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The Risk of HIV/AIDS in Multiple and Concurrent Sexual Relationships and Islamic Teachings

Amir Biglarbeigi

Ershad Institute of Higher Education. Iran, Islamic Republic of

Ismail Salami

University of Tehran. Iran, Islamic Republic of

Mohammad Amin Mozaheb

Imam Sadiq (A) University. Iran, Islamic Republic of
mozaheb.ma@gmail.com

ABSTRACT

Multiple and concurrent sexual relationships are prevalent in many parts of the world and in this regard, Muslim communities are no exceptions. Islamic teachings instructing people to be faithful in sexual relationships are of paramount importance in controlling the spread of HIV through multiple and concurrent sexual relationships. However, in Islamic countries, including Iran, Muslims are allowed to have multiple and concurrent sexual partners provided that they make their sexual relationships official as temporary or permanent marriages. Adopting this approach facilitates the detection of individuals and their partners who are engaged in multiple and concurrent sexual relationships and at risk of acquiring HIV/AIDS through sexual encounters. HIV/AIDS activists in Muslim countries could use this opportunity to raise the awareness of Muslims who are involved in such relationships and lower the risk of acquiring the virus. The authors of the current study asked one of the official marriage/divorce offices based in Tehran to distribute pamphlets regarding HIV/AIDS testing among those who wished to register their sexual encounters within the boundaries of a temporary marriage. 80 percent of participants in this study were encouraged to do an HIV test before having any sexual encounters in temporary marriage. Taking this measure potentially reduces the increasing rate of HIV/AIDS in Muslims.

Keywords: HIV/AIDS, Marriage, Islam, Health, Iran,

HIV STATUS IN THE MUSLIM COUNTRIES

An important health issue currently affecting many individuals' lives is the HIV/AIDS epidemic. Over 25 million men and women have died of AIDS since 1981. In Africa more than 14 million AIDS orphans live (UNAIDS, 2008). In the following years, HIV/AIDS threatens more countries including the Muslim world which consists of more than 50 countries or some 2 billion people who live in different continents. In other words, "from Albania and Turkey in Europe, across countries bordering the Sahara in Northern Africa, and through the Persian Gulf and South Asia to Malaysia and Indonesia in the east, the Muslim world is home to over one and half billion people" (Kelley and Eberstadt 2005, p.5). The prevalence of HIV is relatively high in many Muslim countries. As UNAIDS (2006) reports, the rates of HIV are on a rise in many Muslim countries including Iran, Libya, and Morocco. Despite this fact, determining the exact rate of HIV-positive Muslims is extremely difficult in the case of Muslim countries, given that HIV

statistics is not accurate and surveillance is done within a limited range in many Islamic countries (International HIV Fund, 2012).

A number of measures have been taken to curb the high incidence of HIV/AIDS in many countries. Avoiding unprotected sex, abstaining from sex, and raising public awareness of the HIV/AIDS epidemic through sex education programs are possible solutions proposed by many countries (UNAIDS, 1999). While avoidance of unprotected sex and sex education programs are effective for curbing the HIV/AIDS epidemic, in the case of Muslim communities, religious beliefs instructing people to be faithful in sexual relationships is an additional preventative measure for containing the spread of HIV through sexual encounters. In other terms, Islam prohibits a number of behaviours, including adultery, sexual intercourse outside marriage, and homosexuality for people living in the same society. Considering the above behaviours which are banned in Islam, one can regard Islamic teachings as preventive tools while looking at AIDS.

In Islam, family plays a critical role and it is the building block of society. Family in Islam “maintains protection of morals, provides emotional stability, love, kindness as well as social and economic security” (Wasi and Ahmed, 2012, p.2). It is because of these reasons that Prophet Mohammad (PBUH) has instructed that “the best Muslim is the one who is best to his family” (Wasi and Ahmed, 2012, p.2). Islam condemns pre-marital relations, but based on Islamic teaching, legitimate marriage can complete one’s faith as Allah highlighted the importance of the issue in the Qur’an “Among His signs is that He has created spouses for you among yourselves so that you may dwell in tranquillity with them, and He has planted love and mercy between you; in that are signs for people who reflect” [30:21].

There are a number of verses in the Holy Qur’an with regard to condemnation of pre-marital and extra-marital relations: “Say to the believing men that they cast down their looks and guard their sexual organs; that is purer for them, surely Allah is aware of what they do. And say to the believing women that they cast down their looks and guard their sexual organs” [24:30-1]. “If two persons among you are guilty of lewdness, punish them both. If they repent and amend, leave them alone” [4:16]. “Nor come nigh to adultery, for it is an indecent deed and an evil way” [17:32]. Additionally, the Holy Qur’an strictly condemns homosexuality as these verses highlight the issue: “We also (sent) Lut: He said to his people ‘Do ye commit lewdness such as no people in creation (ever) committed before you? For ye practice your lusts on men in preference to women: ye are indeed a people transgressing bounds’. And the answer of his people was no other than that they said: “Turn them out of your town, surely they are a people who seek to purify (themselves)” [7:80-82]. “Would ye really approach men in your lusts rather than women? Nay, you are a people who act ignorantly!” [27:55].

There are also a number of practical studies with regard to the role of Islam in preventing the HIV/AIDS in Muslim communities. According to a seminal paper by Talbott (2007), the amount of Muslim people in a country is negatively correlated to the number of people who acquire HIV/AIDS infection. The author utilized cross country regression analysis of 77 countries to analyze other correlates with HIV prevalence data which vary more than 500-fold from .06% in Hungary to 33.4% in Swaziland. Talbott (2007) summarized his paper in the following way “Based on cross-country linear and multiple regressions using newly gathered data from UNAIDS, the number of female commercial sex workers as a percentage of the female adult population is robustly positively correlated with countrywide HIV/AIDS prevalence levels. Confirming earlier studies, female illiteracy levels, gender illiteracy differences and income inequality within countries are also significantly positively correlated with HIV/AIDS levels. Muslims as a percentage of the population, itself highly correlated with country circumcision

rates and previously found to be negatively correlated with HIV/AIDS prevalence, is insignificant when the percentage of commercial sex workers in a population is included in the analysis" (p.12).

In another study conducted in Harvard University by Gray (2004) it was found that "Muslim custom of circumcision could be considered as an influential factor that has something to do with less HIV/AIDS infection rate among them" (p.14). The study was carried out in 38 sub-Saharan African countries where the author considered religious tenets of Islam and social behaviours that may positively or negatively affect AIDS infections in those countries. He noted that Islamic teaching can be helpful in reducing the risk of HIV as having sex outside of marriage, homosexuality, as well as male circumcisions were identified as practices that help Muslims in having a reduced risk of exposure to HIV.

He went on to say that the results showed consumption of alcohol which is banned in Islam can be considered as a factor in increasing risky sexual behaviour. Furthermore, ritual washing and personal hygiene which are highly credited in Islam can reduce the risk of sexually transmitted diseases (STD) including HIV. Gray (2004) who considered carefully each Islamic tenet that can affect the rate of HIV infection concluded that "adherence to Islamic tenets seem to reduce the risk of HIV transmission."

Nevertheless, Islamic teachings allow Muslims to have multiple and concurrent sexual relationship which may increase the risk of acquiring the HIV virus in Muslim men and women. Additionally, authorities in Muslim countries oblige them to make their sexual relationships official as temporary or permanent marriages. For instance, in Iran, if the moral police catch any Muslim men and women having sexual relationships without registering their marriages, such people may be censored or incarcerated based on Iran's Sharia laws. While this procedure may be perplexing for people in the Western countries, in Islamic countries, the authorities enforce a law that says people must register their sexual history, a move which can decrease the risk of HIV/Aids. Moreover, one can take advantage of this situation in Muslim countries to empower Muslim men and women. The enforcement of marriage legalisation could help many HIV/AIDS activists and agencies to detect Muslims who are engaged in multiple and concurrent relationships and at risk for acquiring HIV/AIDS through sexual encounters. HIV/AIDS activists could approach these people with less difficulty, raise the consciousness level of the people in such relationships regarding the HIV/AIDS epidemic, and encourage them to go for regular HIV tests. While this could be a potential approach to curb the incidence of HIV among Muslims having multiple and concurrent sexual relationships, the best solution would still be to promote those religious teachings that instruct followers to be faithful in their relationships. The number of people infected with HIV through sexual encounters is relatively high. For instance, 'in Africa - where HIV1 can still be transmitted by contaminated blood products...over 90% of HIV1 transmission occurs during sexual intercourse' (Magezi, 2007, p.69). Thus, multiple and concurrent sexual relationships which could increase the incidence of HIV infected people through sexual encounters, as Magezi (2007) asserts, should be contained.

MULTIPLE AND CONCURRENT SEXUAL RELATIONSHIPS AND ISLAM

Religions disapprove having sexual relationships outside marriage. For instance, Christianity teaches sex before marriage is wrong... [because] sex belongs within marriage... sex is a gift of God demanding responsibility, commitment and love' (Fleming, Matthews, Smith, & Worden Lewis, 2003, p.32). In Islam men and women are encouraged to avoid sex before marriage (Lewis & Churchill, 2008), and sexual relationships outside marriage are not permitted under Islam (Casewit, 2007; Lewis & Churchill, 2008; Taylor, 2005). These religious teachings can

help to significantly reduce the spread of HIV/AIDS through sexual encounters. However, despite religious instructions, many young people are still involved in multiple and concurrent sexual relationships (Henderson, 2010).

It is important to note that Islam encourages men and women to fulfil their sexual desires only in the confines of marriage (Lewis & Churchill, 2008). Temporary and permanent marriages are different forms of matrimony allowed in Islam. (Haeri, 1989).

In temporary marriages, the woman is only allowed to have sex with the man she is married to for a certain period of time (Sciolino, 2005). With respect to women in multiple and concurrent relationships, a female can only be married to one male at a time (Buyukcelebi, 2005). One justification for such an instruction can be the fact that, based on the latest findings on HIV, women are at higher risk of becoming infected with HIV during sexual contact as compared to their male counterparts (Quinn & Overbaugh, 2005). As a result, the number of sexual partners for women should be limited. Such Islamic teachings could protect women against the spread of many sexually transmitted diseases, including HIV/AIDS. However, the best solution still appears to be underpinning those Islamic teachings that instruct men and women to be faithful in their sexual relationships.

The HIV/AIDS epidemic has had a significant impact on the lives of individuals, regardless of religion, gender or nationality. Sexual desires encourage many people to engage in high-risk sexual activities with multiple partners. A reliable approach to discovering whether a potential sexual partner has ever been engaged in concurrent partner relationships is to have a record of their sexual partners. As a result, following the enforcement of this law, we can simply find those who are currently involved in concurrent sexual relationships. The HIV/AIDS epidemic is a multifaceted issue. An HIV test cannot detect the infection when someone has been recently exposed to the virus (San Francisco AIDS Foundation, 2010). A clear history of past sexual relationships is a more reliable source for informing us as to a person might have been infected or might be a potential candidate for being HIV positive. However, this approach does not guarantee that people engaged in multiple and concurrent sexual relationships will not acquire the HIV virus through such relationships.

We still need to promote those religious teachings that instruct followers to be faithful in their relationships or to avoid sex before marriage. Nowadays, around the world, HIV/AIDS takes the lives of many individuals on a daily basis. In the case of Muslim countries, the authors of this article believe that we should emphasise on Islamic teachings which always encourage faithfulness in sexual relationships. The following section describes more issues in this regard, paving the way for world people to live better.

TEMPORARY MARRIAGES IN ISLAM

After puberty, Muslims are recommended to marry while monitoring sexual morality in Islam. Having considered the importance of the issue (marriage as a social matter) in Islam, Bertrand Russell (2009, p.107) says, "Great religious leaders, with the exception of Prophet Mohammad (PBUH) and Confucius, if he can be called religious have in general been very indifferent to social and political considerations, and have sought rather to perfect the soul by meditation, discipline and self-denial." There are three options for a Muslim in this regard i.e., temporary abstinence, temporary marriage and permanent marriage.

Financial ability is the prerequisite of marriage; however, in some cases a Muslim does not have the ability to afford a family, hence in this situation the first option is temporary

abstinence, as the Qur'an says "And those who cannot marry should practice restrain (or abstinence) till Allah enriches them out of His bounty." [24:33]

Practicing restrain is not possible for all Muslims, so Islam proposed another option which is temporary marriage. On the basis of Islamic laws, there are two kinds of marriage in Shiite Islam: Permanent (da'im) and temporary (munqati or mut'a). "Even according to Sunni sources, mut'a was allowed in Islam till the early days of the caliphate of 'Umar ibn al-Khattab. It was in the latter period of his rule that 'Umar declared mut'a as haram" (Rizvi, 1990, p.35).

There are some differences between permanent and temporary marriages regarding Islamic laws. In permanent marriage, there are a number of pre-defined obligations and duties for both men and women. For instance, a man is responsible for providing the necessities of life, while a woman without any medical, psychological or religious reasons, is not expected to refuse sexual relations. But in temporary marriage the story is slightly different, since both man and woman can work out their own plans and duties before marriage.

Regarding the importance of marriage in Islam, Quran says: "And among His great Signs is that He created for you mates from among yourselves so that you get tranquillity by them and He has put love and mercy between your (hearts); verily in that are Signs for those who reflect" [Quran 30:21]. Additionally, with regard to sexual relations, the Holy Quran says that "Successful indeed are the believers... those who abstain from sex, except with those joined to them in the marriage bond or the captives whom their right hands possess for (in their case) they are free from blame. But those who go beyond that are transgressors." [Quran 23:1-7]. Last but not least is that, in Islam polygamy and the matter of justice (in dealing with wives) are concepts which should be regarded with vigilant eyes, as Prophet Muhammad [PBUH] said, 'He, who has two wives but does not treat them equally concerning sentiment and financial affairs, will come on the Day of Resurrection handcuffed and bent over, and then he will enter into the Fire' (Reyshahri, 2008, p. 291). In simple terms, Islam says that the first and the best option is permanent marriage. Hence, by emphasizing on this Islamic teaching, we would not endanger Muslims' health.

In Islamic point of view, sexual morality plays a critical role in decreasing social problems and this sexual morality is regarded as one of the most important aspects of living in an Islamic society, hence, Islam stays against free sex. To achieve the above goal, Islam encourages all Muslims to marry after puberty while having no problem with regard to biological, physical and financial aspects.

After an in depth analysis of the different verses in the Holy Qur'an, Rizvi (1990, p. 14) concludes that "(a) marriage is a sign of God's power and blessings; (b) marriage is a highly recommended act of virtue which should not be avoided because of poverty; (c) sexual urge is a creative command of God placed in human nature. After equating sex with Allah's creative command, there can be no room for equating it with guilt, sin or evil".

A CASE STUDY REGARDING TEMPORARY MARRIAGES IN IRAN

In Iran, where Shiite Muslims comprise a substantial majority of the population, temporary marriages have gained substantial government support, particularly after the Islamic Revolution of 1979 (Macuch, 2006). With the advent of the Internet, a number of online dating sites have arisen which promote this type of marriage among the Iranian people. Web sites, including "2hamsan.com" and "aqdha.com" encourage many Iranian youth to legalize their

sexual encounters through temporary marriages. This move is based on the Islamic teachings mentioned above which can shape a healthy society.

The authors of the current study asked one of the official marriage/divorce offices based in Tehran to distribute pamphlets regarding HIV/AIDS testing among those who came to register their sexual encounters within the boundaries of a temporary marriage. 80 percent of participants in this study were encouraged to do an HIV test before having any sexual encounters in temporary marriage. 15 percent of the participants had a sexual encounter less than three months prior to their new temporary marriage. All of these participants postponed their temporary marriage and voluntarily went for an HIV/AIDS test three months after the date of their sexual encounters, since they learned from the distributed pamphlets that HIV test may give false negative results during the window period. We, the authors of this article, propose that HIV activists, authorities and other nongovernmental organizations have the opportunity to inform such people regarding the danger of contracting the HIV virus when they come to register their marriages which is a must in Iran.

CONCLUSION

In conclusion, controlling the HIV/AIDS epidemic among world people, including Muslims, requires the proactive role of every individual. Religious teachings that require followers to be faithful in sexual relationships are of paramount significance. In the case of multiple and concurrent sexual relationships, Muslims are demanded to have their sexual relationships registered as temporary or permanent marriages in many Islamic countries.

It should be noted that a potential approach to curve the incidence of HIV among those having multiple and concurrent sexual relationships, would be to promote those religious teachings that instruct followers to remain faithful in sexual relationships. In the process of reducing the spread of the HIV/AIDS epidemic through sexual encounters, controlling multiple and concurrent sexual relationships requires the proactive roles of society, religion, and health agencies to reduce sexually transmitted diseases, including HIV among people. A good country where Islamic teachings have had positive impacts on people's lives is Iran. In other words, the ouster of the authoritarian regime led by Western-backed Shah Reza Pahlavi and the arrival of the Great Imam Ayatollah Khomeini from his exile in 1979 as well as the emergence of Islamic Revolution had positive impacts on the lives of Iranians (Farzaneh, 2011). Considering the mentioned issues, one can say that the Islamic teachings used as Sharia laws in Iran could help both the people and the government create a productive society where the quick spread of the HIV epidemic can be reined in.

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Popular Music in Audio-Visual Advertising: A Study of the Roles and Functions of Lyrics in TV-Commercials

Tatiana Anisimova

Jönköping International Business School
P.O Box 1026. S-55111 Jönköping. Sweden

Tomas Müllern

Jönköping International Business School
P.O Box 1026. S-55111 Jönköping. Sweden

Tonya Plachkova

Jönköping International Business School
P.O Box 1026. S-55111 Jönköping. Sweden

ABSTRACT

The use of popular songs is one of the most common methods in connecting with the audience in mass advertising. Advertisers are in search for the right melody or a song that can best connect a product and a brand to consumers' aspirations. The extant literature advocates the importance of a match or congruency between the song in the advertisement and a brand to avoid misinterpretation of the advertising message. Based on the analysis of 96 Levi's TV commercials, the current study looked at how lyrics in popular music of TV commercials are used and how they fit with the overall brand message and related elements of the commercial.

Keywords: Popular music, advertising, lyrics, congruency, brand associations.

INTRODUCTION

The use of music in advertising has a long history, and it is viewed as a strong platform for creating moods in advertising (1-2), to tap in on specific subcultures and target groups (3), and to get consumer attention (4). Considering the importance of music in many forms of advertising, and particularly in TV-commercials, it is somewhat surprising that the scholarly interest in music and advertising did not gain momentum until the late 1980s. The predominant research stream has focused on consumer-oriented studies of the affective and behavioral effects of music in advertising. Within this stream the effects of different structural elements of music (e.g. mode, tempo, pitch, rhythm and harmony) on dependent variables such as attitudes, purchase intentions, brand recognition and brand recall have been studied (5-7). The concepts of congruency and fit have attracted a lot of attention, studying fit between ad content and the audio-visual elements and how it is forming consumer perceptions of the commercial and their behavior (8-10).

The marketing literature implies that congruency helps in building a better brand communication with consumers (e.g. 11). Brand communications is viewed as a critical integrative element in managing brand relationships with consumers (12). Brand communication was found to play an important role in creating favorable brand attitudes (e.g. 13) and is a key to 'tangibilize' product and brand perceptions (14). Deciding on effective brand communications represents a major challenge for the marketers, as these are central to

building consumer perception and consumer choices (e.g. 15-16). As consumers continue to bridge and co-develop brands with or without support of firms, their interaction, including their own communication, is becoming crucial to understanding brand communication practices (14).

The current study is motivated by the following observations. Firstly, despite the evidence of the important role music plays in commercials, little is known about what strategies are used to integrate music in commercials. Secondly, little attention has been devoted to how the elements of music, including lyrics, storyline, voice-overs, and text elements are all functioning as a totality in various purchasing and pre-purchasing settings. Thirdly, the previous literature appears to be preoccupied with the importance on building more explicit congruency between the brand or a product and structural elements of music (e.g. mode, tempo, pitch, rhythm and harmony) as a prerequisite of a positive impact on consumers' responses and behavior (e.g. 8, 17-18).

Drawing on research from film studies (19-20) it is argued here that music needs to be viewed as an integrated part of a whole, and that each component is understood as a part of this whole. The different elements of the commercial (brand/product, audio (music, dialogue, voice-over, and sound effects, text and other visual elements) need to be connected and understood as an interacting whole.

Based on the analysis of 96 Levi's Jeans TV commercials, this article analyzes how the lyrics in popular songs are integrated in commercials, and how they interact with other elements in the commercial, such as the storyline, main characters, brand associations and overall brand communications. Levi's Jeans has a history of using popular songs in their commercials. As argued by Moshini (21) the lyrics of a song plays a dramaturgical role in filmic texts, and TV-commercials are just a special case of this. Although filmmakers traditionally have placed music in the background, the "MTV-inspired" makers of TV-series, movies and TV-commercials tend to place the music more in the foreground, and this makes lyrics equally important as other elements such as screen dialogues. This observation opens up for interesting questions on how the lyrics are incorporated in a TV-commercial, to fit with other elements of it.

The purposes of the article are as follows:

- To analyze how lyrics interact with the story line of the commercial, main characters, brand associations, and the product itself.
- To determine if congruency exists between the song, the story line of the commercial, main characters, brand associations, and the product itself
- To assess the role of congruency in the overall brand communications

THEORETICAL FRAMEWORK

A TV-commercial is a complex art object that carries a combination of verbal (ad copy, voice-over and lyrics in music), visual (the story line and other visual components), and sonic (music and other sound effects) features. Vocal music in commercials is, by definition, both verbal and sonic, and it is connected to the visuals in a variety of ways. A central distinction is if the music is in the background or foreground of the commercial, with foreground music playing a more central role in the commercial and more directly enforcing itself on the viewer. A second important distinction is if the music is diegetic or non-diegetic (22-23). Diegetic means music whose source is visible on the screen or whose source is implied to be present by the action of the film, and non-diegetic music is music that is put on top of the commercial and it is not heard by the actors appearing in the video as mood music, coming from a space outside the

story event. In our sample the music is always in the foreground and most of the commercials (around 90%) are non-diegetic.

The inclusion of music in commercials depends to some extent on what type of music is used, for instance if the music is originally written for the commercial or if it is licensed, popular music. In the case of original music the different elements of the music (tempo, mode, lyrics and so on) can be controlled and adapted to the purpose of the single commercial and to the broader campaign. The case with pre-existing, licensed music (what we here refer to as popular music) is different with considerable less control over the music and how it can be incorporated in the commercial. Considering the importance of popular music in advertising (24-25) the use of it in commercials deserves special attention. It is clearly so that using popular songs has a big value in creating attention, building brand loyalty, creating identification with the product and the brand. Less is however known about the intricacies involved in incorporating popular music in the commercial.

A dominant research tradition within the music in advertising area focuses on the fit (or congruency) between music and other elements of TV-commercials, and how it influences dependent variables such as attitude and mood, brand recall and purchase intention (e.g. 8. 26). Park & Young (27) described the role of background music as a peripheral persuasion cue that has a moderating effect on the attitude towards an advertisement. They proposed that the background music indirectly influenced brand attitude through its effect on the consumers' evaluation of the advertisement or their affective feelings for it. A theoretical backbone for the musical fit tradition is the Elaboration Likelihood Model (ELM) which suggests that attitude change appears through either a central route or a peripheral route. Park & Young (27) hypothesized in their article that music affects brand attitudes through the peripheral route, and thus influences attitude indirectly.

Musical fit refers to the link between the music and attributes of a certain product (28-29). Gorn et al (30) found that high congruity between musical genre and product attributes enhanced recall of visual images from the commercial. In a similar way a number of authors found that the use of original music (e.g. jingles) increased recall of the brand. Macinnis & Park (31) defined musical fit as a consumer's subjective perceptions of the music's relevance to the ad message. Zander (32) stated that music has the potential to affect customers beyond putting them in a good mood. Music can, if associated with spoken words, give a notional sharpness which is more effective than speech itself.

