed as a vital tool for developing youths. The choice of a career especially among diverse options is usually a difficult task among adolescents. There is need to guide adolescents in planning for careers and making life fulfilling decisions. Again, the school system has been seen to be responsible for assisting adolescents in making competent career decisions that are appropriate to their abilities, attitudes, interests and other personality characteristics. School administrators must strive to assist students through adequate career counselling, providing guidance in career selection by qualified career counsellors in schools to help students overcome irrational career thoughts.

Sampson, Peterson, Lenz, Reardon and Saunders (1996) were the first scholars to identify irrational career thoughts as a component of career decision making process. Sampson et al. (1996) sought to enhance career decision-making among students by helping them reduce the impact of irrational career thinking on their career decisions, themselves, options, and decision-making abilities. These could contribute to indecision, anxiety and depression, that may in turn hinder proper career development and later life adjustment (e.g. inability to get a gainful employment after graduation may alter the ability to move from being a dependent adolescent to an independent adult.).

Irrational career thought according to Sampson et al (1996) is a perceptual way of viewing oneself in a manner that inhibits career problem-solving and decision-making. Researchers have found irrational career thoughts to be a strong indicator of career indecision (Osborn, 1998; Saunders, Peterson, Reardon, & Sampson, 2000). According to Saunders et al (2000) this accounts for 61 per cent of the variance in career indecision. Research has brought to the fore the presence of irrational career beliefs and thoughts in adolescence. This phenomenon has been labeled by various professionals in the past as myths (Dorn & Welch, 1985), self-defeating assumptions (Dryden, 1979), dysfunctional career beliefs (Krumboltz, 1990), and dysfunctional cognitions (Corbishley & Yost, 1989). All these point to the seriousness of irrational career thoughts among adolescents.

Some studies have further shown that irrational career thoughts are related to some emotional states in adolescents such as perfectionism (Osborn, 1998), anger expression (Strausberger, 1998), and depression (Saunders, Sampson, Peterson, & Reardon, 2000). These emotional states can be linked to decision-making problems. Sampson et al. (1996b) reported that the Career Thoughts Inventory (CTI) accurately discriminated between clients (those seeking career services) and non-clients, with clients always indicating more negative or irrational career thoughts. In all, the above stated studies suggest a relationship between irrational career thoughts and career decision which, in turn, interfere with the capacity for effective career problem-solving and decision-making. Career development and cognitive reframe therapy are designed to help identify and address irrational career

thoughts which are not only theoretically relevant to career planning, but also practical in their application (Peterson, Sampson & Reardon, 1991). Classes in career development usually have self-exploration and reflection built into their design and could contribute to developing self-confidence in student.

Career development therapy has been observed to have positive effect on students in general (Folsom & Reardon, 2000; Whiston, Sexton & Lasoff, 1998). Career development therapy had resulted in reduction of negative traits, including career indecision (Johnson, Nichols, Buboltz & Riedesel, 2002; Peng, 2001), irrational career thoughts (Reed, Reardon, Lenz & Leierer, 2001), as well as increases in positive traits such as career decidedness (Johnson, Nichols, Buboltz & Riedesel 2002). In addition, Folsom, Peterson, Reardon and Mann (2002) observed that students who completed an undergraduate career planning course had higher graduation rates when compared to the general student population (81% compared with 69%) and graduated with fewer credit hours on average than the general population (110 compared with 132).

People's perception about themselves and their career choice affect their ability to make decisions. Cognitive reframe focuses on actively changing the pre-existing schema underlying automatic thoughts that may hinder performance of a specific task (Kinnier & Krumboltz, 1986). Sampson et al. (1996) suggested that cognitive reframe may be one intervention counsellors can use to assist clients in combating irrational career thoughts. Most adolescents are unaware of the biases, misinformation, and distorted beliefs that they bring to career choice and that these presuppositions can lead to self-defeating and disabling experiences (Krumboltz, 1983). Elliott (1995) noted that negative self-statements can impair a client's ability to utilise occupational information, lead to career indecision, and inappropriate choices. Instruction in reframing, by which students learn to change their irrational thoughts to more functional ones is often an important part of cognitive reframe treatments.