Kellaris, Cox & Cox (33) introduced the concept of music-message congruency. It refers to the congruence between nonverbal meanings carried through the music in the commercial and the verbal in the ad copy. A similar idea was put forward by Gorn (30), claiming that the feelings the consumer has for a piece of music transfer to a product when they are paired in an ad. Oakes (34) reviewed and analyzed empirical studies on cognitive and affective responses to music in advertising. He categorized his findings by distinguishing between 10 variants of music/advertising congruity. Score, image, tempo, and timbre congruity were reported to enhance visual recall and led to more positive brand attitudes.

Yeoh & North (29) tested the influence of musical fit on product choice by offering consumers a choice of different products while playing corresponding background music for one of the choices. In line with previous research their results suggest that musical fit may have an impact on product choice if consumers do not have a clear preference for selecting one product over the other.

The musical fit studies give important support to the notion of links between different elements of a commercial. The above summarized studies do not, however, study the specific role of lyrics. The literature on how lyrics are incorporated in commercials is scarce and it only partially describes the variety of ways in which lyrics are connected to the rest of the commercial. Murray & Murray (35) is an early example of a study that pinpointed the functions of lyrics. Lyrics perform a number of functions in a commercial, for instance:

... Creating a sense of relaxation, developing empathy, gaining attention, carrying news, creating imagery, carrying attribute and benefit information, or subtly communicating cultural values (35).

Roehm (6) studied the use of instrumental versus vocal versions of popular music, and the relative effectiveness of each of the two methods in musically presented brand messages (as measured by brand recall). The primary function of lyrics, according to Roehm, was to state the core brand message. Chou & Lien (25) studied the advertising effects of a songs' release period (nostalgia) and the lyrics' relevance to the product. They defined lyrics' relevance as the degree of match between the lyrics and the advertised product, which is a similar connection as both Murray & Murray (35) and Roehm (6) are suggesting. All three of the aforementioned studies (6, 25, 35) hinted at other functions of the lyrics without specifying which. Alpert & Alpert (36) found two main functions for the lyrics in vocal music in advertising. Either the lyrics carried the ad's verbal message and meaning directly, or they did not carry them directly (in the sense of not speaking directly about the product). Unfortunately they did not specify what other functions the lyrics could play if not carrying the ad's message.

It is evident from this literature review that the primary function of lyrics in commercials is proposed to be to carry the meaning of the product, which is in line with the argument from the musical fit and congruency studies. It is here claimed, in contrast to this view, that the lyrics are in fact used in a variety of different ways in commercials. Allan (24) gave support to this view in his study on music placement in prime-time TV advertising. In his set of commercials containing popular music only 28% had some sort of relevance for the advertised product, whereas 91% were linked to the narrative of the commercial.

As opposed to visual identity, whether in the form of a logo or a color scheme that has been a primary focus of both brand owners and their agencies, the role of audio branding, is under-researched and undervalued (37). This article analyze how the lyrics in popular songs are integrated in commercials, and how they interact with the storyline, main characters, brand associations, and other elements in the commercial. Based on the analysis of 96 TV-commercials for one brand (Levi's) a taxonomy is developed of different ways to incorporate lyrics in TV-commercials and their significance for advertising is discussed. It is not argued that one of the ways is more effective than another (this would be a subject for future studies based on our taxonomy). The ambition is very straightforward - to describe the ways in which lyrics are incorporated in a commercial, which puts the focus on the actual design/construction of commercials.

METHODOLOGY

Following the work of Graakjaer & Jantzen (38) this article advocates a more qualitative approach to studying music in advertising, acknowledging the fact that music does not appear in isolation from its inner and outer context. In our case the inner context is the totality of verbal, visual and sonic features of the commercial (36). The inner context is the focus of this article, where an inductive, textual approach is used to develop a taxonomy of how lyrics are

integrated in the commercial in a series of TV-commercials for one brand. The choice of focusing on one brand was deliberate and based on the decision to try to minimize the number of contextual factors. By using only one brand it was avoided having the brand influencing the analysis, and make it easier to generate categories. Differences between the commercials in the sample could then more accurately be attributed to the techniques used for integrating music and lyrics in the commercial, rather than reflecting differences between brands. In line with interpretivist views on music in advertising (39) it is here also argued that a "one-brand approach" makes it easier to reach a deeper understanding of the inner context for the ads. In future research there is, however, a need for testing the categories on a much wider selection of brands.

The methodological approach is inspired by the critical musicology that study music in an audiovisual context (19). In TV-commercials the music appears simultaneously with text units, voice overs, a visual story line and other components, making it an inseparable whole. Additional inspiration for the inductive and textual approach used in this study comes from recent work on the semiotics and hermeneutics of film (23, 40). Hung (41) argues, in a similar vein, for acknowledging semantic properties in music to enrich studies on advertising. An early example of adopting a more textual approach is Scott's (42) study on jingles in advertising. Numerous film studies have shown how non-diegetic film music help advance the dramatic development in the movie. Although the format and context of a TV-commercial is different from a movie, the techniques for analyzing the links between the music and the movie are highly relevant for our purposes. In our case it consists of uncovering the story line of the commercial and noting where in the story line the music and especially the lyrics appear. An example of how this is done in analyzing a TV-commercial is Pekkilä (43).

The data material for this article initially consisted of 125 TV-commercials for Levi's that were collected from various public sources. The selection of commercials gives both a deep and varied picture of how Levi's TV-commercials are constructed. The empirical analysis proceeded in three steps. In the first step an inductive, and explorative analysis was made of a random selection of 20 commercials from the sample. A detailed account of the storyline of each commercial was written and the lyrics were written down verbatim when they appeared in the storyline. Based on the written account of each of the 20 commercials a first, tentative analysis was made on how the lyrics were linked to the commercial. The ambition was to generate categories to describe different ways of linking lyrics to what appears in the commercial. A first selection of 7 categories were generated in this explorative step. It was also decided to include an 8th category with no apparent or loose connection between lyrics and what is seen and heard in the commercial, which was a category that appeared in some of the commercials.

In the second step various measures were taken to substantiate the categories and to make sure they were properly defined. Based on earlier research some support for the categories were found (44), although the general conclusion is that there is a big lack of research on the ways lyrics are incorporated in TV-commercials. In this step a reduction of the number of categories was made from 7 down to 4. 3 additional categories were created covering ads without lyrics, music or only a loose connection between the lyrics and the other elements. Furthermore, a total of 15 of the 125 commercials were excluded from the analysis for various reasons, primarily because artist and/or lyrics could not be identified, leaving us with 110 useful commercials.

In the third step the whole sample of 110 commercials was analyzed and categorized using the 4 substantial categories, and the 3 additional categories (loose connection, no lyrics, and no music). In the total sample of 110 commercials, 96 contained music and 14 had no music which is consistent with previous studies suggesting that 80-90% of all TV-commercials contain music (ref). In the sample of 96 commercials with music, 58 commercials came with lyrics and 38 were instrumental, which is substantially more than the results in Allan (24), where only 14% was classified as popular music (all ads with lyrics in our sample are classified as using popular music, and a number of the instrumental pieces are also popular music). It is clearly a deliberate choice of Levi's to use popular music rather than "needledrop" music.

RESULTS AND DISCUSSION

In this section of the paper the empirical results are presented and discussed. The connections of the lyrics with the other elements of each commercial were examined only within the context of the particular commercial and to the extent they are used in the commercial. There is a main focus in each advertisement where the creative idea has been realized connecting the lyrics with one of the four substantial categories. It is, however, important to notice that most of the analyzed commercials also have one or more secondary foci that serve as supportive surroundings for creating the whole creative story. This specification is needed in order to distinguish one commercial from another and the particular category they belong to. In many cases the connection between the lyrics and the other parts of a commercial contained more than one focus and to avoid that they are classified in two or more categories a clear distinction between the main and secondary focus was made. The classification of each of the commercials was validated in each of the three steps of the steps described above, and the classification was also substantiated by always letting two or more members of the research team give a second opinion on the classification.

In the following table all the categories are displayed together with the main and secondary focus to them and the number of commercials that fall into each category. Below the diagram a description of each of the 4 substantial categories is presented along with 2 examples that include a short description of the story line and the incorporation of the lyrics in a commercial.

Table 1: Summary of the empirical results of the study

Category	Main focus	Secondary focus	Commercials = in total 125
Focus on the emotions	<ul style="list-style-type: none"> emotions/feelings of the character/s in tight relation to what is seen on the screen evoke emotions/feelings in the spectator in tight relation to what is seen on the screen 	<ul style="list-style-type: none"> narrative main character's image relation to the character with the product/brand 	7
Focus on the main character's image	<ul style="list-style-type: none"> main character's image- its features, qualities, behavior, physical appearance, etc. 	<ul style="list-style-type: none"> narrative emotional condition of the character/s relation of the character/s with the product/brand 	7

Focus on the narrative	<ul style="list-style-type: none"> • Narrative 	<ul style="list-style-type: none"> • emotional condition of the character/s • main character's image • relation of the character/s with the product/brand 	16
Focus on the relation of the character's with the brand/product	<ul style="list-style-type: none"> • encourage and appeal for product/brand purchase by suggesting that if the spectator has the brand/product they will be happy, successful, not lonely, beautiful, stylish, etc. • the reckless need of the character/s to have the brand/product • the devotion of the character/s to the brand/product 	<ul style="list-style-type: none"> • narrative • main character's image • emotions/feelings that are not related to the attachment of the character/s to the brand/product 	14
Loose connection			14
No lyrics			38
No music			14
Not categorized- In the commercials from this category the lyrics or/and artist could not be identified.			15

Focus on the emotions

Description: When emotions play a central role in a commercial, lyrics are used to either name the character's emotions or trigger emotions in a spectator that are related to the story shown on the screen. The connection between the lyrics and the story is direct and enhance the emotional aspect of the commercial.

Examples: In a commercial that exemplifies this category lyrics are used as a continuation of the visual part of the story telling. A young couple is getting separated because the man is going to military service and while they are taking their farewell at a bus station the lyrics accompany the story "When a man loves a woman he can't keep his mind on nothing else, he'll trade the world for the good thing he's found...". When she gets home and lies down on a bed crying with the package he gave her before he left the lyrics continue telling his love story "If she is bad he can't see it, she can do no wrong... Turning back on his best friend if he put her down... When a man loves a woman...". The creative approach in this commercial is focusing on the cheerless fact of dividing a couple in love by using lyrics that speak about the strong feelings of the character in order to add dramatic effect to the story.

In other examples of this category the lyrics reveal hidden meanings or emotions. They don't speak directly of what is seen on the screen but rather continue the story further. This is the case with a commercial when a young boy and a girl are helping each other to undress, looking into their eyes and telling how scared they are and that the first time nobody is good. Right before they jump from a pier they are holding each others' hands and the lyrics start "Don't

they love you in mysterious ways, You say yeah but this is now and that was then...". These lines speak about nostalgia and trigger nostalgic emotions in a spectator - emotions that are not shown on the screen but the lyrics bring them as a complementation to the visual part of the commercial.

Focus on the main character's image

Description: When the main focus of a commercial is the main character's image the video mainly shows distinctive features of this image with the aim to trigger associations and the accompanying emotions with them. In this case lyrics are used to build and reinforce the creative idea of focusing the audience's attention to the main character's image.

Examples: In most of the cases within this category the main character is stereotypical and lyrics are used to underline this image which from its side carries strong semantic messages. This usage of lyrics serves as a tool in creating a story to put the focus on the main character's image that evokes subconscious meanings in the audience. An example of such a commercial is a story that shows a "bad guy" released from a prison and a beautiful young woman that comes to pick him up. His image is emphasized even by showing a cockroach at the beginning of the commercial and lyrics summarize everything "I move like a cat, talk like a rat... Sting like a bee... oh babe, I wanna be your man... I'm your toy, your 20th century boy."

Another example is a commercial when the main character enjoys the attention of all women around and the envy of all man. When he appears in the commercial the camera focuses on his body and face – this way of introducing him puts him in a spot light. The lyrics then are used to accompany and underline his image "Now when I was a young boy at the age of five... My mother said I am gonna be gonna be the greatest man alive. But now I am a man way past 21. When I make love to a woman she can't resist. I want you to believe me baby. I had lots of fun. I'm a rollin' stone..."

Focus on the narrative

Description: In this case lyrics are used to describe the story itself or to serve as a storyteller by supporting the visual part of a commercial. Examples of this connection are lyrics that are used as a dialogue between the characters, complement the story line by giving additional information or repeat what is shown on the screen. All in all, lyrics in such connections with a commercial underline the narrative.

Examples: Lyrics serve as an emphasis of the story when they verbalize what is seen on the screen. The perception of the visual part of the story then is stressed and it becomes a central part of the commercial. This is the case with a commercial when a young girl and a man undress each other while their hair styles changes and new layers of clothes appear below. The visuals are very dynamic, everything happens in a fast and passionate way. The tension increases with each new layer of clothes. The lyrics clearly underline the visuals: "Oh, once I had a strange love, a childlike but deranged love, a love that if were bottled it would kill, yes once I had a strange love, a pure but very pained love, a love that burned like fire trough a field, you see I've had some strange love, some good, some bad, some plain love, some so-so love, and c'est la vie...".

Another commercial that exemplifies very well the usage of lyrics in this category is an ad where a young man a woman walk through different surroundings and meet each other at the end of the commercial where it becomes clear that they have walked towards each other the whole time. The lyrics serve as a dialogue between them when a male voice sings: "I keep a

close watch on this heart of mine... I keep the ends out for the tie that binds..." and a female voice answers also with singing "I keep my eyes wide open all the time... Because you're mine, I walk the line..." And the two voices continue together: "I find it very, very easy to be true I find myself alone when each day is through Yes, I'll admit I'm a fool for you because you're mine, I walk the line."

Focus on the relation of the character/s with the brand/product

Description: When the creative idea is to focus on the importance of having a brand/product, lyrics are used as a verbal explanation of the relation between the character/s and the brand/product. They serve as an unambiguous message for the audience of how important/cool/necessary it is to have this brand/product.

Examples: In this category lyrics are used to underline the importance of the brand/product to the main character with the aim that a spectator will recognize himself/herself in it. An example for this is a commercial where the main character enters a night club for the only reason that he wears black Levi's in contrary to most of the people that are not permitted to enter because they are with blue jeans. All women turn after him while he walks inside with self-confidence. Lyrics say: "When the night has come, and the land is dark... And the moon is the only light we'll see... No I won't be afraid... Just as long as you stand, stand by me... And darlin', darlin', stand by me...". In this case the product is the "darling" that encourages the main character to not be afraid just as long as it stays by him.

Another example of this category is a commercial where the main character throws stones at a building's windows and when a young beautiful girl shows he hides himself behind a car. This repeats twice. The visuals suggest that he is trying to reach a girl that he is attracted to or in love with. The real purpose of his actions is revealed when a woman twice his age appears on a window and it looks like they know each other. She opens a room downstairs where he gets his pair of Levi's jeans obviously relieved from the fact that he wears them again on himself. While the story tricks a spectator's mind the lyrics speak about the main character "relation" with the jeans "I never thought I'd miss you half as much as I do... And I never thought I'd feel this way... The way I feel about you... As soon as I wake up Every night, every day I know that it's you I need To take the blues away It must be love, love, love, It must be love, love, love, Nothing more, nothing less Love is the best ..."

Loose connection

Description: Not clear or too vague connection of the lyrics with the other elements of the commercial or no connection at all.

DISCUSSION AND CONCLUSIONS

The main purpose of this article was to analyze how the lyrics in popular music is integrated in commercials, and how they interact with other elements in the commercial, such as the storyline, main characters, brand associations and overall brand communications. The main results of the study should be viewed in relation to the theoretical starting point of this study, the established congruency/fit theory, which suggests a tight fit between the lyrics and the product/brand related message. The four major functions of the lyrics in our sample suggests a broader palette of functions than just enhancing the product message. Our research shows that the lyrics can be instrumental in enhancing a much more varied group of reactions, including both emotions and identification. We know from studies of consumer culture, brand identity and image, but also organizational culture and identity, that processes of emotional bonds and

identity are important markers of belonging and adherence, and we see clearly that the lyrics in our sample tap in on these processes.

The article does not try answer the question of how effective the use of instrumental and/or vocal popular music is in the context of TV-commercials. Based on our analysis, a few observations can, however, be made. As was mentioned above, Levi's pays a lot of attention to the use of popular music, with the lyrics fulfilling important roles in the commercials. Music is clearly more important for Levi's compared to other tools and techniques of the TV commercial. For instance, they rarely use celebrities in Levi's commercials, although there are a handful of exceptions (for instance with Brad Pitt appearing in a commercial). This is somewhat counterintuitive considering the proven effectiveness of using celebrities in commercials (45). The celebrity endorsement literature is connecting to similar cognitive factors as the musical fit literature as reported above. In particular celebrity and brand congruency is a familiar theme in the celebrity endorsement literature (45-46). On the other hand, Levi's not strongly using celebrities in their advertising can be due to potential detrimental effects that the use of celebrities in advertising can cause. These include a 'celebrity vamping', when the endorsing celebrity is too attractive and can draw attention away from the product (47) or possible consumer skepticism about whether or not endorsers really consume the product they endorse (48).

A strong reliance on vocal music has continued in Levi's commercials up to this day, which is an interesting result in comparison to other studies pointing at a decrease in the use of vocal music over time (22, 24). Contrary to earlier results it seems like Levi's have consistently moved in the opposite direction relying to a large extent (more than 80% in our sample) on vocal music, carrying a number of different roles and functions in the commercials.

The four categories of connections between lyrics and the rest of the commercial suggest three principal ways in which the company (or rather the brand) can reach out to their preferred audiences, using three rhetorical strategies. The first way refers to the rhetors duty of *evoking feelings* among the members of the audience, which is used in 7 of the commercials (focus on emotions). The emotional component in music has been acknowledged by a number of scholars studying music in advertising (44). Although the emotional appeal is not directly speaking about the product or the brand, the literature still suggests a spill-over effect to the product/brand by creating a positive mood (31, 49-50). This is also in line with results from the musical fit tradition where music is said to operate indirectly through the peripheral route (9, 36).

A second principal way of reaching out to the audience is through processes of *identification* (focus on the main characters image and focus on the relation of the character/s with the brand/product). In our material this is done in two different ways, either through identifying with the main character or through a more direct identification with the brand/product.

The third rhetorical strategy uses storytelling (focus on the narrative) to connect lyrics to the commercial. This is common strategy used in 16 of the commercials. Advertising in general, and TV-commercials in particular rely, to a growing extent, on storytelling. The importance of this rhetorical strategy is underlined by the growing literature on storytelling in marketing, the so called consumer storytelling theory (51), which in turn reflects the much broader "narrative turn" in the social sciences (52-54).

IMPLICATIONS

Our analysis has several implications. From the analysis, it can be inferred that fit/congruency stretches beyond an explicit link between music and product/brand as the fit in music literature claims (6, 25, 35). We accept that congruency or match between songs and the product sold in the commercial plays an important role in effectiveness of advertising. Music congruency was found to enhance affective responses to advertisements (see 34 for an example). Music consistency across all touch points has also been considered of the keys to building trust and loyalty (37). However, we argue that music and lyrics in the commercial should go beyond merely informing consumers about products but also communicate clear advantages that help to differentiate the brand from the competition and enhance brand equity. As with the development of the cinema, music sounds can offer the next level of communications for a brand (37). Brand communication was previously found to have favorable effects on the development of a trust-based platform between consumers and brands. For example, findings from the Grace and O’Cass (55) and Vazifehdust & Norouzi, (56) studies suggest that brand communications play a pivotal role in establishing consumer expectations, thus influencing satisfaction and brand attitudes. One of the key aims of “audio branding” therefore should be to “plant” a set of brand triggers in consumer minds in the form of music (37).

Therefore, music and lyrics can be utilized as brand triggers that can help in enhancing brand communication and brand knowledge. Furthermore, brand names can reinforce consumer confidence and enhance brand trust. We recommend that future researchers look at these links in their research. Clearly, the intricacies of the process by which consumers evaluate differentiated products create a challenge for brands. Marketers are recommended not to over-rely on the explicit link between the product and the brand and the song and take a more holistic view on the role of music and lyrics as an element enhancing effectiveness of brand communication.

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Unpacking the Black Box of Lexical Inferencing: Briefing the Factors Affecting L2 Learners' Lexical Inferencing

Zahra Mohebbi

Ministry of Education, Ardabil, Iran

Hassan Mohebbi

English Department, Faculty of Foreign Languages

University of Tehran, Tehran, Iran

hassanmohebbi@ut.ac.ir

ABSTRACT

Lexical inferencing (LIF) is one of the major strategies which second language (L2) learners resort to in performing reading tasks and L2 vocabulary learning. However, the majority of L2 learners are not able to make accurate LIF due to different factors which have effect on an L2 learner's ability of successful LIF. The present paper aims at unpacking the black box of LIF. Therefore, this study briefs the factors which play key roles in LIF, in particular reader- and text-based factors. Reader-based factors include L2 proficiency, L2 vocabulary knowledge, paying attention to details, cognitive and mental effort of L2 learners, L2 grammar knowledge, and background knowledge. Moreover, text-based factors are Word characteristics, text characteristics, the presence of contextual clues, and topic familiarity. Additionally, the implications and suggestions for future L2 research are discussed in detail.

Key Words: L2 vocabulary learning; Reading comprehension; Lexical inferencing

INTRODUCTION

In recent years, there has been a growing interest in second language (L2) vocabulary learning. A considerable body of L2 research exists on the effectiveness of various teaching and learning methods of L2 vocabulary than there was twenty years ago (Nation, 2011). L2 vocabulary learning is of particular interest because misinterpretations of lexical items are key elements in global errors that restrain communication (Crossley et al., 2009). Given vocabulary learning as a fundamental task in second language acquisition (SLA), Zhang and Li (2011) argue that SLA skills, namely speaking, reading, listening, and writing all build on L2 learners' lexical repertoire.

In a recent study, Schmitt et al. (2011) came to this conclusion that for comprehending a text, L2 learners are required to know 98 percent of its lexical items. The results of the study conducted by Prichard and Matsumoto (2011) indicated that even participants who knew 90-95 percent of lexical items of the text had difficulty comprehending the text. Laufer and Ravenhorst-Kalovski (2010) suggest an optimal L2 vocabulary threshold, which is mastering 8000 word families which results in 98 percent coverage of lexical items of texts. Learning such a large number of lexical items is one of the greatest hurdles which L2 learners encounter in SLA (Schmitt, 2010). This bulk of vocabulary cannot be taught directly. As Nation (1982) asserts, the majority of L2 vocabulary learning is indirect. In fact, incidental vocabulary learning is the main vehicle for learning new lexical items. Kim (2011) argues that L2 teachers are fully aware of the difficulty of mastering vast numbers of L2 vocabulary learning, but might

not know how effectively assist L2 learners in this endeavor. Hence, from a pedagogical point of view, Kim underscores the need for SLA research that helps to identify the types of learning task that provide optimal opportunities for L2 vocabulary learning. For meeting this need, i.e., learning a large number of new lexical items, L2 learners should be exposed to a great amount of reading. It is generally accepted that L2 reading is the primary way that L2 learners can resort to it beyond the classroom to expand their lexical repertoire (Schmitt et al., 2011). It is clear that in reading a text, L2 learners come up with some words they do not know, which lead them to frustration and it hampers comprehension. lexical inferencing (LIF) is one of the major strategies which L2 learners fall back on when they encounter unfamiliar words during reading (e.g., de Bot et al., 1997; Deschambault, 2011; Na & Nation, 1985; Paribakht, 2004, 2005; Schmitt, 2008; Wesche & Paribakht, 2010). Importantly, Wesche and Paribakht (2010) claim that LIF is the only tool which L2 learners might have recourse to facing unknown lexical items. LIF is defined as making informed guesses about the meaning of an unknown word during reading comprehension on the basis of linguistic and non-linguistic cues and different aspects of the learner's knowledge at hand (Qian, 2005). LIF, hence, is a cognitive strategy through which an L2 learner employs contextual cues and his or her background knowledge to infer the meaning of an unknown word in a text (Wesche & Paribakht, 2010).

However, LIF is not simply a straightforward process, but there are reader-based and text-based factors which affect the success of LIF. Consequently, the rate of successful LIF is not significant and L2 learners often make erroneous LIF. In the present paper, we elaborate on the factors which play key roles in L2 learners' ability to accomplish successful LIF. Furthermore, we offer some new venues of L2 research in this field which might shed light on enhancing the rate of effective LIF in L2 reading tasks.

Taxonomies of L2 learners' knowledge sources in LIF

Wesche and Paribakht (2010) (Table 1) presented a taxonomy which summarizes all the knowledge sources in carrying out LIF. The taxonomy is on the basis of word, sentence, and discourse and the fourth major category is the non-linguistic knowledge.

Factors Affecting the Success of LIF

Success or failure in reading comprehension is affected by specific reader characteristics, text properties, and the context in which reading takes place (Kendeou et al., 2011). L2 reading is a complex cognitive activity, which involves simultaneous linguistic processing such as pattern recognition, letter identification, lexical access, concept activation, syntactic analysis, propositional encoding, sentence comprehension, and intersentence integration, as well as activating prior knowledge, storing information, and monitoring comprehension (Pulido, 2007b). As already highlighted, the variables which play key roles in LIF might be classified as reader-based variables and text-based variables. In this section, we turn to these variables brief them.

Reader-based Variables

L2 proficiency

Mostly, L2 learners at different L2 proficiency levels encounter words which seem unfamiliar. Therefore, they need to be equipped with effective strategies, in particular LIF to decode the meaning of an unfamiliar lexical item. SLA research carried out in this vein has reported that beginning and advanced learners resort to LIF more than intermediate learners (Barnett, 1989, as cited in Kaivanpanah & Alavi, 2008b). As Haastrup (1991, as cited in Wesche and Paribakht, 2010) argued, it seems to be a threshold level of proficiency that L2 learners ought to reach first before they can employ effective LIF procedures.

Table1: Wesche and Paribakht trilingual study taxonomy of knowledge source use in L1 and L2 LIF

Linguistic Sources
<p>L2-based sources</p> <ul style="list-style-type: none"> ✓ Word knowledge <ul style="list-style-type: none"> • Word Association: Association of the targeted word with another familiar word or a network of words. • Word Collocation: Knowledge of words that frequently occur with the targeted word. • Word Morphology: Morphological analysis of the targeted word based on knowledge of grammatical inflections, stem, and affixes. • Word Form (written): Knowledge of formal (orthographic or phonetic) similarity between the targeted word, or a part of it, and another word and mistaking the targeted word for another word resembling it. ✓ Sentence Knowledge <ul style="list-style-type: none"> • Sentence Meaning: The meaning of part or all of the sentence containing the targeted word. • Sentence Grammar: Knowledge of the syntactic properties of the target word, its speech part, and word order constraints. • Punctuation: knowledge of rules of punctuation and their significance. ✓ Discourse Knowledge <ul style="list-style-type: none"> • Discourse Meaning: the perceived general meaning of the text and sentences surrounding the targeted word (i.e. beyond the immediate sentence that contains the targeted word). • Formal Schemata: Knowledge of the macro structure of the text, text types, and discourse patterns and organization. • Text Style & Register: Knowledge of stylistic and register variations in word choice. <p>L1-based sources</p> <ul style="list-style-type: none"> • L1 Collocation: knowledge of words in L1 that have collocational relationship with the L1 equivalent of the target word, assuming that the same relationship exists in the targeted language. • L1 Word Form: Knowledge of formal (orthographic or phonetic) similarity between the targeted word or part of it and a L1 word.
Non-linguistic Sources
<ul style="list-style-type: none"> • World Knowledge: Non-linguistic knowledge, including knowledge of the topic of the text and other related background knowledge.

L2 vocabulary knowledge

As discussed earlier, L2 learners are required to master at least 98 percent of a text's lexical items to carry out L2 reading comprehension tasks successfully. Therefore, learners' lexical repertoire has an effect on the success of LIF in reading tasks (Kaivanpanah & Soltani Moghaddam, 2012; Nassaji, 2003; Nassaji 2004). In fact, most of time L2 learners are not able to this satisfactory point, so relying on learners' L2 vocabulary knowledge does not stand to reason.

Attention to details

For a successful LIF, L2 learners should focus on details to infer the meaning of an unknown word from a text. As L2 teachers, we have witnessed that L2 learners avoid putting enough energy on decoding the texts and LIF. It is worth noting here, high analytic ability learners might outperform low analytic ability learners in LIF.

Cognitive and mental effort

L2 Learners' cognitive and mental effort might influence the success of LIF. According to the involvement load hypothesis (Hulstijn & Laufer, 2001) LIF and L2 vocabulary learning depends on the amount of involvement in processing these lexical items. Pulido (2003) rightly stressed

that L2 research indicated that easily inferred words might not lead to deep learning due to the lack of a need to pay enough attention to the new words.

L2 grammar knowledge

L2 grammar knowledge plays a crucial role in SLA. It also exerts an influence on LIF. The findings of the study conducted by Paribakht (2004) revealed that L2 learners often employ their L2 grammar knowledge in LIF. Similarly, Kaivanpanah and Alavi (2008a) emphasized that L2 grammar knowledge exerts a significant impact on LIF.

World knowledge/background knowledge

L2 learners might take advantage of their background knowledge to make accurate LIF. Background knowledge is argued to be the first important facilitative factor in L2 reading (Hauptman, 2000). Top-down processes in L2 reading and LIF imply that L2 learners might elaborate the text in their minds and incorporate the extracted meaning into their own knowledge and view of the world, their knowledge structures, and their own schemata (Macaro & Erler, 2008). The findings of SLA research with respect to L2 learners' background knowledge has made clear its positive effect on L2 reading comprehension (Lesser, 2007). Background knowledge, brought by the L2 reader to the text, interacts with text information to foster comprehension and LIF and aids subsequent recall; text information that is consistent with L2 learner's background knowledge might be easier than information which is unfamiliar (Burgoyne, 2011). Pulido (2007b) concludes "in sum, the construction of a coherent mental representation of a text involves the interaction between explicitly stated textual information and background knowledge." (p. 185)

Text-based Variables

Word characteristics

Nation (2001, as cited in Schmitt, 2010) summarizes what is involved in knowing a word. According to him, knowing a word involves form (spoken, written, word parts), meaning (form and meaning, concept and referents, and associations) and use (grammatical functions, collocations, and constraints on use such as register and frequency). Learning a new lexical item involves an ongoing elaboration of knowledge about that lexical item itself and the ability to employ it (Wesche & Paribakht, 2000). Therefore, as L2 learners master different aspects of a lexical item, they are more likely to come up with accurate LIF.

Text characteristics

The level of text difficulty has an impact on driving the meaning of an unknown word. There should be a balance between an L2 learner's proficiency and a text's difficulty. Use of less frequent, specialized, and abstract lexical items, the amount of relativization/embedding, and sentence length are just some of the crucial factors that make texts difficult (Kaivanpanah & Alavi, 2008b).

The presence of contextual clues

The presence of clear linguistic and semantic clues is of primary importance in facilitating successful LIF (Kaivanpanah & Alavi, 2008b). Sternberg and Powell (1983, as cited in Bengelil & Paribakht, 2004) discuss the mediating variables for each context that determine how efficiently L2 learner would be able to take advantage of available/accessible contextual cues. They touch upon the external context, i.e., context beyond the lexicon itself, the meaning of an unknown lexical item is more likely to be driven if it occurs several times in a different contexts within the text, if it is a key word, and if the context provides sufficient cues. Also, they discuss the internal context, namely the lexical item itself, unknown lexical items in the text that can be analyzed into perceivable morphemes might enhance the possibility of successful LIF based on

morphology. Frantzen (2003) states that L2 learners should be advised to have a rational skepticism with respect to dependability of contexts due to the fact that they can imply a variety of meanings.

Topic familiarity

If the topic of a text given is unfamiliar, abstract, or too technical, L2 learners might face difficulty in performing LIF (Kaivanpanah & Alavi, 2008b; Pulido, 2007a). In contrast, a text that is in the domain of an L2 learner's familiar topic would be much easier.

CONCLUDING REMARKS

It is imperative to stress that LIF, as a major strategy in L2 reading and vocabulary learning, might not be undermined due to L2 learners' insignificant rate of successful LIF. To date, the findings of L2 research investigating different aspects of LIF endorse that L2 learners go under a difficult experience in carrying out LIF because of the different factors which play crucial roles in LIF. Wesche and Paribakht (2010) underscored the fact that LIF is a demanding task which L2 learners need to perform. Hence, L2 researchers need to examine the ways that might enhance LIF.

The present paper aimed at highlighting and briefing factors which have an effect on LIF. Further research is needed to throw more light on the factors might influence the effectiveness of LIF. L2 researchers and practitioners should examine the techniques which might enhance the insignificant rate of successful LIF. To my best knowledge, there is a lack of empirical L2 research, if there is any, to illustrate the effect of collaborative tasks on prompting LIF. In addition, it is imperative to mention that pre-task modeling might be effective in disentangling LIF. It might be assumed that L2 learners might take advantage of LIF pre-task modeling in carrying out successful LIF.

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Having Used Self-Control Increases Criminality

Matt Gailliot

ABSTRACT

Ample work demonstrates that poor self-control is a major contributor to criminality. Other work indicates that self-control is impaired or fatigued following use. Self-control fatigue therefore might increase criminal tendencies. Participants either did or did not use self-control by controlling their attention. They later indicated perceptions of their likelihood to engage in criminal acts (e.g., stealing, buying illegal drugs). Participants who had used (v did not use) self-control indicated a greater perceived likelihood of committing crimes. This effect did not appear attributable to general risk taking, mood or arousal, or socially desirable responding.

Keywords: Self-Control, Socially acceptable, Socially undesirable, Criminality

INTRODUCTION

Crime – including murder, violence, and stealing – is among the largest social ills. It may be reduced, however, by good self-control. Self-control is a capacity that may have evolved on the basis of its fostering better social relationships and accommodation (Baumeister, 2005; Cohen & Spacapan, 1978; Dawkins, 1976; DeWall, Baumeister, Gailliot, & Maner, 2007; DeWall, Baumeister, Stillman, & Gailliot, 2007; Finkel & Campbell, 2001; Finkel et al., 2006; Gailliot et al., 2007; Sherrod & Downs, 1974; Stucke & Baumeister, 2006; Vohs, Baumeister, & Ciarocco, 2005). Crime therefore might arise because criminals temporarily or chronically lack the capacity for effortful self-regulation in the service of others. A large body of evidence indicates that crime is caused by poor self-control (Gottfredson & Hirschi, 1990; Pratt & Cullen, 2000). It is therefore imperative to identify factors that cause poor self-control.

One factor that reduces self-control is having used self-control – that is, self-control fatigue. Seminal work demonstrates that mental fatigue occurs primarily for complex or effortful tasks (Hockey, 1983; Ryan & Warner, 1936). Recent research converges by finding that mental fatigue occurs for effortful self-control, such that self-control is impaired following use (Baumeister, Gailliot, DeWall, & Oaten, 2006; Baumeister, Vohs, & Tice, 2007; Gailliot, 2009g; Muraven & Baumeister, 2000). Self-control fatigue occurs partly because self-control uses a relatively large amount of glucose and can deplete glucose in the bloodstream, thereby reducing glucose to suboptimal levels (DeWall et al., 2008; DeWall, Gailliot, Deckman, & Bushman, 2009; Fairclough & Houston, 2004; Gailliot, 2008, 2009a, 2009b, 2009c, 2009d, 2009e, 2009f; Gailliot et al., 2007; Gailliot & Baumeister, 2007; Gailliot, Hildebrandt, Eckel, & Baumeister, 2009; Gailliot, Peruche, Plant, & Baumeister, 2009; Masicampo & Baumeister, 2008). Likewise, numerous studies link low glucose and metabolic problems to crime (Gailliot & Baumeister, 2007; Gailliot, 2009f; DeWall et al., 2009). Having used self-control therefore should increase criminality (Muraven, Collins, & Neinhaus, 2002; Muraven, Pogarsky, & Shmueli, 2006; Muraven & Shmueli, 2006; Muraven, Collins, Shiffman, & Paty, 2005).

METHOD

Participants first watched a 6-minute video (without sound) of a woman talking, with words appearing in the corner of the screen. Participants randomly assigned to use self-control were

asked to avoid looking at the words instead to focus on the woman's face. Participants randomly assigned to a control condition were asked to watch the video as they would normally, and so they did not use much self-control. Afterward, participants completed manipulation checks and the UWIST Mood Adjective Checklist (Matthews, Jones, & Chamberlain, 1990) as a measure of mood and arousal.

Participants later completed 19 items from the Risk-Taking Behaviors Scale (Weber, Blais, & Betz, 2002). Included were 7 items assessing illegal behavior (e.g., shoplifting, cheating on taxes) and items assessing ethical, gambling, money, and sex risks. Participants were to indicate the perceived likelihood of their engaging in each behavior. Participants also completed 14 items from the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

RESULTS

Manipulation Checks

The manipulation checks indicated that participants followed successfully the instructions during the video task. Participants who controlled their attention reported having looked at the words less often ($M = 2.52$, $SD = .87$) and the woman more often ($M = 6.14$, $SD = .85$) than did participants who watched the video as they would normally (for the words, $M = 5.63$, $SD = 1.64$; for the woman, $M = 4.95$, $SD = 1.81$), $F_s(1, 38) > 7.36$, $ps < .05$.

Likelihood of Illegal Behavior

Participants who controlled their attention indicated a greater likelihood of engaging in illegal behavior ($M = 2.35$, $SD = .91$) than did participants who watched the video as they would normally ($M = 1.76$, $SD = .48$), even when controlling for hedonic tone, tense arousal, energetic arousal, socially desirable responding, and risk taking (ethical, gambling, money, and sex risks), $F_s > 6.39$, $ps < .05$. This suggests that the obtained effect was not due to using self-control having altered mood or arousal, reduced socially desirable responding, or increased risk taking in general (with crime being another form of risk).

Discussion

Past work indicates poor self-control as a main cause of criminality, and that using self-control impairs it later on. Having used self-control therefore might increase susceptibility to criminality. In support of this, participants who used self-control (by controlling their attention while watching a video) perceived themselves as being more likely to commit criminal acts than did participants who had not used self-control.

One avenue toward reducing crime should be reducing susceptibility to self-control fatigue. This is a challenging task, as modern life teems with regulatory threats and challenges. Evidence indicates that regular self-control exercise can improve self-control stamina and reduce susceptibility to fatigue (Gailliot, 2008; Gailliot, Plant, Butz, & Baumeister, 2007; Muraven, Baumeister, & Tice, 1999; Oaten & Cheng, 2006a, 2006b, 2006c). Self-control exercises therefore might reduce criminality. On the other hand, reducing effortful demands in life might conserve energy (Muraven, Shmueli, & Burkley, 2006; Muraven & Slessareva, 2003) that could be used to resist criminality.

The amount of metabolic energy that can be used is limited (Kleiber, 1961). Energy used for one process – such as reproduction or immune defense – can divert energy away from and impair others (Gailliot et al., 2009). Other metabolic demands therefore might increase criminality. Indeed, at least a few studies link increased criminality to premenstrual syndrome, when metabolites might be preferentially diverted away from the brain and to the ovaries.

Learning seems to be metabolically expensive (Gailliot, 2009d), and so criminality might increase among people with low glucose or metabolic problems partly because they unsuccessfully learn to override criminal tendencies.

The current work suggests self-control fatigue as contributing to crime in the moment. Self-control in many forms – relationship accommodation (Finkel & Campbell, 2001), resisting prejudice (Gailliot, 2009c), higher order cognition (Schmeichel, 2007; Schmeichel, Vohs, & Baumeister, 2003; Schmeichel, Volokhov, & Demaree, 2008), helping (DeWall et al., 2008) – therefore might subsequently increase susceptibility to criminality.

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Race, Crime, Intellectual Performance and Food: Poor Nutrition Contributes to Racial Differences in Violence and SAT Scores

Matt Gailliot

ABSTRACT

Might differential nutrition contribute to racial differences in violent crime and intellectual performance (SAT scores)? Nutritional intake across the 50 states in the US differed by race, such that states with a higher percentage of Whites and a lower percentage of Blacks had poorer nutritional intake. Crime rates and SAT scores also differed by race, such that violent crime rates were higher in states with a lower percentage of Whites and a higher percentage of Blacks, and Whites scored higher and Blacks scored lower on the SAT than did other racial groups. Nutritional intake partially mediated the link between race and violent crime and fully mediated the link between race and SAT performance. These findings suggest that improving the diet of Black citizens may be a promising avenue toward reducing socially problematic racial disparities in crime and school.

Keywords: race differences, crime, nutrition, diet, scholastic performance

INTRODUCTION

Poor Nutrition Contributes to Racial Differences in Violence and SAT Scores. The 1990s “Decade of the Brain” moved research on brain processes to the forefront and has stimulated ongoing advances in understanding how the brain influences behavior. Many psychologists now recognize the importance of incorporating brain processes into their theorizing. The brain, however, does not operate in a vacuum but rather is heavily dependent on the rest of the body. As a highly active and plastic organ, it is extensively dependent on the body to supply it with the nutrients it needs to grow and function. In the short run, it requires and consumes glucose from the bloodstream that originates with the body’s food intake. In the long run, it needs a variety of chemicals that enable it to sustain and increase its powers.

The brain’s dependency on the body raises the possibility that nutrition will affect psychological outcomes. That is, optimal brain functioning may be impaired by either current or prior nutritional deficiencies. In plain terms, failure to eat properly can adversely affect the brain, and in principle these effects could result in undesirable behavioral changes. The present study examined racial differences in behavior as a function of nutrition. Specifically, it compared the violent and criminal behavior, as well as the scholastic performance, of Black and White American citizens. The hypothesis was that differences in nutrition are partly responsible for observed race differences on those behavioral outcomes.

There is general agreement that race differences can be observed in crime and academic performance, but the causes of those differences are much debated and disputed. The fact that African-American citizens commit crimes at a higher rate than White citizens has been variously attributed to their victimization in racial discrimination (Hogan, 1995), their economic hardships and social isolation (Wilson, 1987), family disruption and single parenting (Sampson, 1987), stress (Eitle & Turner, 2003), and behavior genetics (Rushton, 1990, 1995). In a similar vein, their lower performance in school and on tests has been attributed to low

socioeconomic status (Felner et al., 1995), stereotype threat and fear of confirming stereotypes (Steele, 1997), lower innate intelligence (Jensen, 1997), and academic disidentification (Osborne, 1997). We are not undertaking to prove or disprove any of those hypotheses, but we seek to add yet another possible explanation to the debate, namely differences in nutrition. In our egalitarian view, any evidence that nutrition contributes to racial differences would be welcome in the context of moving toward a more hopeful future in which race differences can be reduced or eliminated. Insofar as nutritious food can be made generally available in the United States, nutrition would seem to be much more readily changed than any of the other hypothesized causes. In other words, it would be encouraging to think that race differences in crime and test performance can be reduced by eating better.

Our reasoning is based on the following four points. The first is that there are reliable behavioral differences between Black and White American citizens, as already noted. Second, African-Americans are less well nourished than other Americans, including Whites. For example, Ford and Bowman (1999) found evidence that Blacks consumed less Folate than did Whites.

Third, poor nutrition can impair intellectual performance. The evidence on this appears to be consistent and convincing. Malnourishment during childhood has been found to predict numerous cognitive deficits (e.g., impaired attention) years later (e.g., Grantham-McGregor & Ani, 2001; Liu, Raine, Venables, Dalais, & Mednick, 2003; Lozoff, Jimenez, Hagen, Mollen, & Wolf, 2000), and improved nutritional intake has been found to increase intellectual performance and reduce brain wave abnormalities (Gesch, Hammond, Hampson, Eves, & Crowder, 2002; Schoenthaler, Amos, Eysenck, Peritz, & Yudkin, 1991; Schoenthaler & Bier, 2000; Schoenthaler et al., 1997).

Last, poor nutrition can also contribute to increases in criminal behavior. There is some evidence to support this view. For example, a couple studies have found that dietary changes aimed at decreasing fried and junk foods and increasing vitamins have reduced the violent disciplinary problems among incarcerated criminals (Gesch et al., 2002; Schoenthaler et al., 1997).

Our own interest in this topic arose from our research on self-control. Self-control deficits contribute to crime (Gottfredson & Hirschi, 1990), as well as to poor intellectual performance (Schmeichel, Vohs, & Baumeister, 2003). Self-control appears to involve complex brain processes that consume a relatively high quantity of calories (Gailliot, Baumeister, DeWall, Maner, Plant, & Tice, 2006) and therefore should be most effective in a well-nourished body.

The present investigation was not designed specifically to establish the role of self-control, but that was for us the context and impetus. Based on these four assumptions, we formulated the hypothesis that the poorer nutrition of African-American citizens could contribute to their lower academic performance and higher crime rate than White Americans. To provide preliminary tests of this hypothesis, we gathered data comparing the 50 United States on racial composition, crime, nutrition, and Scholastic Aptitude Test scores. To the extent that the hypothesis was correct, differences (by state) in nutrition should mediate the differences in crime rate and SAT.

METHOD

Nutritional intake data were obtained from the Community Nutrition Mapping Project (CNMP) conducted by the Agricultural Research Service. The CNMP contains average nutritional data for each of the 50 states in the US collected in the Continuing Survey of Food Intakes by Individuals (CSFII) from 1994-1996 that included people of all ages and a supplemental

survey of children 9 years or younger conducted in 1998. The current work examined all variables included in the CNMP that were indicative of nutritional intake, namely the percent of the state population meeting the recommended requirements for Energy Intake, Calcium, Folate, Iron, Magnesium, Niacin, Phosphorus, Protein, Riboflavin, Selenium, Thiamin, Vitamin A (IU), Vitamin A (RE), Vitamin B6, Vitamin C, Vitamin E, Zinc, Copper, Fiber, and Carbohydrates. These variables were averaged to form a single index of nutritional intake quality for each state.

Crime data were from the Statistical Abstract of the US. We analyzed the average number of arrests made during 1994-1996 in each state for violent crimes (murder, aggravated assault, robbery, and forcible rape) and property crimes (burglary, vehicular theft, and theft). Robbery is classified as violent because it means taking things directly from a person, whereas the property crimes are generally committed in the victim's absence.

SAT scores were from the College Board database and included average SAT scores for each state in 1998 (data from 1994-1997 were not available) as a function of race/ethnicity (i.e., American Indian or Alaskan Native, Asian or Pacific Islander, Black, Hispanic, White, or Other).

Demographic data were from the 1994-1996 versions of the Statistical Abstract of the US. Specifically, we included the ethnic/racial distribution (i.e., the percent of Hispanic, White, Black, American Indian/Alaskan Native, and Asian/Pacific Islander populations in each state) and median household income for each state.