According to Bandura (1977), one of the most effective ways to change cognitions is to change behaviour. Based on this premise, cognitive reframe uses experience to create feedback loops, which challenges irrational thoughts and assumptions and increase positive feelings. The desired outcome of cognitive reframe is increased self-control by enabling more accurate processing of information and interpretation of events. The ultimate goal in cognitive reframe interventions is to teach clients the art of auto-cognitive reframe. Clients are trained to recognise, examine, and modify or refute maladaptive cognitions whenever they emerge in the future.

The positive effect of career development and cognitive reframe therapy has been consistently demonstrated in foreign countries as related in the studies cited above. In Nigeria, these have not been sufficiently done. Therefore, there is the need to investigate if these interventions will be useful so as to inculcate them into our schools' curriculum to help these students make the appropriate career choice as they transit from childhood to adolescence and finally to adulthood.

Although many studies have investigated factors influencing the career decision-making process in adolescence in Nigeria over the years (Adeyemo 1996, 1998, 1999, 2001, 2006; Salami & Onyeacho 1998; Osakinle & Adegoroye, 2008; Osakinle, 2009; Okafor, 2004; Salami 1997, 1999, 2000, 2001, 2005; Kuti 1979; Kolo, 1987), irrational career thought remain a largely understudied field within vocational psychology and career counselling in Nigeria. With this expressed problem, this study experimentally investigates the effectiveness of career development and cognitive reframe therapy on irrational career thoughts of secondary school students. In articulating this research problem, we postulated that there is no significant main effect of treatment on irrational career thoughts of secondary school students. Our assumption from this hypothesis is to experimentally establish the efficacy of CDT and CRT on irrational career thoughts among Nigerian adolescents. Knowing well that we could not cover a large population of adolescents, we limited our investigation to adolescents in Ogun State, Nigeria.

Methodology

Research Design

This study employed a pre-test, post-test and control group quasi-experimental design to investigate the effectiveness of career development and cognitive reframe therapy on irrational career thoughts

among secondary school students. Through this design, we experimentally subjected the adolescents to two interventions (CD and CR).

Sample and Sampling Techniques

The study adopted the multistage and purposive random technique to choose the sample. There are 20 local government areas (LGAS) in Ogun State, Nigeria. Ogun State is one of the 36 states in Nigeria. It is in the Southern part of the country. Ogun State like many states in Nigeria has three senatorial districts (Ogun Central, Ogun East and Ogun West). This is delineated for political representation at the national assembly. Simple random sampling technique was employed to select one L.G.A each from the three senatorial districts and one school each was selected using the ballot system from each of the local governments selected.

Using the Career Thought Inventory by Peterson et al (1996) as the screening instrument, a sample of 96 Senior Secondary One (1) students with irrational career thoughts was purposively selected from three Senior Secondary Schools out of the 272 Senior Secondary Schools in Ogun State (CD Group 32, CR Group 30 and Control 34).

Demographic Information of the 96 participants in the study

Variable	distribution	number	percentage (%)
Gender	Male	48	50%
	Female	48	50%

Research Instruments

The researchers made use of Career Thought Inventory (CTI)

Career Thought Inventory

Career Thought Inventory (CTI) of Sampson et al (1996) is designed to measure irrational career thoughts in career problem-solving and career decision-making. The CTI is based on the Cognitive Information Processing approach (CIP; Peterson, Sampson & Reardon, 1991; Peterson, Sampson, Lenz & Reardon, 2002; Peterson, Sampson, Reardon & Lenz, 1996; Sampson, Reardon, Peterson, & Lenz, 2004) derived from cognitive therapy (Beck, 1976; Beck, Freeman, Davis, 2004; Beck, Rush, Shaw & Emer., 1979), cognitive reframe (Meichenbaum, 1977), and information processing theory (Newell & Simon, 1972). The CTI is a self-administered instrument consisting of 48 negative statements to which individuals respond using a 4-point rating scale ranging from "Strongly Agree" (0) to "Strongly Disagree" (3). Typically, the CTI can be administered in 7 to 15 minutes. The CTI total scores range from 0 to 144 and represents a single global indicator of irrational career thoughts in career problem-solving and decision-making. Higher CTI total scores are indicative of greater levels of irrational career thoughts.