RESULTS

As can be seen from Table 1, nutritional intake was significantly related to the incidence of general violent crime and to the individual crimes of murder, aggravated assault, and burglary and to SAT performance. Crime rates were higher and SAT scores lower in states experiencing poorer nourishment. Moreover, these relationships remained relatively unchanged when controlling for median household income, which suggests that the results likely were not attributable to income or poverty. Having established links between nutrition and crime and SAT performance, we examined whether nutrition would account for or mediate racial differences in crime and SAT performance. The requirements for such mediation (Baron & Kenny, 1986) were met only for White and Black populations. Nutritional intake was significantly related to the percentage of the population of Whites, $r(50) = .34$, $p < .001$, and Blacks, $r(50) = -.54$, $p < .001$. Poorer nutrition was found in states with fewer White and more Black citizens. This is consistent with our assumption that Black citizens are on average less well nourished than White ones in today's United States.

Relatively high rates of violent crime were found in states with the lowest proportion of White and the highest proportion of Black citizens. Crucially, controlling for nutritional intake reduced the strength of these relationships (see Table 2). Sobel tests for mediation (that controlled for household income) indicated that nutritional intake significantly mediated the link between violent crime and the percent population of Whites, $z = -2.10$, $p < .05$, and Blacks, $z = 2.31$, $p < .05$. The mediation was partial, consistent with the idea that factors aside from nutrition influence violent crime. Together, these results suggest that violent crime rates might be lower in states with a greater White population because individuals in these states are relatively well nourished, whereas violent crime rates might be higher in states with a greater Black population because individuals in these states are relatively poorly nourished. The race difference in violent crime can be significantly reduced by equalizing the quality of food intake.

We conducted conceptually similar mediational analyses for SAT performance, but because White and Black SAT performance was a within-subjects variable (because the unit of analysis was the state), different analyses were required and a Sobel test could not be performed. Two separate repeated-measures analyses of covariance (ANCOVAs) that controlled for income indicated that Whites ($M = 1092.62$, $SD = 59.04$) scored higher on the SAT than did all other racial/ethnic groups combined ($M = 1014.87$, $SD = 58.00$), $F(1, 48) = 694.91$, $p < .001$, and that Blacks ($M = 909.74$, $SD = 53.90$) scored lower on the SAT than did all other racial/ethnic groups combined ($M = 1052.10$, $SD = 61.70$), $F(1, 48) = 676.73$, $p < .001$. Both of these differences dropped out of the significant range, however, when the analysis controlled for nutritional intake (for Whites, $F = 3.32$, $p = .08$; for Blacks, $F = 2.08$, $p = .16$). To be sure, there remained trends in the same direction, but the drop in F values was substantial, which provides evidence of partial mediation. Thus, differences in nutritional intake accounted for a large part of racial differences in SAT performance.

DISCUSSION

The present findings indicate significant links between nutrition, crime, and SAT performance. Specifically, states having poorer general nutrition were marked by higher crime rates and lower SAT scores. These links do not appear to be due simply to poverty. If poverty were the explanation, then controlling for median household income should have eliminated the significant correlations, but it did not. If anything, the results became stronger when we controlled for income. The correlation between nutrition and robbery rates increased from nonsignificant to significant, and the correlation between nutrition and SAT approximately doubled the percent of variance accounted for, when we controlled for income. Thus, independent of poverty, it appears that nutrition strongly predicts crime and academic test scores.

The effects were mainly found for violent crime rather than property crime. We conducted five analyses involving violent crime rates (murder, aggravated assault, robbery, rape, and the composite), and all except rape showed significant links to nutrition. The link to rape may have failed because the statistics are problematic due to erratic reporting, or it is possible that the motivational basis for rape differs from that of the other violent crimes. In contrast to the generally strong links to violent crime, nutrition mostly failed to predict rates of property crime, with the odd exception of burglary (and burglary was the only variable to drop by a level of significance when income was controlled). One might have predicted the opposite pattern, on the assumption that badly nourished or starving people steal so as to get money to buy food. But that does not appear to be correct.

Perhaps the best way to summarize the first set of results is that poor nutrition contributes mainly to committing crimes against persons rather than crimes against property. Compared to well-fed persons, undernourished persons seem to have a more antagonistic way of treating other people. It is possible that poor nutrition contributes to irritability or in some other way increases aggressive impulses (see Liu, Raine, Venables, & Mednick, 2004). Again, a line of reasoning based on strictly pragmatic concerns might have predicted the opposite, on the basis of hunger leading to property crimes as people seek to gain money to feed themselves and their families, but the data suggest that the primary impact of poor nutrition is on interpersonal relations.

This points to a more complex explanation, such as poor nutrition affecting the brain and thereby reducing self-control, which in turn produces more interpersonal violence (e.g., Gottfredson & Hirschi, 1990).

Race differences were the main focus of this investigation. There was evidence of racial differences. Specifically, states with higher Black and lower White proportions of the population had poorer nutrition, more crime, and lower SAT scores.

Our most important and novel finding was that nutrition partially mediated the behavioural differences. The links between state racial composition and crime were significantly weaker after controlling for nutrition, although they remained significant, and other analyses confirmed partial mediation by nutrition. Put more simply, poor nutrition accounted for part of the link between race and crime.

Turning to the scholastic testing, we found that controlling for nutrition eliminated the racial differences. The initial analyses found that White students performed better than other racial groups and Blacks performed worse on the SAT — but when we controlled for nutrition, these differences diminished to the level of nonsignificant trends.

The present findings are correlational, and so they cannot test causal hypotheses. For example, it is impossible from the present findings to assert whether poor nutrition impairs scholastic performance or whether factors associated with impaired scholastic performance lead to poor dietary habits. However, prior work has indicated a causal role for nutrition (e.g., Gesch et al., 2002; Schoenthaler et al., 1997), which suggests causality. We have also ruled out the most plausible alternative explanation (income) by showing that the findings remained quite strong after controlling for household income. Therefore, the most likely causal explanation is that the relatively poorer nutrition of Black as compared to White citizens contributes to their higher crime rate and lower SAT scores.

Race differences in crime and educational performance have long presented a significant social problem to American society. The present findings offer a note of hope for reducing those differences. Insofar as nutrition contributes to those problematic behavioral differences, they may be more amenable to amelioration than has sometimes been hoped, because nutrition may be easier to improve than many of the other hypothesized causes. In particular, nutrition is something that at-risk families themselves may be able to control and improve more readily than other factors. Meanwhile, both research and social engineering policies should explore whether interventions to improve the nutrition levels of malnourished families can lead to a reduction in crime and improvements in school performance.

At the broadest level, the present findings are consistent with the general move toward a new understanding of mind-body dynamics that is even wider than the important contributions of cognitive neuroscience. Interpersonal behavior in human society depends on brain and psychological processes, which in turn are affected by bodily energy processes that depend on long-term food intake. The present findings offer one small indication that a person's ability to solve mathematical problems, use language effectively, and refrain from committing violent acts against other persons depends in part on the quality of food the person has been eating.

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Table 1

	<u>Nutritional Intake</u>	<u>Nutritional Intake (controlling for income)</u>
Violent Crime	-.34*	-.37**
Murder	-.49**	-.44**
Aggravated assault	-.38**	-.37**
Robbery	-.20	-.32*
Forcible rape	-.14	-.15
Property Crime	-.12	-.13
Burglary	-.38**	-.33*
Vehicular theft	-.09	-.22
Theft	.00	-.01
SAT scores	.33*	.50**

** $p < .01$

* $p < .05$

Table 2

<u>Percent population of</u>	<u>Violent Crime (controlling for income)</u>	<u>Violent Crime (controlling for income and nutrition)</u>
Whites	-.60**	-.53**
Blacks	.62**	.53**

** $p < .01$

* $p < .05$



"Tikkun Atzmi" (Healing the Self)¹ or "Tikkun Olam" (Healing the World)² – Motivation for Teaching in Special Education

Dr. Rivka Hillel Lavian

ABSTRACT

A large body of educational research has discussed the issue of motivation in choosing to become a teacher in mainstream education (Katzin & Shkedi, 2011; Perry & Friedman, 2011), whereas motivation for special education has only been researched in the last decade. Analysis of special education teachers' life-stories in my PhD research (Hillel-Lavian, 2003) found that individual or family differences constituted major motives for majoring in special education. A follow-up research I conducted (Hillel-Lavian, 2013) sought to re-examine this issue through a wide overview of special education student-teachers. The research sought to examine, through life-stories, what motivated teaching students to select special education. The research group included 20 special education students in their last year of studies. The narratives yielded a picture of teachers imbued with motivation, the majority holding a rather personal approach to special education, due to individual and family differences; some were with learning disability, some were new immigrants, some sisters to siblings with special needs. In this article, I will relate to the findings of my research (Hillel-Lavian, 2003, 2013) while using two organizing metaphors: "*Tikkun Atzmi*" (healing the self) and "*Tikkun Olam*" (healing the world). Some of the student teachers came to teaching out of a desire for a corrective experience for themselves after a sense of failure in the mainstream education system, and others came with the intent to change the system, to make it better and more empathetic. This article is not just about special education teachers; it involves thinking about teaching differently. Metaphors can be a way to unlock the ontology and epistemology of teachers' knowledge. Using the novel metaphors of "*Tikkun Atzmi*" (healing the self) and "*Tikkun Olam*" (healing the world), this article invites educators all over the world to participate in a discourse with many voices. And think differently.

INTRODUCTION

A large body of educational research has discussed the issue of motivation in choosing to become a teacher in mainstream education (Katzin & Shkedi, 2011; Perry & Friedman, 2011), whereas this motivation for special education has only been researched in the last decade. Analysis of special education teachers' life-stories in my PhD research (Hillel-Lavian, 2003) found that individual or family differences constituted major motives for majoring in special education. A follow-up research I conducted (Hillel-Lavian, 2013) sought to re-examine this issue through a wide overview of special education student-teachers. The research sought to examine, through life-stories, what motivated teaching students to select special education. The research group included 20 special education students in their last year of studies.

¹ "Tikkun Atzmi" – a key concept in Judaism engaging in the purification of the soul's attributes and healing a person's feelings in order to make him a better person (CHABAD, 2006).

² "Tikkun Olam" – Defending and nurturing human lifestyle – improving and even revolutionizing human life. "Kabbalah" regards each good deed done intentionally as "Tikkun Olam" (CHABAD, 2006).

The narratives yielded a picture of teachers imbued with motivation, the majority holding a rather personal approach to special education, due to individual and family differences; some were with learning disability, some were new immigrants, some sisters to siblings with special needs. This forced them to experience in the early stages of their lives a treatment where they experienced success either through personal responsibility or in the army. They came to teaching with the intent to change the system, to make it better and more empathetic. Some of the participants indicated the influence that significant special education teachers had on them as models of identification.

Some of the student teachers came to teaching out of a desire for a corrective experience for themselves after a sense of failure in the mainstream education system, and others came with the intent to change the system, to make it better and more empathetic.

All the participants recognized in themselves personal traits and abilities which had driven them to pursue this profession such as creativity and flexibility, commitment, patience, sensitivity and empathy. Most of the participants perceived special education as more meaningful than mainstream education, while some of them saw educational studies as a step towards studying various types of therapy.

In this article, I will relate to the findings of my research (Hillel-Lavian, 2003, 2013) while using two organizing metaphors: "*Tikkun Atzmi*" (healing the self) and "*Tikkun Olam*" (healing the world).

The present research is not only concerned with special education teachers in Israel. It is a call to think differently about motivation for teaching and metaphors can be a means of unlocking the ontology and epistemology of teacher's knowledge. As Craig (2005) wrote, "The epistemic role of novel metaphors is unpacked through examining the plotlines of the metaphors, the morals of the metaphors, the freedom of the metaphors and the teacher knowledge implications resident in the live metaphorical utterances" (p. 195). Revealing and developing the teacher's world of knowledge, and finding ways to organize and express that knowledge, is important for improving educational practice. It is also essential for determining the role of teachers in the research dialogue on teachers' thinking, and teaching itself. Metaphors can be an interesting and important tool that facilitates thinking about the personal and professional world of teachers and for describing their professional knowledge as individuals. People of all languages and cultures have a repertoire of images and metaphors they draw on.

A metaphor is based on analogy, imagination and associations between semantic fields. Being a type of analogous thinking, it facilitates verbal and visual processes in a variety of subject matters in general and in education in particular (Keil, 1986; Vosniadou, 1987).

In light of the fact that metaphors encourage thinking, attention and an interpersonal as well as an intra-personal dialogue, and even helps in perceptual change, it is important to use them in the domain of education.

Thinking in metaphors is an integral part of a person's thought and abstraction abilities. It allows for distance from that which is familiar and regarding it as foreign, so as to pave new ways of thinking. The world of metaphors allows for the development of a language of thinking and discourse that is different from those in existence (Lakoff & Johnson, 1980).

Since metaphors encourage thinking, listening and a process of interpersonal and intra-personal dialogue, and often helps change perceptions, it is very important to use them in the field of education. Bringing the teachers' world of knowledge to the surface and finding ways to organize it are both important for improving educational practice and establishing the role of people in the field regarding teachers' thinking and teaching itself. Use of metaphors can be an interesting tool through which it is possible for teachers to think about their personal and professional world and for describing their personal and professional knowledge. A metaphor has the power to create a new reality. We understand reality differently through metaphors and change our behavior due to this understanding. Thinking in metaphors engages more in reconstructing the familiar world and creating new thought provoking models. It allows for exceptional thinking and the examination of options that seem to be less possible. It is an invitation for an open, creative dialogue regarding our thinking and actions (Lakoff & Johnson, 1980).

Research literature refers to three main types of metaphors:

Stock or standard metaphor: this type of metaphor is defined by Newmark (1988, p.108) as "an established metaphor, which in an informal context is an efficient and concise method of covering a physical and/or mental situation both referentially and pragmatically." He also states that stock metaphors are in contrast to dead metaphors.

Dead metaphor is a [metaphor](#) which has lost the original [imagery](#) of its meaning due to extensive, repetitive popular usage. Because dead metaphors have a conventional meaning that differs from the original, they can be understood without knowing their earlier connotation. Dead metaphors are generally the result of a [semantic shift](#) in the evolution of a language.

Conceptual metaphors or novel metaphors provide an organizing framework for various metaphorical expressions (Gibbs, 1994; Lakoff & Johnson, 1980). Lakoff and Johnson (1980, 1999) greatly contributed to establishing the importance of conceptual metaphor as a framework for thinking in language. In recent years many scholars have investigated the original ways in which writers use novel metaphors and question the fundamental frameworks of thinking implicit in conceptual metaphors. In literature, metaphors often convey an entire field of meaning in a concentrated manner. In effect, this is the type of thinking characterized by globalism. The conceptual world is reflected through the metaphor, which can provide an indication of the user's overall conceptual perception and way of relating to reality. In addition, metaphors usually reflect our professional identity. Conceptual metaphors facilitate the abstract description of a dynamic and personal process etched in memory. Thus, metaphoric thought reconstructs the familiar and creates new and thought-provoking examples. It facilitates non-standard thinking as well as an examination of what is less possible. It invites open and creative dialogue about the significance of our practice.

Teachers' narratives have played a considerable role in the research of teaching and teacher education. The narrative approach raises two basic arguments regarding the use of narratives as a tool in the research of teaching and working with teachers. The first argument is that teachers express important aspects of their work via their narratives, which clarify the knowledge they acquire through their activity and practical understanding. The second argument is that the narrative constitutes a conceptual tool through which the work of teaching can be explained (Elbaz- Luwisch, 2002).

A narrative is a story which an individual tells about the events of his/her life and includes perceptions, beliefs and feelings through which his/her identity is revealed. A narrative is a live snapshot of the teller's identity or personality (De Fina, Shifrin & Bamberg, 2007). It helps

us to understand how identity develops and changes, and how these changes shift and alter direction during the course of a lifetime. It is a tool that reveals the tensions between the private person and the environment and society in which he/she lives. In the narrative, the individual forges his/her story in his/her own unique voice and from his/her own particular perspective with regard to everything around him/her (Baddeley & Singer, 2007).

A choice of profession is closely linked to a student's life-story. The life-story connects the narrator's past, present and future and provides life's continuum with meaning beyond the facts, constituting a significant central layer in the construction of one's identity (Rosenberg, Monk and Keinan, 2008). The use of life stories is a reflection of teachers' practice and serves as a mirror for teacher educators, revealing that the process of teaching is actually a years-long journey of reflection (Forrest, Keener and Harkins, 2010).

It appears that teachers' and students' life-stories can serve as tools for examining their perceptions and beliefs, and exposing the motivation that leads them to choosing the teaching profession.

This motivation is directed by one's will. Self-determination theory distinguishes between different types of motivation based on the reasons for action or their goals. The most basic distinction is between intrinsic motivation, which pertains to doing something because it is interesting or enjoyable, and satisfies innate personal needs: self-efficacy, autonomy and belonging, and extrinsic motivation which pertains to doing things because they lead to specific results. According to Cognitive Evaluation Theory (Dec & Ryan, 1985), interpersonal events which contribute to positive feelings can enhance intrinsic motivation for action, since they provide answers for the basic mental need for efficacy. Furthermore, choice and self-guidance enhance intrinsic motivation as they provide a sense of autonomy.

Studies have shown that choosing the teaching profession and developing a career as a teacher are primarily influenced by intrinsic motivation and extrinsic motivation. Intrinsic motivations include altruism or the desire to help children and contribute to society, the desire for interpersonal contact at work and continuing education. In contrast, one of the external motivations, particularly among women, is the convenient work hours that enable women to fulfill their other roles as mothers and wives (Pines Malach, 2011, Hillel-Lavian, 2003).

Selecting a profession is one of the most important decisions influencing one's psychological and social functioning (Court, Merav, & Ornan, 2009). The human desire for meaningful work is an existential need. A strong self-identity is a necessary condition for professional self-fulfillment. Individuals choose a profession or a career to fulfill themselves and to shape their professional identity (Yani-Yaffe, 2000).

The choice of a teaching profession has been found to connect to previous life experiences that had influenced students, such as significant role models who influenced them, significant experiences relating to the field or processes of internalization and identification with teachers who had taught them in the past (Katzin & Shkedi, 2011).

The principal motivation for choosing teaching stems from internal and external factors. The internal factors pertain to the essential attributes of teaching and are the most significant motivation factors in the choice. External factors pertain to goals external to teaching such as remuneration and social status (Katzin & Shkedi, 2011).

The sense of a social mission as a social motivator on the one hand and the fulfillment of needs as a personal motivator, on the other hand, are the main factors in choosing the teaching profession. In the sense of mission one can see the attitudes towards pupils and the attitudes towards society in order to establish a continuity of cultural values and meaning as well as the pupil's attitude towards self (Brenner, Zelkovich & Talker, 2002). Commitment of teachers who emphasize these intrinsic motivating factors is higher than those who relate to extrinsic motivating factors (Katzain & Shkedi, 2011).

Research reveals that **choosing teaching in special education** almost totally stems from intrinsic motivating factors. The characteristic attributes of special education teachers as described in research literature are: great commitment, creativity, flexibility, steadfastness in face of the unexpected, patience, tolerance, sensitivity and empathy towards others and a desire to give, readiness to see work as a challenge and goal, ability and readiness to invest physical, intellectual and emotional effort in hard and complex work (Aboudi-Dangur, 1992; Ronen, 1988).

Teachers in special education come to the profession with a conscious decision, formed over many years, to devote themselves to this emotionally demanding work, which requires the provision of daily assistance to weak and vulnerable members of society (Gavish & Friedman, 2001).

In this article, I will relate to the findings of my research (Hillel-Lavian, 2003, 2013,) while using two organizing metaphors: **"Tikkun Atzmi"** (healing the self) and **"Tikkun Olam"** (healing the world).

"Tikkun Atzmi" is a key concept in Judaism engaging in the purification of the soul's attributes and healing a person's feelings in order to make him/her a better person (Chabad, 2006). Some of the student teachers came to teaching out of a desire for a corrective experience for themselves after a sense of failure in the mainstream education system.

Every day during these four years, from the beginning of my studies to this day, have given me closure: I have coped with negative experiences and fears since my childhood. I have opened old, excruciating wounds and coped with them. It begins with the decision to study in general and goes through the decision to take special education in particular, ending with entering the formal education system, but wearing different shoes. There is no doubt that the "formal" teacher I have known left me disgusted to say the least. And here is my story: a sensitive and bashful girl.. I hardly spoke to adults. A nature girl, animals, sports and a youth movement were the center of my life. At school I found myself "not belonging". I had never been an outstanding student. From a young age I had experienced many difficulties leading to gaps about which no one had known as I had not trusted anyone and I was afraid to expose my weaknesses... the difficulties were accompanied by frustration, hate, lack of confidence and the fear someone might find out...I felt so uncomfortable at school that I remember that if teachers addressed me, my heart would beat so fast that I stopped breathing...gradually I stopped cooperating with teachers and they stopped addressing me...In high school, frustration and lack of self-confidence increased...from my perspective, the teachers had become difficult, unsettling and particularly cruel – they did not respect me and I did not respect them. They did not believe in me, and I did not believe in me either...I had become less and less tolerant towards the system. I tried not to run into them (but they ran into me).I I kept all the insults and snide

remarks to myself (there were many). I fought, graduated high school with a full "Bagrut" certificate and great hate (Ronit).

Ronit describes negative experiences and fears from her primary school days, which increased significantly in high school. She describes herself as a bashful, insecure student in a vicious system. Ronit testifies to her years of study as years of coping and healing, and uses the metaphor of opening old, excruciating wounds and coping with them.

Revital experienced serious loss in her childhood, which caused her to develop abandonment anxiety. She testifies that she chose special education to examine and challenge her to find how much she can contain.

I have always had the feeling of being different, an outsider, because life's events caused me to grow faster than my friends, and I had to cope with things a girl does not dream of, and in addition I have always had the need to know and understand my father's decision. At the same time, I have always been afraid of abandonment... this feeling that I would be abandoned for anything that was not right...when I got my B.A. I took up special education. There, too, I found myself wanting to experience work with difficult populations, probably to test myself, how much I can contain (Revital)

With Sarit, the difficult academic situation led to a crisis, thoughts about dropping out and even depression.

In high school it was already clear – I would not be an outstanding student (today I realize it is more complex). Not once do I think about those years as a waste of time, as you can learn so much in six years, about yourself, about those around you...I first encountered difficulty in writing in high school. It was a motor difficulty. After one sentence it already looked like a different handwriting. I did not have enough time to copy, and moreover, I did not like reading my handwriting (I have never tried to find what the literature says about it). Who knows a girl who does not write beautifully and in an organized manner?? (Copying from the board was a nightmare for me.) I never had time...On the one hand I do not remember anyone ever telling me I was not a good student. On the other hand, my achievements were rather mediocre!!! So what does it say about me? What kind of student am I? This was the first station in the shaping of "I" as a student and in general...failure in exams followed soon enough, and I had to repeat many courses in the summer...then came the crisis, thoughts about quitting, hard feelings, at certain levels perhaps even (for sure) depression (Sarit).

Sivan tells a heartrending story of difficulties she experienced because of an undiagnosed learning difficulty. Her parents, and particularly her father, did not accept her:

My problems began to emerge when I started school. From the outset I had trouble with my studies. I remember myself as a weak student, in fact very weak. Failure followed failure. My father insisted on telling me over and over that when a tree bends, it can't be straightened again. He would say things like, 'You're like the tree. You are already bent, and you can't be straightened.' That tree followed me during my entire school career, and perhaps it's still with me, though in a different form. [...] Even though I never spoke with my father, after around a week he told me that they thought I was retarded or dyslexic and that they wanted to have me tested. Back then the word

'dyslexic' was just another way of saying 'retarded'. At that time people were not aware of learning disabilities... (Sivan).

The narratives indicate that the choice of profession is closely linked to the students' life-stories. The life-story connects the narrator's past, present and future and provides their life's continuum with meaning beyond facts, constituting a significant central factor in the construction of their identities. The students discuss difficulties as school students, lack of understanding on the part of the system and often on the part of parents, a sense of being an "outsider" as a result of which they feel the need to "heal" – "heal" the feelings, "heal" the image, "heal" them. A strong self-identity is a necessary condition for professional self-fulfillment. Individuals choose a profession or a career to fulfill them and to shape their professional identity.

"Tikkun Olam" is defending and nurturing human life – improving and even revolutionizing human life. "Kabbalah" regards each good deed done intentionally as "Tikkun Olam" (CHABAD, 2006). Students choosing to take the path of special education come with the intent to change the system, to make it better and more empathetic.

In time I have come to realize that each negative experience I had in school and the negative interaction with teachers have intensified my sensitivity, my sense of caring and giving to others. I learnt how not to behave...and my faith in myself as a person operating out of my inner truth has only intensified over the years. This learning has enormous value in the way I work with children in all areas, especially in teaching (Ronit).

Ronit, who described her suffering in the education system and the "healing" that took place during her college studies, declares that once she has realized in person how not to behave, she could act upon this understanding. Shosh describes her wish to help and contribute in her work.

I have always been attracted to the different. I have always looked for people who needed help. I remember, in adolescence, in the ballet lessons I loved so much, a blind girl arrived, and the teacher asked who was willing to dance with Michal. I happily volunteered, and so Michal and I danced. We bonded and spent days and nights together. I enjoyed my giving and the privilege of experiencing and enjoying the company of such a special girl (Shosh).

Revital also gathered the strength gained from her experiences as an outsider to help those in need

During my B.A. studies, I participated in a PERACH Tutorial project³ and I felt I was helping a girl who needed attention. I also participated in an additional project where I helped the daughter of shell-shocked father. This girl's life was different on a daily basis from that of her friends. She put me through many trials until she decided she could trust me, but I did not snap and did not give up because I understood her. After all, the instability of her life caused her to make sure people would not abandon her. As I said, I found ways to contribute to her from my experience as an outsider, the feeling

³ PERACH, an acronym in Hebrew for "tutoring project", also means a "flower". PERACH pairs up needy children from underprivileged backgrounds with university students who act as their tutors, giving the child personal attention (often sorely lacking) and serving as a role model.

I am not like everyone else (you have not experienced what I have experienced) and tried to find answers to questions (Revital).

Hadas made a change in career from archeology to teaching and describes her work as rehabilitative

The same attributes required in my work as an archeologist serve me today in my teaching work with children with learning disability and attention deficit disorder. I uncover the children's inner, untouched strengths very gently, where the process is slow and can last a long time, and so I advance them to better coping with those internal and external factors which influence them. I see the child as a part of a whole that is influenced by a variety of internal and external factors (environmental, cultural and so forth). I establish a relationship with the child, built gently over time, and so I manage to expose the genuine core (below the external layer of children defined by the environment as problematic), where the good and healthy basis is found, with the internal strength which exists in each child, and nurture them for positive growth. Additionally, in my work I rehabilitate child's broken pieces of clay jugs, and teach both the child and the environment (such as teachers and parents) ways of more successful coping so that the child can find his or her place in society in our world (Hadas).

Sivan traveled to India with her father's proverb about the crooked tree always in mind. An experience there made her decide that special education would be meaningful for her.

We wandered down a filthy and noisy street in India. All of a sudden a small girl emerged between the cars and came toward us. She was around two years old and as naked as the day she was born. Her hair was wild and unruly. She bent down and kissed my feet, begging for charity. Looking at this girl made me very sad. I thought to myself that if she had been born somewhere else and in different socioeconomic conditions she would be able to grow and develop. I stood there feeling confused and helpless, as if my hands were tied and I had no way whatsoever to help her. She was truly a crooked tree through no fault of her own, and there was no way to straighten her out. I thought about how in Israel as well there are quite a few such trees. That same day when we went back to our room, I told Ayal that I wanted to study special education... (Sivan).

We can see that social contexts which support a sense of self-efficacy, autonomy and belongingness are the grounds for the existence of intrinsic motivation. The PERACH Project, volunteering to dance with a blind girl and other experiences led to a sense of self-efficacy, autonomy and belongingness which led to the decision to study special education. The human desire to work at a meaningful job is an existential need.

According to "Kabbalah", "**Tikkun Atzmi**" precedes "**Tkkun Olam**". The narratives conveyed the distress the interviewees had experienced during their school years and their wish to do something to change that feeling. Teaching in special education allows for development, self-efficacy and autonomy to change, to take a different approach, to act differently, to "heal" and thus have a remedial experience, which provides an opportunity to express personal strength, emotional, intellectual and psychological development and growth.

CONCLUSION

On the global scale, as noted, metaphoric thinking can be used to reconstruct the familiar and create new and thought-provoking examples. The use of metaphors facilitates non-standard thinking and the examination of what is less possible. In addition, it invites open and creative dialogue about the significance of our practice. It should be stressed that the present article is not just about special education teachers in Israel but about thinking differently about teaching as a whole and how metaphors can help us to unlock the ontology and epistemology of teachers' knowledge.

Teachers arrive at special education from different places, from a different motivation. This understanding of the components of his or her identity can explain teaching methods, success, empowerment and growth. The option of taking the experience to a place that provides opportunities for expressing personal strength, emotional, intellectual and psychological development and growth. This is a mutual strength, strength of belongingness, joint empowerment of "I" and the "self" and of "I" and "another". In other words, the process of "*Tikkun Atzmi*" or that of the system - "*Tkkun Olam*", or actually, both "*Tikkun Atzmi*" and "*Tkkun Olam*". One of the ways to ensure the strength and continuity of society is by creating a change in the individuals within it. The change mostly takes place within intra-personal contexts and interpersonal ones

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Sustainable Hausa Design, Culture and Usability: A Reflection on the Art of Northern Nigeria.

Kashim, Isah. Bolaji

Industrial Design Department, The Federal University of Technology
P.M.B 704 Akure, Ondo State, Nigeria.

Ologunwa, Temitope. P

Industrial Design Department, The Federal University of Technology
P.M.B 704 Akure, Ondo State, Nigeria.

Ogunlade B.A

Ladoke Akintola University of Technology
Ogbomosho, Oyo State, Nigeria.

ABSTRACT

The Hausa states were collection of independent city states situated in what became Northern Nigeria. The leadership of the Sokoto caliphate by Usman Dan Fodio led to conquering of the other Hausa states thereby creating a united centralized state with united set of people under the Muslim Fulani Empire. The Northern Nigeria was a British colony from 1900 as a result of 1885 Treaty of Berlin which ceded Northern Nigeria to the British on the basis of their protectorate in Southern Nigeria. The Islamic influence in all the sphere of life of the majority of the people from Northern Nigeria have greatly influence their socio-economic activities with emphasis on how art, design and culture have interplay effectively. The need arose to evaluate the participatory developmental use of design that is broadly recognized and acceptable as universal visual and culture-oriented business conducted across all disciplines from multi-dimensional and multi-directional characters. This paper closely studied the design application from the Northern part of Nigeria with emphasis on culture and Development thesis generating such questions as: does certain cultural trait promote economic development, does economic development still in certain cultural trait and finally if culture and economic development anchored on design concepts are relatively autonomous. Conclusively responsibility of design symbols in the context of visual image producers as well as to day market economy in cultural industries such as printing, multi-media, audio-visual, architecture, visual and perform art, sport, musical instruments advertising and cultural tourism are appraised.

Keywords : Symbols, Culture, Sustainable economy development.

INTRODUCTION

Northern Nigeria is geographically occupies about two third of the total land mass of the country. Most of the Northern Nigerian States belong to the political and religious tradition of the Sokoto Caliphate, a multi – ethnic empire created in the 19th century Islamic reform movement under Othman Dan Fodio. Northern Nigeria extends to include Kogi, Kwara, Benue and Taraba States toward the South. The larger populations of the people are Muslims and they are Hausa by tribe. The North region is politically united as a British colony from 1900. It was a Federal region disbanded in 1967. The strongest influence on the art and design pattern that

cuts across the entire life of the people in the Northern part of Nigeria is Islam while the Southern region was influenced by return of ex slaves (Mainly from Brazil) and colonialism.

Though traditionally designed crafts have not been accorded as much recognition and exposure as the sculpture but Nigeria craftsmen have demonstrated high level of craftsmanship in such crafts as pottery, weaving, carving, Leather work, embroidery, brass work and handcrafted textiles. The Northern Nigeria community favours most of this craft because the basic raw materials are easily available. Some of the best leather in Africa can be sourced in the Northern part of the country (Sokoto, Kano, Bauchi and Borno States). The other factors which affects the distribution and making of craft in this region is religion. It is believed that decorative works are popular because of the predominant religion of Islam which forbids representational art such as found in sculpture. This has given rise to excellent design as applied to most all things that border on the lifestyle of an average Hausa man.

It is a reality that in spite of the above religious base, some of the contemporary art from the North are expressively exaggerated especially on moving Lorries where human being attempt to dare Lion, an unusual figurative representation that is not associated with the core tradition of the Hausa artistic expression.

Conceptual Definition of Design, Culture and Sustainability

Design is the process of taking something from its existing stated and moving it to a preferred state, that is, using applied art to improve aesthetics, ergonomics functionality and usability of a product. The need to solve a particular problem or to make life comfortable brings about the act of designing an object that can make living better. This might also be used to improve the product marketability and production.

Culture has an integral role at sustaining development with complexity that goes along with spiritual, material intellectual and emotional features that include arts, letters, lifestyle, value system, traditions, and beliefs. Therefore, culture is a social dimension of sustainability which retains cultural identity and allows changes to be guided by cultural value of a people. It questions consumption based on lifestyle and decision making processes that are based solely upon economic efficiency.

Design sustainability fundamentally adapts new ethic of living on the planet through equitable and fair distribution of social goods and resources of the people. Moreover, the ability to design an object to proffer solution to challenges being faced by the people of the present age without having an adverse effect on the future, generation brings about the concept of design sustainability. In the past, people have not really consider the future as at the time they design objects that could make life better, and have greatly affect the present generation. The quest to safeguard the future and to make life easier in this present day , has made the trend of research to focus more on design sustainability which could also make life easy for the future generation.

For the purpose of this paper, the effort will be concentrated on the use of designs in the Northern Nigeria that are peculiar to their religion, environment and culture in sustaining activities that resolves around their living styles.

THE NORTHERN NIGERIA CULTURE BEFORE INTRODUCTION OF ISLAM

Culture is referred to as traditional norms and value of particular set of people and Islamic practice on its own happen to be a complete way of life as laid down by the Quran and Hadith

which played a very significant and permanent role in shaping the Hausa culture. As far back as 9th Century A.D, the North African traders have trade contact with the Hausa communities through the Sahara trade which subsequently influences their way of life and culture (Bashir, 1994a). The cultural assimilation is through exchange of literature which preaches against polytheism and adherence to believe in one God. The Hausa had distinct crafts such as blacksmith, pottery, leather works, weaving, and Handcrafted textiles.

The advent of Islamic religion has influence on the material and non-material culture of the Hausa people such as their family system, mode of dressing, floral and representational art motifs, architecture, housing and human habitation, occupation and tradecrafts (Muhammad, 1989). Today, and even tomorrow, Nigeria can still draw from the general stream of the world-wide Islamic civilization.

Influence of Islamic Religion on Art and Design in Northern Nigeria

Islam arrived in Nigeria by the fourteenth century (Bashir, 1994b). In fifteenth century, there were a number of independent Hausa City-States. The arrival of the Fulani people who were a tribe from Senegal moved eastwards along the river Niger and finally settled in Hausaland, culminated into a new era. These people were a tribe from Senegal who moved eastwards along the River Niger and finally settled in Hausaland. Among them were also other types of Fulani whose main aim was to propagate Islam. They settled at the palaces of the big Chiefs on their arrival, and began to preach Islam as it should be practiced. They discovered that the Hausas mixed Islam with lots of paganism through traditional customs, which were contrary to the belief in the oneness and power of Allah. They soon began to pull the attention of many followers who later became a threat to the power of the chiefs. The Fulani were very fervent in their proclamation, reminding the Hausa that Islam must not be mingled with traditional beliefs and customs while the Hausa chiefs were accused of corruption and malpractice. The Jihad of Usman Dan fodio (1754-1817) which declared holy war against the Hausa with their traditional religion gave way to change of traditional leadership that is based on Islamic law. This was to actually influence their way of life generally in the area of dressing, art, and textile craft.

Hausa men are recognized by their elaborate dress. Many wear large, flowing gowns (gare, babban gida) with elaborate embroidery around the neck. They also wear colourful embroidered caps (huluna). Hausa women are distinguished by a wrap-round robe made of colourful cloth with a corresponding blouse, head tie, and shawl. Most of the people became fascinated by the dressing style of Muslims, especially the Arabs and therefore emulated them. Moreover, minority languages gradually gave way to shua Arabic and Kanuri which were mostly used by the Muslim population of the area (Ikime, 1980). Although, in rural area, there were communities of people who do not follow Islam but they are very few. These are the Maguzawa people; they worship nature spirits called bori or iskoki (Koslow, 1995).

Three Dimensional Artworks

The taxonomic system that placed African societies at the lowest living of human development was extended to the visual culture of the continent to have exaggerated proportions of human and animal forms, as "proof" of the primitive nature of human, though this is a deliberate action to distort realism in order to depict abstractive figures. Art is directly connected to the way of life of the people who made them and use them. Vivid example is the Northern part of Nigeria of the Nok, Katsina Ala, Wamba and Jema'a art which work of art can be proud of; that exquisite and sophisticated Nok terracotta created between the second half of the last century B.C and the third century A.D.

The contemporary art of the north is currently witnessing a kind of renaissance that takes awareness of the past and look into the future. The Zaria art school had produced within the Hausa environment works that drew upon African cultural heritage by creating works in a range of media not seen in the traditional art of their fore fathers. Example is the work of Bruce Onabrakpeya on the use of deep etching which add a sculptural quality to his two dimensional prints. Example is the play time done 1973 showing people at play with Hausa architectural building as the background.

ANALYTICAL DESCRIPTION OF THE VARIOUS FORMS OF ARTS AND DESIGN IN NORTHERN NIGERIA

From the late 9th through to the 15th century, the area referred to today as 'Northern Nigeria' has served as a nexus of immense cultural and economic activity. Most of the Northern region was brought together in a single Islamic government at the creation of Sokoto Caliphate in the Jihad (Holy war) of 1804-1808. The complexity of Nigeria today continues to be determined by influences originating in the 19th century jihad which was led by Sheikh Usman Dan Fodio (Angel, 2007). Among the norms and culture of the Hausa people that were being influenced by Islamic religion are in the calligraphic writing of Hausa, the art of wall decoration using geometrical shapes, the craft development, architecture, textile and garment of the people just to mention a few were influenced.

Lines, shapes, geometric and non – geometric are the basic element of design which cannot be ruled out in the northern Nigeria design, due to the influence of Islamic religion. The use of intricate lines and shapes as designs on architecture, crafts and design, textiles and garment and even wall mural as become their identity nationwide. Hausa people are known for the best embroidery on textile and garment, leather work, mural as wall decoration which has the embellishment of lines and shapes as its typical design. This has become part of their culture and they are known for it. Despite the fact that Hausa design is only make use of lines and shapes as its major element of design, the contribution of their products export trade to national economy cannot be over emphasized. Thus, it is pertinent to critically analyze how Islam and Hausa culture has influenced her design cognitive in the various forms of art and design which has contributed to the nation building in the past.

Architecture

For centuries, Hausa master builders have acquired and practiced skillful crafts in building houses for the people and royal inhabitants of the Northern Nigeria. This can be found in cities, towns and villages of Kano, Zaria, and Gumel. The buildings are arranged to suite hierarchical base level in line with culture and social structure. Most of this houses are mud houses with heavy ridig timber, sun dried bricks and thatches. The Northern architecture has a lot of similarities in feature. The Zaria city walls with its eight beautifully designed and decorated magnificent gates remain one of the most impressive monuments among the cities of Northern Nigeria. The Kano city wall of 14km radius of earth structure made in the 14th C provides a security to the growing population. They are made with visible design in combinations of geometric shapes, that is, rectangular and semi circular shapes.

Some of the wall paintings and etching are made with Quranic inscriptions executed in highly developed calligraphic slants, most in Arabic language. The writing makes references to excerpt of a letter written by the second sultan of Sokoto Caliphate, Muhammad Bello, quoting a Quranic verse that translate as to mean: Moral leadership are leadership by example with emphasis on observation of the 5 pillars of Islam (Ochinu, 2008). The palace art command aesthetics, leadership authority and exercise of power. The wall embellishments all

immemorial which links past to present. The palace design compliment political impact of the Emir when he appears in his full regalia on decorated houses during Islamic festival known as Durbar festival.



Fig. 1a Ancient Kano City



Fig.1b Modern Design

Durbar Festival

Durbar of Hawan Sallah as locally called in major northern cities of Kano, Zaria, Daura, Hadeija and Dutse is a royal parade of thousands of men on houses adorned with colourfully rendered garment and regalia. It is a colourful display of culture full of pomp and pageantry which form a spectacular traditional concert and display of traditional African music.

Many part of Northern Nigeria was Islamized and Islamic influence was apparent in the domestic architecture. Because the rulers were Muslims, and more because of the integration of government and religion, there is a close proximity between palace and mosque architecture. Most mosques casting very tall mineral.



Fig. 2 Durbar Festival

Pottery

There are fear that traditional pottery may be dieing as a result of increase use of pipe-borne and potable water and increased competition from industrial products such as tin cans. Inspite of this, Michael Cardew statement still hold true (as the ubiquity of cooking pots and water vessels anywhere will testify nonetheless that pottery-making as a viable, living craft within the Hausa cities of Northern Nigeria). The method of production ranges from mould, coil and pinching techniques excluding the potter's wheel, a recent innovation, which sees extremely limited except for Abuja pottery centre, universities and few specialized organized government projects. The common production technique in the Zaria city is called dinging, the potter, seated on the ground, placed a lump of clay in a smooth, shallow depression and start to form with heavy mallet used in creating a depression to shape the clay lump. Wooden paddle used to form into minimum thickness from outside while the other land is placed inside.

The design application on Hausa pottery is sparse while the potters rely on simplicity and elegance of form to convey the beauty of the piece. The potters decorate pots and bowls with fine texture. The motifs are informed of band of small impression going round the pot, achieved by use of roulette. Incisions are also used but not very elaborate. The pots are fused at low temperature done in fairly large quantity using wood and grasses laid out on the ground. The designs are also created by the dark carbon during firing as against the terracotta colour of the pots after firing.

Late ladi Kwali is a renowned potter, skilled in traditional methods and techniques of pottery in western method. One of the 20th century Nigerian artist who derived her decorative designs from folklore of the ethnic groups in northern part of Nigeria. The engraved decorative designs on her products are from symbolic motifs which are representative of characters from mythical folklores and creative such as Lizards, spiders, crocodiles. She uses modern glazes to embellish her pots instead of traditional herbal method. Her virtuoso skill in pottery and decoration equally won her a honorary doctorate of the Ahmadu Bello University, Zaria and the Nigeria National Merit Award. Notably, her memory has now been preserved in one of the new Nigerian twenty naira currency note (N20).



Fig. 3a Ladi Kwali; A renowned potter



Fig. 3b Dr. Ladi Kwali Making Incised Design on Her Pot.

Source: Saidu Na'Allah (2001).



Fig. 3c A typical Northern Nigeria Design on Ceramic Plate

Textile Design

The Hausa people of the Northern have long been known for the production of voluminous robes known as babban riga which are hand embroidered in a range of embroidery stitches materials (mainly cotton and silk), styles and design (Fannami and Muhammed, 2012). It was initially men occupation but recently women too have taken it up around Zaria city the past 20 years. Though the men are now turning to machine embroidery on robes and Kaftans. This hand woven embroidery are referred to as “dinkin hannu”. The textile garment and caps serves as an undeniable artistic social, cultural, historical and religious medium of preservation and transmission of the peoples’ culture and consciousness. Variety of design using these garments that are designed in variety of styles are dynamic among the Kanuri culture. Some of the robes are designed using dye to create an illusion of double colours, some sewn in with two different colours materials to create impression of double gown with single neck.

In the fields of dyed textiles, the men are actively engaged in it, especially at Kano. The dyeing of the fabrics are been done in open dye-pits, which some of the pits are two to three meters deep. A local leaf from which an indigo colours is extracted is employed as colouring agent which is used to create various design effect and patterns.



Fig. 4 Kulwu Dawungasho derive its name from style of dying

Sourced: Fannami et al (2012).

Glass Beads

They are made of clay and silicon at Bida and locally known as bikini. They are worn by the people to indicate a person's wealth and social ranking. They are a time given as token of affection and to show love. They are used as mode of beautification. They are produced from special domed furnaces built into a pit underneath was placed in local sand which is rich in iron element giving the glass its deep red colours.

To produce the desired colours of beads, Nupe bead makers melt coloured glass gotten from bottles or other glass beads in a small wood burning clay furnace. They made use iron rods to form the molten glass into various shapes, and decorate their beads with a distinct white pattern by winding their trail of white melted glass around the bead while it is still hot. The fluid colours of the irregularly glass beads convey designs that gives sense of quality.



Fig. 5 Glass Beads from Bida, Nigeria

Sourced: <http://www.goodlife.com.ng/gltourism.php?gltourism=read&id=65>

Leather work

The skin popularly known as Morocco leather comes from Sokoto. It was erroneously given the name "Morocco Leather" because until recently, it reaches Europe through Moroccan traders across the Sahara Desert. Excellent leather works are produced in Kano.



Fig. 6 Laether pillow, Cushion, Fan and Slippers by Salisu Said (Leather worker-Designer)

Mat weaving

The availability of raw materials such as various kinds of grasses in large quantity made Mat weaving to be very popular in the Savannah region of Nigeria where. The finished products from the craft serve as seats, beads, carpets, and screens. Other uses include hats, fan and other sundry items.



Fig. 7 *Straw Mat Weaving illustrated by Eniayeju*

Brass work

The brass workers painstakingly fashions their designs on a small anvils, using small hammers. Brass works are of two varieties, one that is beaten and the other is cast moulds. Like most traditional craftsmen, no preliminary sketches or drawing are made to guide the brass workers but the punching is so well handled that the patterns are remarkably accurate, precise and exciting. The major centers for their production are Bida and Kano. The finished products from brass consist of trays, bowls, Urns, bracelets, all of which are of considerable attraction to tourists at airports, hotels, and other tourist centers. See fig. 8a below.



Fig. 8a *Intricately designed tea kettles by Whitesmiths Sadia & Mardia Mudi.*



Fig. 8b Assorted Spoons by Sadia & Mardia Mudi.

Calabash Carving

Gourds or calabashes, whether decorated or not, basically carry out the day-to-day activities of the pastoral Fulani women as they are used for serving food, for milking cattle and as carrier vessels. However, the decorated ones have additional value. They are highly prized objects of aesthetic value (Adepegba, 1986). Carving is a craft which is common among the Fulanis of the Northern part of the country. This is due to the fact that Fulani use calabash in hawking their "Fura de Nunu" cow milk which has been one of the sources of getting their daily income. In order to make their product attractive for patronage, they have to embellish their calabash with creative design much of which are culturally inclined and look they look attractive. The culture of selling Fura de Nunu perhaps has made calabash carving as one of the major crafts among the Hausa people. This craft has brought Madam Sabina Jenti of Yola into limelight among her co women as calabash decorator whose designs are unique and much sought after (Aig-Imoukuede, 1988).

Adepegba (1986) concludes that calabashes are mirrors which can be said to symbolize certain important aspects of the nomadic Fulani life and world; the nomads themselves, their mode of life, and all the things notable to them in the expansive grassland region dotted by them, their households and cattle with their agricultural neighbours around them. The designs are of high decorative and expressive value, radiant with individually vital elements. They are the manifestation of the nomads' artistic ideas and capability of their execution, especially in the regions where their needed artistic materials cannot be satisfactorily met from outside.