The CTI also yields scores on three construct scales. The 14-item Decision-Making Confusion (DMC) scale reflects an inability to initiate or sustain the decision making process as a result of disabling emotions and/or lack of understanding about the decision making process itself (Sampson et al., 1996). The 10-item Commitment Anxiety (CA) scale reflects and inability to make a commitment to a specific career choice, accompanied by generalised anxiety about the outcome of the decision making process. The 5-item External Conflict (EC) scale reflects an inability to balance the importance of one's self-perceptions with the importance of input from significant others, resulting in a reluctance to assume responsibility for decision-making. A typical example of the items in CTI are : I'm afraid if I try out my chosen occupation, I won't be successful; I can't think of any field of study of occupations that would suit me; I don't know why I can't find a field of study or occupation that seems interesting.

Sampson et al. (1996) reported Cronbach's alpha internal consistency reliabilities of 0.93 to 0.97 for the total score of the CTI, 0.90 to 0.94 for the DMCS (14 items), 0.79 to 0.91 for the CA scale (10 items), and 0.74 to 0.81 for the EC scale (5 items). Test-retest reliability was measured in

secondary school students across four weeks and the reliability was 0.86 for the total CTI score.

Procedures for Treatment Packages

The researchers sought permission through a letter written to the Teaching Service Commission, Ogun State, Nigeria. With permission granted, principals of schools to be used for the experiment were contacted. These schools were visited beforehand to enable the researchers get acquainted with the schools and their environment. The concerned people (principals, teachers and students) were adequately informed of the purpose of the research work and what the participants stand to benefit. Participants were also given consent forms through which permission was sought from their parents.

The study was completed within the school term to avoid time lag. The researchers with the assistance of six research assistance and class teachers in each of the schools used held 90 minutes sessions for each of the experimental groups for seven weeks, while the control group was engaged with their daily school work activities.

The CTI (Sampson et al., 1996a) was administered at the beginning and at the end of treatment sessions as a pretest and posttest instrument to measure participants irrational thoughts. Participants with career thought were enrolled in to the experimental groups. Researchers discussed the concept of irrational career thoughts as well as the impact that irrational thinking has on making a career decision. Students who needed more personalised, one-on-one help in reframing a career statement were offered individual appointments with the researchers and some were referred to the school counsellors.

The intervention sessions are briefed below:

Experimental Group 1: Career Development

The seven sessions covered the following:

Session I: Pre-test administration and general orientation on concept of career development

Session II: Career Development Theories

Session III: irrational career thoughts

Session IV: Identifying personality type, interest, skills, abilities and values

Session V: Relating personal characteristics and career goals to academic majors

Session VI: Creating a customised career action plan

Session VII: Revision of all activities in previous sessions and re-administration of research instruments for post test scores.

Experimental Group 2: Cognitive Reframe

Session I: administration of instrument to obtain pretest scores and general orientation on the concept of cognitive reframe

Session II: Identifying irrational career thoughts

Session III: Cognitive Information Processing Theory in relation to irrational career thoughts

Session IV: Explanation on how to challenge irrational career thoughts

Session V: The CASVE Cycle

Session VI: Creating a plan to act on new, more adaptive thoughts

Session VII: Revision of all activities in previous sessions and re-administration of CTI for post test scores.

Control group

Session 1: Administration of pre-test instrument.

Session 2: Administration of post-test instrument on the 7th week

Data Analysis

Analysis of covariance (ANCOVA) was used to test the research hypothesis to determine the significance of the hypothesis.

Table 1: Analysis of Covariance (ANCOVA)

Source of variation	Sum of Squares	df	Mean Square	f	Sig.
Covariates	11378.963	1	11378.963	76.071	0.000
PRETEST	11378.963	1	11378.963	76.071	0.000
Main Effects	49744.655	2	24872.328	166.278	0.000
TRTGROUP	49744.655	2	24872.328	166.278	0.000
Explained	61123.618	3	20374.539	136.209	0.000
Residual	13761.621	92	149.583		
Total	74885.240	95	788.266		

Table 2: Multiple Classification Analysis

Source of variation	N	Unadjusted	Eta	Adjusted
Beta				
Grand Mean = 48.86		Variation		deviation
<u>Treatment Groups:</u>				
1 Career Development	32	-20.11		-19.21
2 Cognitive Reframe	30	-15.93		-14.97
3 Control	34	32.99		31.29
			.88	.83
Multiple R-Square				.816
Multiple R				.903

Summary of Findings

This study examined the effectiveness of career development and cognitive reframe therapy on the irrational career thoughts of secondary school students in Ogun State, Nigeria. The finding is summarized as follows: there is significant main effect of treatment on dysfunctional career thoughts of secondary school students.