Fig. 9a A typical Fulani Calabash decorated with geometric shapes



Fig. 9b Hausa Women Engraving designs on Calabash gourds
Sourced: Raymond W. Konan



Fig. 9c Array of Calabash designs including a "Shantu" (Traditional Hausa Musical Instrument)

CULTURE, DESIGN APPLICATION AND STRENGTH FOR NATIONAL DEVELOPMENT

Culture can simply be refer to as the technology by which people in a society comes to term with their environment; and what constitute a national development lies on the quality and by-product of the culture which propels the force for the nation development or decadence. It is truism that culture is a social dimension of sustainability and has integral role at sustaining development. Cultural industries in Northern Nigeria, therefore combines the creation, production and commercialization of content which are characterized with various forms of design on various form of media to engender sustained livelihood. The material and non-material aspect of culture of Northern Nigerians are erected to promote the material and spiritual progress of the people who are concerned; to promote and develop ideas, ideals, beliefs and value while the creative aspect which is the main focus is as well to help to mould other aspect of the culture. It is clear that culture will definitely build a nation if the nation's strategies of national development depend on the understanding of the culture, the adaptation of its elements for its political, educational and economic development.

According to Muhammad (1968), culture, craft and design of northern Nigeria has been promoted as part of, and regarded as an integral component of Nigerian economy. In pre-colonial times, culture – base activities contributed to over 50 % of the economy. The Trans-Saharan and trans-Atlantic trades depended largely on craft exports which represented the highest level of existing technology of the time and, after agriculture, contributed not less than

40% of the economy. The grafting of imported on local skills and techniques, for example, established shoe factories manned by shoemakers from Zinder and Katsina at the foot of the Dala Hill and factories by Arabs from Ghadames at Gingau – Alfindiki where they made lantmi shoes for the emir exported to Tripoli. Silk embroidered slippers were exported from those centres to Sokoto, Gwandu, Nupe and Adamawa for the use of the upper Kano as part of the Trans – Saharan trade.

The exhibition celebrating the traditional crafts of Northern Nigeria which was birthed by the British Council project in Nigeria “celebrating the traditional visual Arts on Northern Nigeria” which was put together highlight how much the craftsmen and women craft and design association in Kano have been using design to contribute their bit in the sustainability of the local and cultural economy of the environment via crafts.

The exhibition took place at Terra Kulture, Lagos from 16th – 29th February, 2008. It was an eye opener revealing how design cut across virtually all human endeavours in the Northern Nigeria ranging from domestic appliances through textile to architecture.

All of these activities have provided various forms of empowerment opportunities, reducing crime rate, increase commerce and boast tourism potentiality of the production centers.

CONTEMPORARY CHALLENGES

Craft is a representation between preservation of tradition and creation of awareness of different culture globally. Therefore, Nigerian handcrafted objects serves as sustainable option at creating continuity and economy around object and artifacts using indigenous resources. Despite the achievement that craft has made on the economy growth of the country especially in the area of job creation ,the introduction of formal training in Industrial Design which is suppose to have balanced the role of traditional craft production culture have not made a very successful giant stride of its goal. Isah and et al (2011) listed the challenges faced in culturally inspired education which ought to have promoted indigenous craft as follows:

1. The negative effects of colonialism when the indigenous craftsmen who would have provided the foundation for technology were relegated to the background. It is widely believed that the emergence of colonialism affected negatively the development of traditional creativity and craftsmanship in favour of Western culture. Western education was criticized for establishing schools with curricula that could not advance the course of traditional crafts and technology.
2. Culturally Inspired Design Education would thrive in the 21st century as a vehicle for self-reliance if art and design programme is reviewed at tertiary level while it is revitalized at the primary and secondary school levels. The objectives of the Nigerian University Commission (NUC) benchmarked minimum academic standard for industrial design programme should be well articulated and implemented to the letter. Art and design education should be seen as a viable tool to advance the course of science and technology. Hence, creative art subjects should be strengthened at various educational levels while there should be adequate provisions for art and design equipment coupled with influx of qualified teachers.
3. Culturally Inspired Design Education must encourage crafts sensibilities. This could be fostered by re introducing crafts and cultural studies into the primary school curriculum in order to rebuild the foundation of knowledge and proper appreciation of the national

cultural heritage. A proper orientation about the relevance of art and culture must be advocated for, so as to pave way for development of culturally inspired design solutions and enable people to be culturally sensitive. Those who get such exposures penetrate into many occupations to make a huge difference to their professional lives by showcasing the impacts of their cultural backgrounds.

4. There is a need for value reorientation on the role of art and culture in the development of the nation. The effect of civilization which has watered down the core values and significance of culture in the minds of the people should be remedied. Besides, a point of equilibrium must be set between science, technology and art. Therefore, it is expedient to sensitize the public to have a new outlook about the content and context of the culture in order to save it from its current place of relegation and misinterpretation. There is the need to involve non-governmental organizations in the propagation of the importance of culturally based design education in Nigeria. There should be formation of design institute that will be strategically positioned to influence government at enacting legislative policies that can harness culture as a tool for national development. Culturally Inspired Design Education would only thrive if serious design policy that could bring value to technological and cultural heritage is brought to the fore by government in line with the objectives of the New Partnership for African development (NEPAD). Such policy must be all embracing, holistic and integrating in terms of sustainable development initiatives for social and economic revival of Africa as championed by prominent Nigerian artists and designers such Demas Nwoko, Bruce Onakbrakpeya, Yusuf Grillo, Jimoh Akolo Nike Okundaiye among host of others. The institute will be responsible to maximize the advantages inherent in Nigerian cultural heritage to be able to forge a common front for culturally inspired design education in its ramifications.

RECOMMENDATION

The traditional craft that do not have serious of danger of being replaced by urban amenities that is outcome of modern day technology can be encouraged by government, especially now that the federal government of Nigeria is advocating for entrepreneurship. These should be incentive to specialized production such as glass bead designs, blacksmithing and pottery, aiming at the new, non-traditional market. Example is traditional inkpots, which are flower pots, to cater for the growing purchased mostly by European style houses with gardens and patios.

CONCLUSION

Nigerian traditional art, crafts particularly those from Northern Nigeria continue to enjoy honours among the other world master piece inspite of the fact that some of them are of the past generation but still dynamic to the contemporary generations with touch of modification in terms of applied technology.

One thing that has acquired and remained constant in life is change. The concept of change touches every aspect of human existence including other life forms. Cultures and traditions are other aspects of life subject to change. However, change in culture or tradition have prolific effects on the lives of the people loyal to such cultures and traditions, been avenues that direct the people's way of life. And for many cultures of the world, tempering or going against some aspects of the tradition attracts outright condemnation that could come with consequences; some of which could be very grave and may last for generations.

The Northern part of Nigeria could have maintained their culture and traditions if the older generation had made it a point of duty to imbibe the spirit of culture in them first, then making

their children imbibe it, think it and exhibit it with pride. If we don't give our children quality time, their companions would be televisions, the main media that would teach them other people's culture, and their peers that may likely put pressures on them. We have the architectural capabilities to modernize our Old-kano-City models of buildings and make a whole city of them. Countries that maintained their cultures for centuries also excelled in technology, sciences, arts, governance, etc. This means that you can be civilized and at the same time be cultured. It is not too late. We can still put in extra efforts to preach culture to our children so that their children and grand children may spare our dearest culture and traditions.

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The leaking pocket: The implicit struggle for skilled health workers between private not-for-profit and public sector in Tanzania.

Kahabi G. Isangula

The Johns Hopkins Bloomberg School of Public Health
Management Sciences for Health & Triangle Solutions, Dar Es Salaam, Tanzania.

Sharon Brownie

Griffith University Gold Coast, Australia & Green Templeton College
Oxford University, UK

ABSTRACT

Public health services in sub-Saharan Africa countries face severe health workforce shortages exacerbated by both outward migration and internal public to private sector migration—Tanzania is no exception. This review was conducted to characterize the extent of health workforce shortages in Tanzania, and the factors impacting on the shortage. The authors reviewed publicly available data to assess the extent of health workforce shortages within Tanzania and the range of 'pull' and 'push' factors contributing to the shortages. Findings highlight significant health workforce shortages in Tanzania. Pull factors, the advantages offered that 'pull' workers towards the new jobs and well as Push factors, those negative factors that 'push' workers out of their jobs, such as poor pay, working conditions, and management and governance issues, were identified. The issue of health workforce flow from the public to private not-for-profit sector was particularly notable and the impact this has on the ability to provide an effectively functioning public health system in Tanzania. The authors conclude that opportunities exist for the private not-for-profit sector to take an active role in the production of skilled human resources for health in Tanzania.

Key words: Health; Tanzania; public health services; private health services; capacity building; workforce development

INTRODUCTION

Regardless of a country's level of development, a functional health system is the prerequisite for effective health service delivery. Human resource for health is a core building block for such a system, and building the capacity of this resource should be a common goal for both the public and the private health sectors. Globally, the demand for health services is rising and production of competent and motivated health workers is central to ensuring that there are sustainable, quality health services available to meet this increasing need.

African countries face a severe shortage of skilled human resource for health. This has seriously eroded the capacity of local health systems to function effectively, efficiently, and equitably; particularly in the delivery of health services to the poorest and more vulnerable members of African societies.

The health workforce in Tanzania

Like other sub-Saharan countries, the Tanzanian health sector is not only understaffed, but also lacks skilled health workers. The Human Resources for Health census carried out in 2002 reported that of Tanzania's estimated 48,000 health workers, many were unskilled (1). The literature also highlights the uneven distribution of healthcare workers between urban and rural areas, and the resulting disadvantage experienced by rural and remote places; this remains a fact to date despite many efforts to address the situation. It has also been noted that Tanzania had the lowest ratio of highly trained health workers (physicians) per capita in the world (2). This shortage of skilled health workers is exacerbated by factors such as low productivity, ineffective incentives (both financial and non-financial), a poor working environment, poor career schemes, and migration to other healthcare labour markets within and outside the country (1). This review was conducted to characterize the extent of health workforce shortages in Tanzania, and document the factors impacting on the shortage.

MATERIALS AND METHODS

A review of publically available data was undertaken to assess the extent of health workforce shortages in Tanzania, and the factors impacting on the shortage. The review was conducted via internet searches that included PubMed, Bio Medical Central, the databases of agencies such as the World Health Organization (WHO), and a general search on Google scholar. Combinations of keywords (Tanzania, health workforce, public health services, private health services, capacity building, workforce development, human resources for health, private not-for profit, private for-profit) were used to define the search. Due to the limited material available, strict inclusion and exclusion criteria were not set and abstracts were screened for keyword relevance.

For the purposes of the review, the public sector is defined as services and facilities operating with government funding, or where the workforce is directly employed by central or local government. The private sector includes private not-for-profit organizations, such as non-government and community-based organizations, foundations and institutions whose primary goal is not profit generation, as well as those private organizations who do seek profit generation from their operations.

RESULTS AND DISCUSSION

The literatures reviewed highlighted that a factor central to the health workforce crisis for sub-Saharan Africa is suboptimal education and training (3), and that the development of a public health workforce that is knowledgeable, skilled, and committed is an essential aspect of strengthening a country's health system (4). Structural pressures faced by the health systems in developing countries can include issues such as increasing overall demand for services, as well as imbalances in the skill distribution of health professionals (including underinvestment in the mid-level workforce), geographical imbalance and public and private sector imbalance (5-8).

The review also found that the competition for health workers between the public sector and the private not-for-profit organizations in Tanzania not only compounds the shortage of skilled and experienced human resource for health in the public sector, but also contributes to the wider-scale shortage of human resources for health available across the country. For example, the 2006 annual health statistical abstract of the Ministry of Health and Social Welfare, indicated that about 26% of health workers in Tanzania were not employed by the public sector (9). Moreover, of the 23,474 health staff that graduated from different training

institutions between 1993 and 2005, approximately 84% were not employed by the public sector (10).

The migration of health professionals from (Tanzania) to other countries; from the rural to the urban health areas; and from public to private sector, particularly the not-for-profit, are major contributing factors to (Tanzania's) health workforce crisis (11).

Push and pull factors impacting on health workforce flow

'Push' and 'pull' factors for the migration of health care workers have been well documented (1, 12). Push factors have been identified by Munga & Mbilinyi (1) as "those negative factors that 'push' workers out of their jobs, such as poor pay, working conditions, management and governance" (p.4). In addition, in Naicker et al. (12), push factors are considered to include "lack of opportunities for postgraduate training; underfunding of health service facilities; lack of established posts and career opportunities; poor remuneration and conditions of service, including retirement provision; governance and health service management shortcomings" (p.62).

In Tanzania, a number of push factors are evident in the health sector where low salaries and poor working conditions are well documented. In a viewpoint on the doctor's strike in Tanzania, Isangula (13) commented that "The causes of a strike are always related to two concerns, namely (1) the working conditions of the doctors, including infrastructure, drug availability, equipment and other medical supplies, and (2) underpayment in terms of salaries and allowances" (p.2).

While Munga & Mbilinyi (1) considers pull factors to be factors such as "the advantages offered by new jobs, such as higher pay and better working conditions that 'pull' workers towards the new jobs" (p.4), Naicker et al. (12) on the other hand considers them as factors that include "opportunities for further training and career advancement; the attraction of centres of medical and educational excellence; greater financial rewards and improved working conditions; and availability of posts, now often combined with active recruitment by prospective employing countries" (p.62).

Pull factors such as higher pays, better working conditions, sustainable health insurance and other benefits tend to be higher in private not-for-profits than in the public sector. The pull factors tend to operate in favour of the private not-for-profit in the silent competition for skilled health workers in Tanzania, as more skilled health workers are 'pulled' from the public sector. For example, in addition to other benefits or rewards and opportunities for further training and career advancement, a physician in Tanzania who is a program manager in an international non-government organization (NGO) is paid almost two to five times more than the same level physician in the public sector. In addition, as the private not-for-profit sector is performance-driven in regard to meeting donor demands for deliverables, this often results in the highly skilled and experienced workers being pulled from public sector, to ensure deliverables are met.

Increasingly, greater numbers of medical doctors, nurses, pharmacists and other cadres are being absorbed by the private not-for-profit sector. While the flow of skilled health workers in Tanzania from the public to the private not-for-profit sector may reflect the presence of pull factors, it may also reflect limited input of the private not-for-profit in particular into the production of skilled health workers to build the capacity of the health workforce and replace those pulled from the public sector.

The public sector is the main provider of health services, particularly in rural settings. With a shortage of skilled human resources for health in the public sector, Tanzania's progress towards achieving the Millennium Development Goals (MDGs) is greatly affected. This means Tanzania is less likely to achieve the MDGs by the target date of 2015. Munga and Mbilinyi (1) highlighted the unfavourable direction towards MDGs when they noted that "(The public sector) in Tanzania is unable to attract and retain an adequate and qualified health workforce to effectively implement health interventions, reverse the negative health status trends and ultimately achieve Millennium Development Goals (MDGs)" (p.3). Statistics show that Tanzania still has a high maternal and infant mortality rate, far away from the MDGs of reducing child mortality (goal 4) and improving maternal health (goal 5) (14-16). In addition, tuberculosis case- reduction is not on track with the WHO targets. The prevalence of HIV/AIDS is high with only a slow reduction of infection rate, while malaria is still affecting large proportion of the community despite the recent documented success. Nation-wide programs relating to the reduction of the prevalence of these health conditions require sufficient and stable skilled human resources for health supply.

CONCLUSION AND RECOMMENDATIONS

There is an implicit competition for skilled health workers between the public and private not-for-profit in Tanzania. The authors noted that there is inadequate documentation on the extent of internal migration of health workers from the public to the private for-profit sector, and have identified a need for focused research in this area. It is evident that the push factors operate in the public sector and the pull factors are operating in the private not-for-profit sector, making the public sector a loser in the competition for skilled health workers. Authors suggest that the public and the private not-for-profit sector considers how they can best work alongside each other to increase the resources for health workforce production and build the capacity of human resource for health across all of Tanzania. If the Human resources for health gaps are to be addressed, the private not-for-profit sector needs to intensify investments in production of the skilled health care workforce in Tanzania. This will help to refill the public sector 'pocket' of skilled health workers that are pulled towards the private not-for-profit sector and ensure access to sustainable, quality services for vulnerable populations, and also complement the efforts of the government in striving to achieve the millennium development goals.

Competing interests

The authors declare that they have no financial or non-financial competing interests.

Authors' Contributions

Isangula, K contributed the initial manuscript concept, accessed local data, provided Substantive local insights and interpretation and was the lead writer of the article. Brownie, S assisted by expanding the literature review, undertaking data interpretation and was the secondary contributing author while also providing editorial advice and review of developing drafts.

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Influence of Job Stress and Nurse-Physician Collaboration on Job Satisfaction of Nurses and Doctors in Ekiti State, Nigeria.

Olatunji, Samuel O. (Ph.D)

Department of psychology
Faculty of the Social Sciences
Ekiti State University, Ado Ekiti, Nigeria.

Mokuolu, Bolade O. (Ph.D)

Department of psychology
Faculty of the Social Sciences
Ekiti State University, Ado Ekiti, Nigeria.

Ola Dare

Department of psychology
Faculty of the Social Sciences
Ekiti State University, Ado Ekiti, Nigeria.

ABSTRACT

The study examined the underlying factors that influence job satisfaction of nurses and doctors in Ekiti state of Nigeria. One hundred and ninety one professionals, comprising one hundred and two nurses and eighty nine doctors responded to the Perceive Stress Scale, Collaboration and Satisfaction about Care Decisions, and Minnesota Satisfaction questionnaire. The results using the 2X2 Analysis of Variance showed that job stress has effect on job satisfaction of the respondents [$F(1,187) = 161.64, p < .01$]. The effect of nurse-physician collaboration on job satisfaction of the respondents was also confirmed. [$F(1,187) = 22.28, p < .01$]. There is also a significant interaction effect of job stress and nurse-physician collaboration on job satisfaction of the respondents [$F(1,187) = 6.89, p < .01$]. Stress managements strategies and collaborative practice were suggested.

Key words: Job stress, Job satisfaction, Nurse-Physician collaboration

INTRODUCTION

The concept of job satisfaction has been widely defined by different people. Locke [7] specified that job satisfaction is a pleasurable or positive emotional state resulting from appraisal of one's experiences. Generally speaking, job satisfaction is the extent to which workers are happy on their jobs. Health care organisation that wants to achieve qualitative service delivery requires satisfied and happy staff. The ability of any health care organisation to achieve its goals is a function of its ability to attract, retain and maintain competent and satisfied staff into its employment. Job satisfaction in staff nurses and physicians should be of great concern to any health care organisation and the society as a whole because nurses and doctors hold sensitive positions in most health care setting. Health care organisations will suffer so greatly as a result of job dissatisfaction of nurses and doctors. That is why the need arises for the underlying factors of job satisfaction to be identified and necessary recommendations made for effective health care delivery.

Although several factors contribute to nurse's job satisfaction and retention factors currently addressed in nursing literature include autonomy, job stress and nurse-physician collaboration [5]. These factors often have been identified as being related to job satisfaction instruments, theories and conceptual models [2].

Job stress is straining the body in the workplace while nurse-physician collaboration is partnership or working relationship between nurses and doctors. Various researches have shown that these two variables exert great influence on job satisfaction. Blegen [3] indicated the importance of the relationship between job satisfaction and nurses' perceptions of a positive work environment, cohesive and collaborative staff relations; that favourable work environment and collaboration between nurses and other health care providers go a long way to influence their job satisfaction.

In the aspects of organizational and managerial affairs, a strong negative relationship has been found between nurses' occupational stress and job satisfaction. and it has been reported that high levels of occupational stress results in increasing turnover rates and causes more and more nurses to leave their jobs. Also a high level of occupational stress caused by heavy workload has been found to reduce nursing quality, and can threaten the lives and security of patients [8].

When the relation between the years of experience in nursing practice and nurses' commitment was investigated, no statistically significant association could be revealed.

Nursing and medical job satisfaction is a critical challenge to any health care organisation. It has become one of the most pressing concerns for hospitals worldwide. The crisis will only deepen if the underlying factors are not addressed. This study is therefore poised to examine nursing and medical stressful working conditions and complete nurse-physician collaboration and their influence on job satisfaction among nurses and doctors. Job life is one of the most important parts of our daily lives which cause a great deal of stress. People with higher percentage of job stress may not be satisfied with their job and therefore, they will not feel happy working in the organisation. They are bound to be dissatisfied when they feel frustrated or "burnout". The study of Landabergis [6]; Terry, Nelson and Richard [9], show that high level of work stress are associated with low level job satisfaction.

This work therefore seek to examine the following objectives:

- Find out whether job stress has effect on job satisfaction of nurses and doctors in Ekiti State.
- Determine whether nurse physician's collaboration will have effect on job satisfaction of nurses and doctors.
- Find out whether job stress and nurse physician collaboration will interact to affect job satisfaction of nurses and doctors

To determine which of the two professions are the job satisfaction actually affected by job stress

METHODS

The study was carried out in the Federal Medical Centre Ido-Ekiti, in Ekiti State Nigeria. A stratified random sampling method was used to draw 200 nurses and doctors from 20 different specialities in the Federal Medical Centre, Ido-Ekiti in Ekiti state. The Participants that completed the questionnaire comprised of 102 nurses and 89 doctors, out of which 68 were female nurses and 34 male nurses; 26 were female doctors and 63 male doctors.

The variables studied were job stress and nurse physician collaboration and job satisfaction. Job stress was measured with perceived stress scale (PSS) by Cohen, Kamarck & Mermelstein [4]. It has established reliability and validity of 0.85. It contains 10 self-report items with a five-point scale: 0 = never, 1 = almost never, 2 = sometimes, 3 = fairly often, 4 = very often. The scores on the items 4,5,7 and 8 are reversed. While Nurse Physician Collaboration was measured using Collaboration and Satisfaction About Care Decisions (CSACD) developed by Baggs [1]. Reported Cronbach's Alpha for internal consistency of collaboration is 0.93 and its reliability is 0.90. Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss, Dawis, & England [10] was employed to measure job satisfaction. It was validated for American and Nigerian use.

The research made use of factorial design involving two independent variables (job stress, and nurse physician collaboration) and one dependent variable (job satisfaction). Each of the independent variable appeared at two levels: high and low job satisfaction and collaboration respectively. The mean was use to dichotomise the scores, scores above and below the mean are regarded as high and low job stress respectively. Scores above the mean were regarded as high in collaboration and those below were low in collaboration. The 2 x 2 Analysis of variance was used to test for the main and interaction effect of the independent variables on the dependent variable.

RESULTS AND DISCUSSION

Table i: Descriptive table showing the mean and standard deviation of job satisfaction among those with high and low job stress and nurse-physician collaboration.

Variables	X	SD	N
High Job stress	39.17	7.33	115
Low Job stress	73.91	21.44	76
High Collaboration	69.77	22.31	70
Low Collaboration	43.29	15.66	121

Table ii: 2X2 Analysis of Variance summary table showing the main and interaction effect of job stress and nurse-physician collaboration on job satisfaction.

Source	SS	Df	MS	F
Job stress	29543.89	1	29543.89	161.64*
Nurse-physician collaboration	4072.21	1	4072.21	22.28*
Job stress and Nurse-physician collaboration	1258.81	1	1258.81	6.89*
Error	34178.54	187	182.77	
Total	94846.99	190		

* P< .01

The results in the table shows that there is a significant effect of job stress on job satisfaction of nurses and doctors [F (1,187) =161.64, p<.01]. There is a significant effect of nurse-physician collaboration on job satisfaction of nurses and doctors [F (1,187)=22.28 p<.01] there is a significant interaction effect of job stress and nurse-physician collaboration on job satisfaction of nurses and doctors [F (1,187)= 6.89, p<.01]. Therefore the hypothesis that there will be significant main and interaction effect of job stress and nurse-physician collaboration on job satisfaction of the respondents was confirmed.