Discussion of Findings

The finding showed that there is a significant main effect of treatment on the irrational career thoughts of participants in experimental groups and that of the control group. This implies that career development and cognitive reframe therapy were effective in reducing irrational career thoughts of secondary school students. The adjusted means of the three groups were 28.75, 32.93 and 80.85 for CDC, CR and control groups respectively. The adjusted means were obtained by summing the grand mean ($x = 48.86$) to the respective adjusted deviations. This shows that the two experimental groups were superior to the control group, while career development was superior to cognitive reframe therapy in reducing irrational career thoughts of secondary school students. With this experimentation, it is safe to infer that students with irrational career thoughts can be reduced if appropriate treatment are used. Career therapy are frequently aimed at exposing students to a various career options and the academic requirements for these, as well as engage them in decision-making processes that can help them choose among different career options. This might be the reason why career development therapy was more effective in reducing career thoughts. The fact that the participants in the treatment groups performed better in the post-test scores than those in control group reveals that the treatment programmes were effective. The finding of this study supports Osborn, Howard and Leierer (2007) study, those students who completed the career planning classes significantly reduced their irrational career thoughts. Also, Johnson and Smouse (1993) reported that career therapy is effective in increasing participants' career decidedness. This shows that if career therapy is well handled, it would reduce irrational career thoughts of students and enhance career decidedness. The findings of this study is also in harmony with that of Ware (1985) who explored the need for a career development classes for upper level college students and affirm that upper-level college students need and can benefit from programmes in career development. A number of studies (Reed, Lenz, Reardon, & Leierer, 2000; Anderson, 1995; Sullivan & Mahalik 2000) have also demonstrated the effectiveness of career development therapy in eliminating irrational career thoughts in areas of decision making confusion, commitment anxiety and external conflict. Our finding also showed that cognitive reframe could reduce irrational career thoughts among senior secondary school adolescents.

Several studies have examined the effectiveness of cognitive reframe in modifying dysfunctional career thoughts (Kinnier & Krumboltz, 1986; Flavell, 1979; Bandura 1977; Paris & Winograd, 1990; Peterson, Sampson, Lenz, & Reardon, 2002). Our findings therefore corroborated what was reported in literature. The ultimate goal in cognitive reframe therapy is to teach clients the art of auto-cognitive reframe. Clients are trained to recognise, examine and modify maladaptive cognitions whenever they emerge. According to Bandura (1977), one of the most effective ways to change cognitions is to change behaviour. Based on this premise, cognitive reframe uses experience to create feedback loops, which challenges irrational thoughts and assumptions and increase positive feelings. Perhaps this is the reason for the effectiveness of this cognitive reframe on irrational career thoughts.

Implication for Policy and Career Development

From our findings, we conclude that career development and cognitive reframe therapy were effective in the reduction of dysfunctional career thoughts among students in secondary schools. Thus introduction of career development would help in a great way in reducing students irrational career thoughts and if the principles of cognitive reframe are properly applied, students would develop well informed career plans. The implication is for curriculum development on career in secondary schools. More than this, the school counselors in Nigeria could also be more proactive in the mean time given the thrusts of the current findings.

As novel as the findings are, they are with some limitations. First, the number of participants was 96. This somehow limited the generalization of the findings to the entire spectrum of adolescents in Senior Secondary Schools. However, the strength of the findings lies in the fact that it is an

experimental study that doesn't require a large population. The study therefore has contributed significantly to the body of knowledge on career development, as this study to the best knowledge of the researchers knowledge is the first study to utilize career development and cognitive reframe therapy in reducing irrational career thoughts in Nigeria.

Conclusion

Based on the findings of the study, the following conclusions were reached:

While career development and cognitive reframe therapy were effective in reduction of irrational career thoughts, career development therapy was more effective. Therefore, an introduction of career development courses into the secondary schools curriculum in Nigeria will help in eliminating students' irrational career thoughts among the students.

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