Table iii: Independent t-test Table comparing nurses and doctors on job stress, nurse-physician collaboration and job satisfaction

Variable		N	χ	SD	SE	Df	t
Job Satisfaction	Nurses	102	44.46	17.35	1.72	189	6.18*
	Doctors	89	62.77	23.47	2.41		
Job Stress	Nurses	102	26.59	9.07	.89	189	5.51*
	Doctors	89	18.28	11.72	1.24		
N/P Collaboration	Nurses	102	14.15	14.92	1.47	189	10.01*
	Doctors	89	39.46	19.93	2.11		

* P < .01

Table iii shows that there is a significant difference between doctors and nurses on job satisfaction, job stress and nurse/physician collaboration. Nurses reporting higher level of stress, lower level of nurse/physician collaboration and consequently lower level of job satisfaction compared with the doctors.

Table iv: Independent t-test Table showing the effect of job stress and nurse/physician collaboration on job satisfaction among nurses.

Variable	N	χ	SD	SE	Df	t
High collaboration	11	78.82	14.39	4.34	100	9.57*
Low collaboration	91	40.31	12.38	1.27		
High stress	86	38.32	8.29	.89	100	14.52*
Low stress	16	77.44	16.21	4.05		

* P < .01

Table iv shows that nurses that are high in collaboration are significantly higher in job satisfaction ($\chi= 78.82$) than nurses that are low in collaboration ($\chi =40.31$), [t(100) =9.57, p<.05]; also nurses that are high in job stress are significantly lower in job satisfaction ($\chi =38.32$) than nurses that are low in stress job ($\chi=77.44$)

Table v: Independent t-test Table showing the effect of job stress and nurse/physician collaboration on job satisfaction among doctors

Variable	N	χ	SD	SE	Df	t
High collaboration	59	68.08	23.19	1.28	87	3.14*
Low collaboration	30	52.33	20.63	2.27		
High stress	40	41.22	8.07	3.02	87	14.11*
Low stress	49	80.37	15.93	3.76		

* P < .01

Nursing and medicine are sensitive positions in health care organisations which should team up with a view to enhancing qualitative health care delivery. This consequently makes the job satisfaction of the two parties in the helping profession to be germane. The study carried out the evaluation of job satisfaction in relation to job stress and nurse-physician collaboration among nurses and doctors and found that those that reported low job stress and high

collaboration reported higher level of job satisfaction [$\chi = 73.91$ and 69.77 respectively] compared with their counterparts who reported high level of job stress and low collaboration who reported lower level of job satisfaction [$\chi = 39.17$ and 43.29 respectively].

This implies that the lower the job stress the higher the satisfaction derived from the job. Also the quality of the teamwork that exists enhances job performance and when high rate of success is recorded, this will then enhance the satisfaction that will be derived from the job, because the collaboration shows that the role of each party is appreciated by the other party.

It was also revealed in this work that job stress is inherent in hospital environment as 60.21% of the respondents reported job stress, which may result from work overload among other factors. Comparing doctors and nurses, there is a significant difference in the level of job satisfaction, job stress and nurse/physician collaboration experienced. Nurses seems to be more prone to stress than doctors, as nurses reported higher level job stress ($\chi = 26.59$), and low collaboration ($\chi = 14.15$), compared with the doctors who reported 18.28 mean level of stress and higher collaboration ($\chi = 39.46$). This may be due to the fact that the nurses are always with the patients and are closer to the patients than the doctors who only check on the patients, make their recommendations and leave them in the hand of the nurses.

There is also this aura of superiority among the doctors over the nurses, which, the nurses do not always agree with, which always bring about rivalry and may consequently affect the collaboration that should have existed between them, the nurses being at the receiving end.

In conclusion, there is a negative correlation between job stress and job satisfaction. When stress is high, job satisfaction is low and vice versa. So also Nurse-physician collaboration exerts a significant influence on job satisfaction. When there is high collaboration between nurses and doctors, job satisfaction is higher than when there is low collaboration. Health care organisations have to be aware of different facets of job satisfaction, so that effective policies and strategies may be put in place to address problem areas. Continuous monitoring of job satisfaction may be a useful tool to facilitate the development of the organisation. Therefore a non-stressful work environment coupled with good working relationship assures job satisfaction of nurses and doctors. Training and educational programmes for nurses and doctors, which focus on team work and working relationships, should be encouraged.

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Factors Influencing Performance of Life Insurance Services in Tanzania: A Case Study of National Insurance Corporation of Tanzania

Ngaruko D. Deus

Open University of Tanzania

deus.ngaruko@out.ac.tz

Mathee T. Josephine

National Insurance Corporation of Tanzania

mkundet1973@hotmail.com

ABSTRACT

The main objective of this study was to identify factors influencing the performance of life insurance service in Tanzania as an effort to contribute and promote insurance sector as an effective catalyst for economic growth. The study was based on data collected from the National Insurance Corporation of Tanzania which covered period of 16 years from 1995 to 2010. Data from annual reports, publications, market performance reports and documentation were obtained. Simple descriptive statistics and graphical analysis were used to describe selected variables. Multiple linear regression analysis was used as sole data analysis methods for research hypotheses. The results show Net Premium Written has been explained by new policies written, the industry market share, the costs of advertisement and marketing, the total number of registered insurance companies, the number of life insurance companies and the early claims settlement.

Key words: Life insurance, NIC, net premium written

BACKGROUND INFORMATION

With the increasing demands of customers, insurance sector has become competitive. The one for all or all for one syndrome is being given a go- by. Customers are becoming increasingly aware of their expectations, and demand higher standards of services, as technology is enabling them to make comparisons quickly and accurately. Their perceptions and expectations are continually evolving, making it difficult for service providers to measure and manage services effectively. The researcher wants to explore factors that affect the potential customer to seek for insurance services in Tanzania and how those factors affect the life insurance company's performance. The amount of Premium collected from policyholders who are insured with the National Insurance Corporation of Tanzania ltd (NIC) has been fluctuating year after year. Figure 1 indicates that premium trend was increasing from the year 1963 until 1998 when it started to decrease gradually. This was resulted from the Government policy of Liberalization and privatizations of financial sectors and insurance sector was among them. Many other insurance companies have been formed. This policy has increased competition in the market because new players lure away the NIC's market share. We are all aware of the essential role that insurance services play as a commercial and infrastructural service. From an infrastructural perspective it promotes financial and social stability, mobilizes and channel savings, supports trade, commerce and entrepreneurial activity and improves the quality of the lives of individuals. Governments all over the world are faced with challenges relating to the

regulatory environment, emerging global trends in the insurance sector, technological innovations and liberalization of the insurance sector. Despite the fact that NIC is having branches in each region in Tanzania and offer both long-term insurance services (life) and non life services (general), its market share has dropped significantly up to year 2010.

The potential impact of the operations of insurance companies on the activities of the policyholders, the economy as a whole and the impact of emerging trends in the global insurance market has raised public awareness about the benefits of insurance. There are two detailed studies on the determinants of life insurance demand, one taking into consideration only the Asian countries and the other based on 68 economies. The former study by Ward et al. (2003) and the later by Beck et al. (2003) evolves around the issue of finding the cause behind variations in life insurance consumption across countries. After almost three decades of empirical work in this direction, it is still hard to explain the anomalous behavior of Asian countries with higher savings rate, large and growing population, relatively low provision for pensions or other security and a sound capital market but comparatively low per-capita consumption of insurance. Except Japan, most of the Asian countries have low density and penetration figures. The insurance industry, in most of the Asian economies were publicly owned and remained isolated from domestic private or foreign participation. But, regulatory reforms and policy changes in the ASEAN economies in the post financial crisis period, liberalization process in some of the SAARC countries, China’s accession to WTO and creation of Hong Kong SAR had led to phenomenal changes in the growth pattern of insurance industry in these economies. Insurance Conference held in Dar es Salaam in year 2010 shows that only about 1% of Tanzanians are registered in various insurance products, Jagjit Singh, (2010) and lack of awareness seems to be the source. As it is difficult to predict the future and much other uncertainty (Sonia, 2002), this paper reports on a research study intended to examine factors that influence the performance of life insurance services and whether they have statistical significant influence on volume of premium collections by the giant insurance company, NIC.

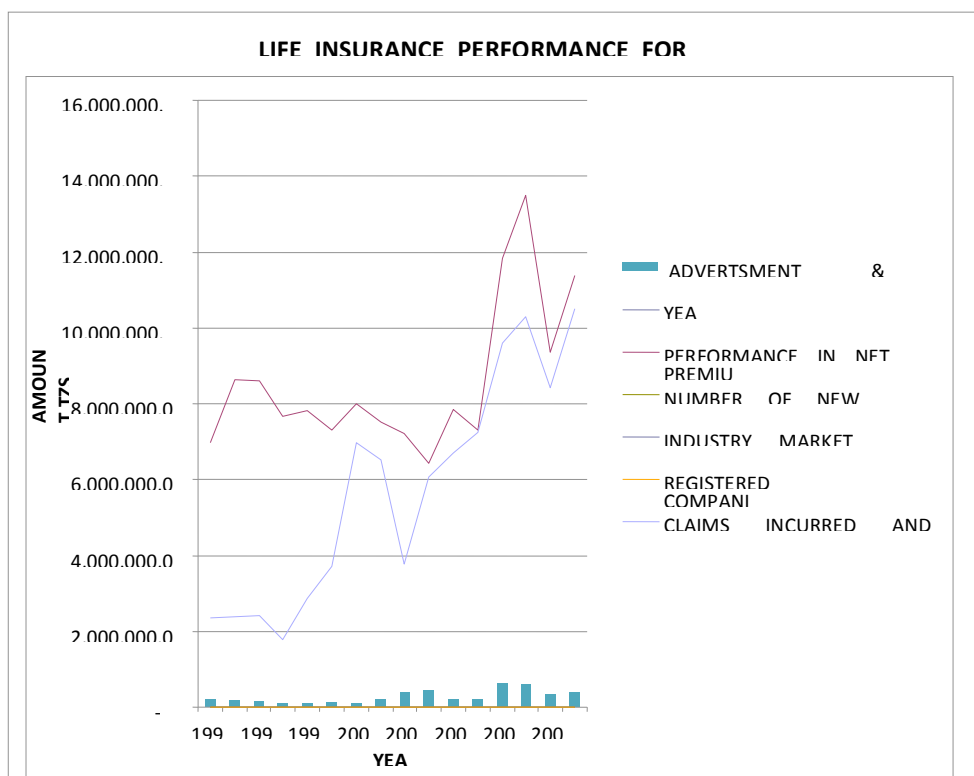


Figure 1: NIC Life Insurance performance for 15 years from 1995-2010
 Source: NIC Annual reports (1995-2010)

Research objective

Specifically this paper intends to cover the following three objectives;

- Describe factors which influence the performance of life insurance services in form of the net premium written
- Assess extent at which the selected factors affecting written premium are linearly correlated to each other
- Analyze the causal-effect influence of the selected factors in the performance of the company in form of premium written.

Research Hypotheses

The General Hypothesis of the study is that the selected study factors have significant influence on the performance of the life insurance services in Tanzania. Specifically the following hypotheses were tested:

- Number of new life insurance policies has a statistically significant positive influence on life insurance premium
- The company's market share has a statistical negative influence on the life insurance premium collection.
- Life insurance premium decreases with increase in the costs of advertisement and marketing
- There is no influence of number of registered insurance company on the life premium collection
- Additional registered life insurance company has a negative influence in the life insurance premium.
- Claims payments have negative influence on the company premium performance.

LITERATURE REVIEW

Theoretical literature Review

Studies on life insurance consumption dates back to Heubner (1942) who postulated that human life value has certain qualitative aspects that gives rise to its economic value. But his idea was normative in nature as it suggested 'how much' of life insurance to be purchased and not 'what' will be purchased. There were no guidelines regarding the kind of life policies to be selected depending upon the consumers capacity and the amount of risk to be carried in the product. Economic value judgments are made on both the normative as well as positive issues. Later studies on insurance gradually incorporated these issues via assimilating developments in the field of risk and uncertainty following works by von Neumann and Morgenstern (1947), Arrow (1953), Debreu (1953) and others. The economics on insurance demand became more focused on evaluating the amount of risk to be shared between the insured and the insurer rather than evaluation of life or property values. This emerged because it was risk associated with individual life or property that called for an economic valuation of the cost of providing insurance.

Life insurance is essentially a form of saving, competing with other forms of saving in the market. The theory of life insurance demand thus developed through the life-cycle model(s) of saving. Let a person's income rate and his consumption plan are represented by a continuous function of time $y(t)$ and $c(t)$ respectively. Using the expected utility framework in a continuous time model, Yaari (1965) studied the problem of uncertain lifetime and life insurance. Including the risk of dying in the life cycle model, he showed conceptually that an individual increases expected lifetime utility by purchasing fair life insurance and fair annuities that give the expected payment which satisfy the police holder. Simple models of insurance

demand were proposed by Pratt (1964), Mossin (1969), Smith (1968) and others; considering a risk adverse decision maker with an initial wealth W . The results indicate that demand for life insurance varies inversely with the wealth of the individuals. Hakansson (1969) used a discrete-time model of demand for financial assets and life insurance purchase in particular to examine bequest motive in considerable detail. Pissarides (1980) further extending Yaari's work proved that life insurance was theoretically capable of absorbing all fluctuations in lifetime income. Lewis (1989) found out that the number of dependents as an influence on the demand for life insurance.

Insurance allows people to prepare themselves for the unexpected by taking cover for a specified fee known as premium. Once a customer is insured he is supposed to be compensated immediately when the loss occurred. Most of the time people do take insurance because it is the law which require them and not because they want to cover themselves. Sometimes the quality of the service as well as the advertising does inspire people. Factors affecting Life assurance services may be; the price or premium charged by the insurers; the performance of the company in the industry; the cost incurred in order to advertise insurance products; the number of other companies providing the same or related services; the early or quick settlement of the customers claims as well as other benefit like bonuses

Empirical literature Review

Most of the studies had focused on both the demand side factors and the supply side factors. Headen and Lee (1974) studied the effects of short run financial market behavior and consumer expectations on purchase of ordinary life insurance and developed structural determinants of life insurance demand. They considered three different sets of variables: first, variables stimulating demand as a result of insurer efforts (e.g. industry advertising expenditure, size of the sales force, new products and policies, etc.); second, variables affecting household saving decision (e.g. disposable, permanent and transitory income, expenditure expectation, number of births, marriages, etc.) and lastly, variables determining ability to pay and size of potential markets (e.g. net savings by households, financial assets, and consumer expectation regarding future economic condition). They concluded that life insurance demand is inelastic and positively affected by change in consumer sentiments; interest rates playing a role in the short run as well as in the long run.

Using an international dataset (12 countries over a period of 12 years) to examine the relationship between property liability insurance premiums and income, Beenstock et al. (1988) found out that marginal propensity to insure i.e., increase in insurance spending when income rises by 1\$, differs from country to country and premiums vary directly with real rates of interest. Assuming a two period simple model; they considered the case when wealth W is reduced by G following a loss and no insurance purchased in the first period. If there had been some insurance purchased than wealth in the first period equals ($W - \text{premium paid}$) and assuming loss, end period wealth is ($G - \text{sum insured}$). Thus, again the decision of consumer and his/her initial wealth status too are significant factors when short run or long run consumption of insurance is considered.

The study by Truett et al. (1990) discussed the growth pattern of life insurance consumption in Mexico and United States in a comparative framework, during the period 1964 to 1984. They assumed that at an abstract level demand depends upon the *price* of insurance, income level of individual, availability of substitute and other individual and environment specific characteristics. Further, they experimented with demographic variables like age of individual insured(s) and population within the age group 25 to 64 and also considered education level to have some bearing on insurance consumption decision. They concluded the existence of higher

income inelasticity of demand for life insurance in Mexico with low income levels. Age, education and income were significant factors affecting demand for life insurance in both countries.

Starting with a brief review of Lewis's theoretical study and an assumption that inhabitants of a country are homogeneous relative to those of other countries, the study by Browne et al. (1993) expanded the discussion on life insurance demand by adding newer variables namely, average life expectancy and enrollment ratio of third level education. The study based on 45 countries for two separate time periods (1980 and 1987) concluded that income and social security expenditures are significant determinants of insurance demand, however, inflation has a negative correlation. Dependency ratio, education and life expectancy were not significant but incorporation of religion, a dummy variable, indicates that Muslim countries have negative affinity towards life insurance.

Based on a cross-sectional analysis of 45 developing countries, Outreville (1994) analyzed the demand for life insurance for the period 1986. In his study he considered variables such as agricultural status of the country represented by the percentage of agricultural labor force; health status of the country in terms of amenities like percentage of population with access to safe drinking water; percentage of labor force with higher education and the level of financial development as factors explaining insurance demand other than the variables we have discussed above. Two dummy variables were used to reflect the extent of competition in the domestic market and foreign participation in the countries considered. The analysis shows that personal disposable income and level of financial development significantly relates to insurance development. Since the political philosophy regarding market openness varies from country to country, market structures dummy appeared to be significant.

There are two detailed studies on the determinants of life insurance demand, one taking into consideration only the Asian countries and the other based on 68 economies. The former study by Ward et al. (2003) and the later by Beck et al. (2003) evolves around the issue of finding the cause behind variations in life insurance consumption across countries. After almost three decades of empirical work in this direction, it is still hard to explain the anomalous behavior of Asian countries with higher savings rate, large and growing population, relatively low provision for pensions or other security and a sound capital market but comparatively low per-capita consumption of insurance. Except Japan, most of the Asian countries have low density and penetration figures.

The two main services provided by life insurance: income replacement for premature death and long-term savings instruments, are the starting point for Beck et al. (2003). They considered three demographic variables (young dependency ratio, old dependency ratio and life expectancy), higher levels of education and greater urbanization as independent factors in explaining insurance demand. Economic variables like Gini index and Human development index are new additions along with institutional variables reflecting political stability, access to legal benefits and an index of institutional development were used. The analysis considering the time period 1961 to 2000 shows that countries' with developed banking system, high income and lower inflation have higher life insurance consumption. The association of insurance demand with demographic is not statistically strong however older the population, higher tends to be insurance consumption. The luxury good nature of insurance did not reflect through its association with income distribution.

In contrast to Beck et al. (2003) results, the study by Ward et al (2003) is indicative of the fact that improved civil rights and political stability leads to an increase in the consumption of life insurance in the Asian region as well in the OECD region. Following Laporta et al (1997, 1998, and 2000) works relating to supportive aspect of legal environment for finance, they too considered the same in determining insurance demand. Analyzing the data from 1987 through 1998 for OECD and Asian countries, they observed that income elasticity between developed economies and emerging economies are consistent with “S-cure” insurance growth findings by Enz (2000). One basic factor that puts a brake on growth is low propensity to consume: low propensity for life insurance, not necessarily because of considerations of affordability nor because of inadequate range of insurance products and services. Rajni M. Shah (2008). The major determining factor is lack of awareness of life insurance per se. And this phenomenon is not confined to rural and semi rural segments of society: it pervades urban populace as well.

Policy review

In Tanzania all insurance businesses are regulated by Tanzania Insurance Regulatory Authority (TIRA). TIRA was established under Section 5 of the Insurance Act No. 10 of 2009 which provides that there is established a body to be known as the Tanzania Insurance Regulatory Authority; that subject to the general supervision of the Minister, the Authority shall be charged with the responsibility of coordinating policy and other matters relating to insurance in the United Republic and that the Authority shall be a body corporate with perpetual succession and a common seal and shall, its corporate name, be capable of suing and being sued; capable of borrowing money, acquiring and disposing of property; and capable of doing all other things which a body corporate may lawfully do.

Insurance business is divided into two main classes that are General Insurance Business and Long Term Assurance Business. General Insurance business comprises the following classes: accident, sickness, land, vehicles, railway rolling, aircraft, ships, goods in transit, fire and natural forces, damage of property, motor vehicle liability, aircraft liability, liability for ships, general liability, credit, surety ship, miscellaneous, legal expenses, and assistance (as per Part B of the Second Schedule of the Insurance Act 2009). Long Term Assurance business is defined as meaning life and annuity business, marriage and birth business, linked long term business, and permanent health insurance business (as per Part A of the Second Schedule of the Insurance Act 2009).

Research gap

Most of the researches discussed in the empirical review section were on the demand and supply side. They do not explain much on the side of the insurance companies and how they perform in terms of volume premium collections. Factors such as income, knowledge, age, awareness, low propensity to consume have put break to low propensity for life insurance. This is not necessarily because of considerations of affordability not because of inadequate range of insurance products and service Rajni (2008) but the major determining factor is lack of awareness of life insurance per se; and this phenomenon is not confined to rural and semi rural segments of society: it pervades urban populace as well. Most such persons cannot possibly pay for the care they would need if they were uninsured. They might be forced to deplete their assets and the risk to health and future earnings for such persons can be substantial and therefore they may be willing to buy insurance. Does the premium set by insurance companies ensue reasonably affordable to the potential customers? The researcher discovered that the factors influencing the performance of insurance companies in terms of volume of premium collected have not properly been explained in developing country like Tanzania.

RESEARCH METHODOLOGY

Research design and Data

The research followed a descriptive research design paradigm where time series data were used. Secondary Desk review off documentary data from annual reports, financial analysis reports and actuarial data were used. Desk review method was used to collect data from the annual financial reports from the NIC Ubungu Branch and NIC Headquarter offices. Other supplementary data were extracted from ISA and TIRA and these data covers the period of 15 years from 1995-2010. The period was selected so as to enable establishment of reasonable conclusion for the study. Data from TIRA and ISD were used to obtain data for other insurance market share performances. Interviews with key informants were used to the marketing experts and the company actuarial manager for clarification and verification of the contradicting observations.

Operationalisation of variables

Dependent variable

This study uses performance of life insurance services in Tanzania as a dependent variable. This performance is measured by the amount of net written premium collected so as to determine if the life insurance services trends in business. Premium means a consideration paid by insured or policy holder. A premium calculation for life insurance depends on the sum assured, age and occupation. Life premium is paid either on monthly, quarterly half yearly of yearly installment for the period of term of assurance.

This amount is measured in terms of Tanzanian Shillings. The researcher has used net written premium instead of gross premium since the gross premium contain the premium which is not for the company but for the reinsurance business. The gross premium is ceded to other insurance companies in or outside Tanzania who also contribute to the losses occur which are bared by NIC.

Independent Variables

The factors identified by the researcher which influence the performance of the life insurance services are the number of new policies written, the company market share, and the costs incurred in advertisement and marketing, the number of registered insurance companies as well as the early settlement of claims.

New Written Policies

A policy is an insurance contract which stipulates the benefits, the term of assurance, the name of the policyholder and installment payment. The number of new policies was obtained from the actuarial data reports by sorting yearly from 1995 to 2010 by using Microsoft excel.

The company's Market share

The company market share data were obtained from the ISD and TIRA annual reports were by they were measured by dividing company's gross premium to the total premium collected by all registered insurance companies in Tanzania. The market share is calculated in terms of percentage.

The costs of advertisement and marketing

The costs of advertisement means all costs incurred in marketing products, participating in products promotions, the entertainment expenses for corporate agents and brokers and other customers. A researcher obtained these costs from the NIC Annual Financial Reports for the period of 16 years.

The Registered Insurance Companies

Each year new insurance companies are formed and registered. A list of registered insurance companies obtained from the ISD/TIRA annual market reports. From 1963 when NIC was formed till 1997 when the economy was liberalized, there was only one insurance company providing both services of life and non life insurance. After the government introduced new policies of free market economy, many insurance companies where forms, some providing both life and non life services and other providing only life insurance. The researcher decided to establish whether the increase in number of insurance companies had any influence on the company’s life insurance services as this also lured the market share.

Life Insurance Companies

The available number of companies offering either or both life insurance products was used as a factor in determining the performance of life insurance. This was selected to find whether the company offering life assurance products have influence in the life performance in them of premium collection. This factor was selected in the context that if a company specialize on a given product, then the performance is expected to be the best.

Claims settlement

The claim in life means the maturity cases whose terms have expired. The claims settlement amount includes the matured claims as well as the long outstanding claims. It is assumed that the early and quick payments of claims do influence the company’s performance. These data were obtained from the NIC annual reports

Data processing and analysis

This study was quantitative in nature where descriptive statistics and bivariate correlation analysis were used to establish the relationship between study variables. Measures of central tendencies were mainly used for quantifying study variables. Karl Pearson’s coefficient of correlation was used to measure the degree of relationship between variables. The third method employed was Multiple Linear Regression Analysis to determine influences of life insurance. Equation 1 is a regression model employed.

$$Y = A_0 + A_1X_1 + A_2X_2 + A_3X_3 + A_4X_4 + A_5X_5 + A_6X_6 + e \dots\dots\dots(1)$$

- Where Y = dependent variable
- X₁₋₆ = Independent variables
- A₀ = Constant
- A₁₋₆ = are variable coefficients
- E = error term

Substituting with selected variables, equation 1 can be rewritten as seen in structural model 2.

$$PREM = A_0 + A_1NUMPOL + A_2 MARSHAR + A_3ADVERT + A_4REGINSUR + A_5 LIFCOY + A_6CLAIMSET +e .(2)$$

- Where:
- PREM = Net Written Premium as a measure of performance
- NUMPOL = Number of new policies written each year
- MARSHAR = Company’s market share in the industry
- ADVERT = Advertisement and Marketing costs
- REGINSUR = Total Registered Insurance Companies
- LIFCOY = Life Insurance Companies
- CLAIMSET = Claims Incurred and Settled
- e = error term

Theoretically, the coefficients A_1 , A_2 , A_3 , A_4 , A_5 and A_6 are parameter coefficients and they should be greater than 0.

Appendix 1 shows dataset for all the study variables. The data collected were audited and approved by the relevant authority. Data were processed and cleaned to compute study variables by use of MS Excel and as a results some relationships were obtained and graphs were drawn between variables so as to determine the relationships. Descriptive statistics methods do measure the relationship between the dependent and independent variables.

RESEARCH FINDINGS

Description of variables and their relationships

Relationship between the net premium collected and the variables influencing it

From the above figure, it can be seen that the net written premium increase with increase in the costs of marketing, the claims settlement, the number of life insurance companies as well as the number of registered insurance companies. But the number of new policies and the company market share decreases with increase in premium collections. At the beginning 1995-2001, premium collections were increasing with decreasing in the number of new policies written. These may be explained as the policies underwritten with low sum assured figures hence low amount of premium collections. The company market shares has an inverse relationship with the premium performance, the number of registered insurance companies as well as the number of life insurance companies increase with increase in the premium collections.

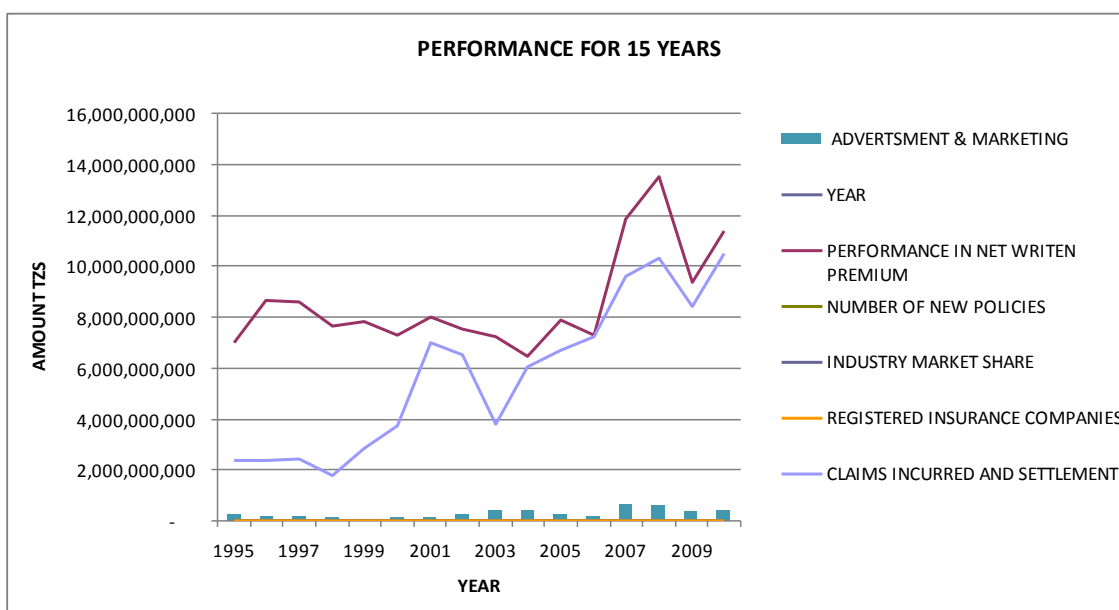


Figure 2: Relationship between the net premium collected and the variables influencing it
Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

The relationship between new policies in net written premium

From the graph 2, the new policies written have inverse relation with premium collected. At the beginning 1995, new policies written were many but the premium collected was low. This may be caused by the fact that the new policies are of small value of sum assured and as a results a many policies with little premium. Premium is calculated from the sum assured figures.

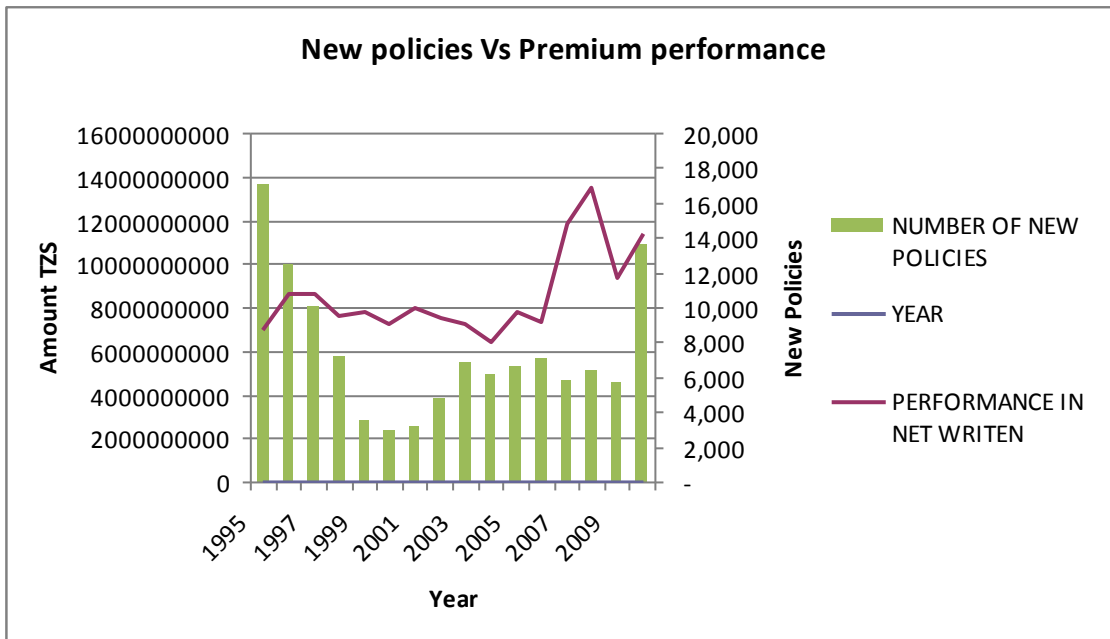


Figure 3: The effect of new policies in net written premium
 Data Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

Relationship between the net written premium and the company's market share

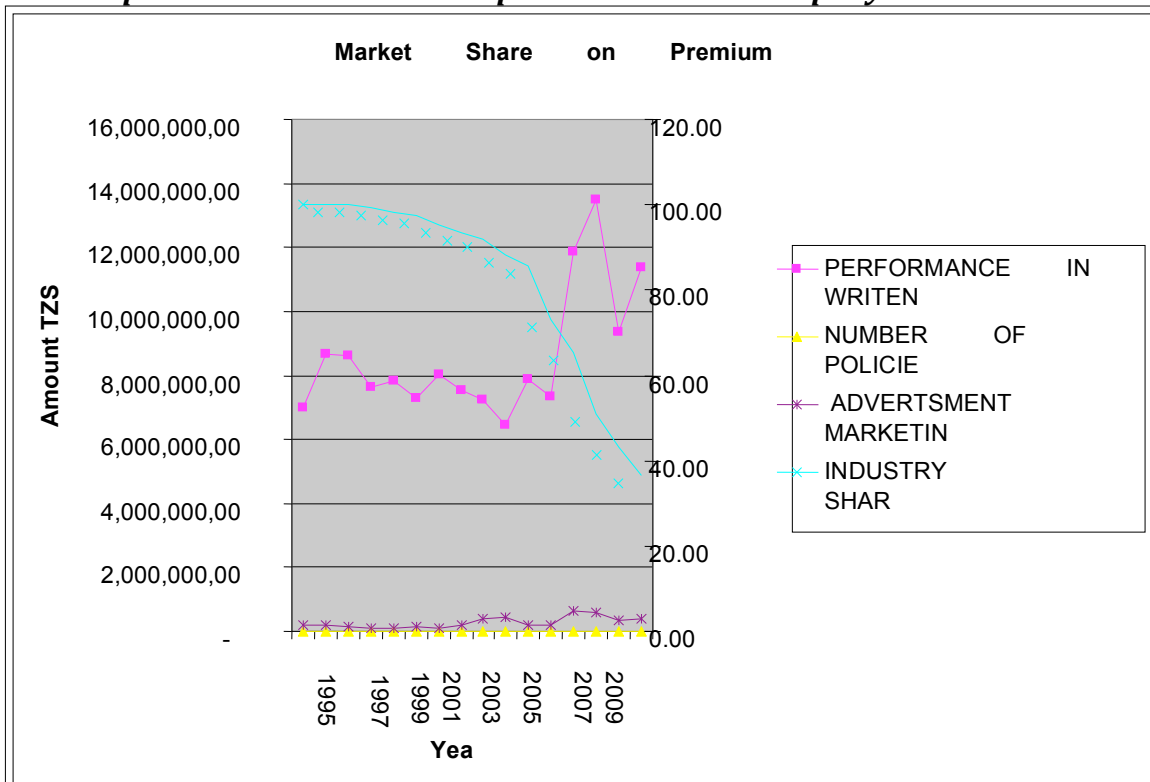


Figure 4: Relationship between net written premium and the company market share
 Data Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

Figure 4 shows that the market share has indirect relationship with the premium written. The marketing and advertisement costs have direct relationship with the premium collection. The graph shows that there is negative relationship between company performances and its industry market share. This result explains that when the market shares increases, the premium decreases. This can be caused by other factors which influence market share such as type of life products offered for example group life vs. individual life insurance or whether the

policies written are of small value of sum assured. Some companies can have lower market share but have higher net premium written.

Relationship between the net written premium and costs of advertisement

It can be seen in Figure 5 that the advertisement and marketing costs are directly related to the company's performance. For the period under study, the costs of advertisement have been increasing with increase in premium collections. When a company is a sole provider of a certain service, it might not need to incur a lot of costs to advertise the product. This is because the customer will automatically need its products as there are no competitors who may offer better customer services. These costs are worth when there is stiff competition among companies offering the same type of products. From the finding NIC do not spend too much on adverts may be because of percent it hold on the market share.

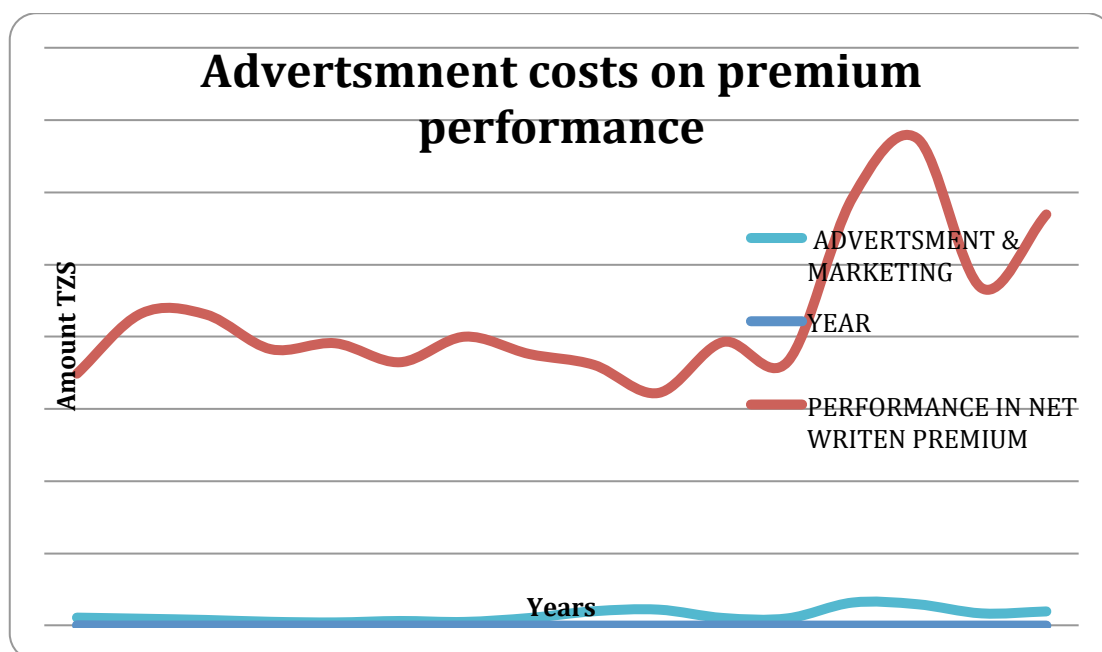


Figure 5: Relationship between costs of advertisement on premium performance
Data Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

Relationship between the net written premium and life insurance companies

The number companies providing life insurance services have a significant influence in premium collection performance. This is because the market share is reduced and at the same time few available companies fight for the same market. The number of insurance companies offering life insurance services are directly related to the company's life insurance performance. Figure 6 shows that there is direct relationship between the net written premium and the claims settlement. This may be so since the amount paid in settlement of claims is not only for the current period, but also the outstanding amounts results from past non payment of claims. Most of NIC claims were over due in the period under study and hence theirs payment did not mean that they were directly related to the collections of the premium for the same year. The theory behind insurance business is that the more you pay claims the more collection of premium as people will be motivated to write new policies.

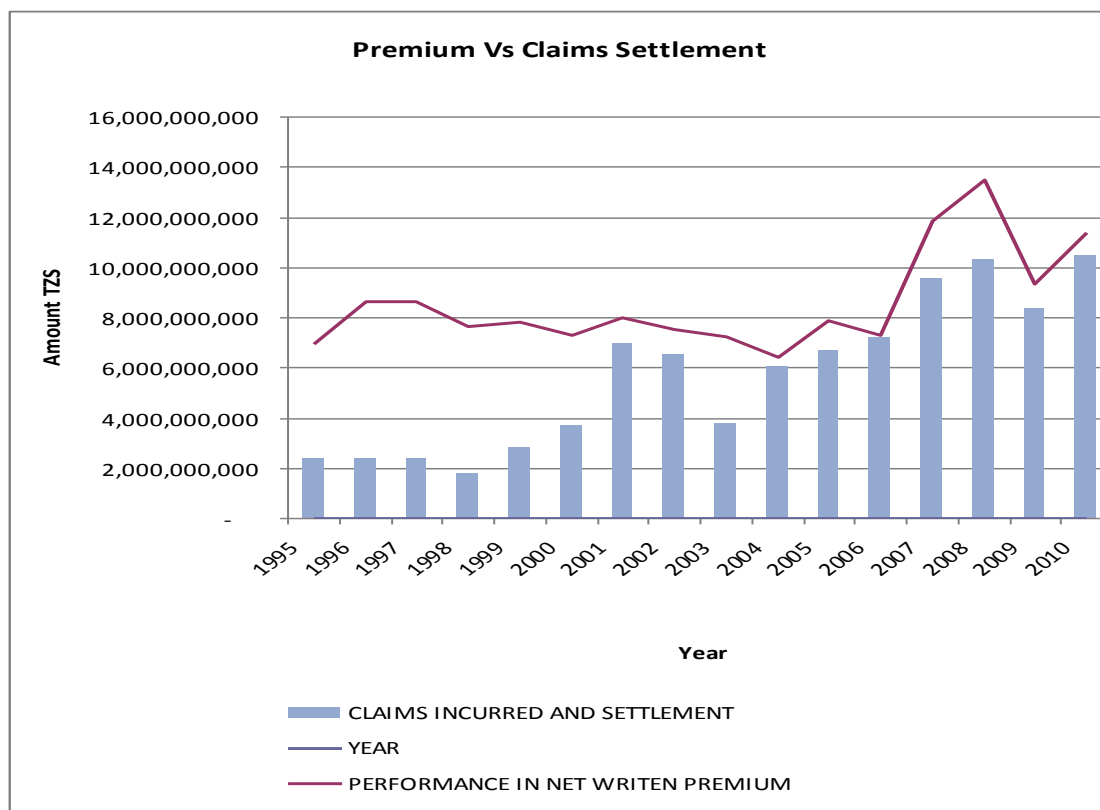


Figure 6: Relationship between net written premium and claims settlements

Data Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

Correlation analysis

Table 1 presents a bivariate correlation matrix for all the variables used in the regression analysis. Correlation analysis was done to observe the magnitudes and significance of the linear relationship between two independent variables and also between each independent variable and the dependent variable. This study has employed the Karl Pearson's coefficient of correlation (r) to assess the correlation among variables so as to determine the strength of the relationship. The value of r lies between +1 and -1. Positive values of r indicate positive correlation between the two variables whereas negative values of r indicate negative correlation. A zero value of r indicates that there is no association between the two variables whatsoever. The independent variables which have significant correlation coefficients to the premium collection include industry market share, advert and marketing costs, number of registered insurance companies and claims settlement costs. The Net written premium moves in the positive direction with number of registered insurance companies. Table 1 further shows that there is a significant linear relationship between the volume of premium collected and the number of registered companies at 5% level of significance. At the 1% level of significance, the premium collections increases with advertisement and marketing costs ($r' = 0.377$) and claims payments ($r' = 0.381$). However the industry market share changes in the negative direction with the premium collections ($r' = -0.438$), and the relationship is significant at 1% level of significance.

Table 1: Correlation analysis matrix for selected variables

		New Written Life Policies	Net Written Premium	Industry Market Share	Advert and Marketing Costs	Registered Insurance Companies	Life Insurance Companies	Claim Incurred and Settlement
New Written Life Policies	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	16						
Net Written Premium	Pearson Correlation	.078	1					
	Sig. (2-tailed)	.775						
	N	16	16					
Industry Market Share	Pearson Correlation	-.059	-.338**	1				
	Sig. (2-tailed)	.827	.001					
	N	16	16	16				
Advert and Marketing Costs	Pearson Correlation	.055	.377**	-.354**	1			
	Sig. (2-tailed)	.841	.004	.006				
	N	16	16	16	16			
Registered Insurance Companies	Pearson Correlation	-.283	.203*	-.477**	.410*	1		
	Sig. (2-tailed)	.289	.047	.000	.044			
	N	16	16	16	16	16		
Life Insurance Companies	Pearson Correlation	-.415	.373	-.382**	.403	.433**	1	
	Sig. (2-tailed)	.051	.155	.004	.121	.000		
	N	16	16	16	16	16	16	
Claim Incurred and Settlement	Pearson Correlation	-.175	.389**	-.368**	.381**	.333**	.362**	1
	Sig. (2-tailed)	.517	.003	.000	.004	.000	.001	
	N	16	16	16	16	16	16	16

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

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

Data Source: Appendix1 based on data from NIC, TIRA annual reports 1995-2010

The industry market share of the NIC shows to be negatively correlated with advertisement and marketing costs, the number of registered insurance companies, the number of life insurance companies and claims settlement amount. The coefficients between the industry market share and the advert costs are significant at the 0.01 level of significance. The coefficient of -0.354 shows that as the costs of advertisement and marketing increase, the industry market share decreases; hence there is a significant linear negative relationship between the two. The number of registered insurance companies increases with life insurance and claims settlement; and their relationship is significant at 0.01. In general terms, the bivariate correlation coefficients were not very large to pose multicollinearity threats in the regression analysis. Hence all independent variables were included in the regression analysis as explanatory side of equation 2.

Regression Analysis Results

Regression analysis was done to test the six hypotheses stated in section 1 of this paper. An Ordinary Least Squares Method (OLSM) was used to estimate equation (2) when there are more than two independent variables the analysis concerning relationship is known as multiple correlation and the concerning these relationship is known as multiple regression equation. As mentioned before the model is used to determine if the independent variables have statistical significant influence on dependent variables. An Ordinary Least Squares

Method (OLSM) was used to estimate equation (2). Table 2 presents regression analysis results and here follows we summarise findings for each stated hypotheses.

Table 2: Regression analysis results

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.089E7	8.420E6		3.668	.005
	New Written Life Policies	-112.366	114.615	-.123	-.980	.353
	Industry Market Share	-224753.329	76059.959	-.469	-2.955	.016
	Advert and Marketing Costs	1.956	2.538	.170	.771	.461
	Registered Insurance Companies	-804306.075	335109.242	-.355	-2.400	.040
	Life Insurance Companies	1.953E6	1.137E6	.160	1.717	.120
	Claim Incurred and Settlement	-.162	.284	-.0246	-.570	.583

a. Dependent Variable: Net Written Premium

Hypothesis 1 (H₁)

Table 2 indicates that there is a negative relationship between company performance and the number of new policies written each year under study. At the 5% level of significance, the negative influence of number of new written policies is insignificant to the company's performance in terms of volume of premium collected. Hence we accept a null hypothesis that there is no significant relationship between new policies and premium performance ($P=.353$). For each 100 new policies written, the premium is reduced by 12 Tanzanian shillings. This may not be surprising as the total amount of life premium collected may not be influenced by new policies rather than the former policies which are enforce, not yet matured. This is true for most of life insurance products since they take many years to mature up to 20 years. If a person has a super education provider policy, he contributes each month up to 20 years without renewing the policy unlike motor (non life) policies which are renewable each year. This relationship may be caused by the fact that the new policies are of small value of sum assured and as a results a many policies with little premium. Premium is calculated from the sum assured figures. This finding may justify that it is not necessary that many new policies will results into higher premium collection but only if these policies attract higher figures of premium and sum assured figures

Hypothesis 2 (H₂)

There is negative relationship between company performance and the industry market share each year (table 2). At 5% level of significance the negative influence of the market share is significant to the company performance in terms of the volume of premium collected. Hence we reject the null hypothesis that there is no significant influence of market share on premium performance. Some companies can have lower market share but still maintain higher premium collected. These companies may concentrate on life businesses which provide larger amount of premium and not necessary for them to be leaders in market share. This result explains that when the market shares increases, the premium decreases. This can be caused by other factors which influence market share such as type of life products offered for example group life vs. individual life insurance or whether the policies written are of small value of sum assured. Some companies can have lower market share but have higher net premium written. When NIC's market share was 100% the premium collected was still low. This can be explained by the factor that the policies were of little amount of sum assured which resulted into low figures of premium collected. The fact can be explained may be as most of the policyholders who took the life insurance where teachers, police force, and military people e.t.c. who are paid lower salaries as opposed to other cadre.

Hypothesis 3 (H₃)

It is indicated in table 2 that company performance increases with cost of advertisement and marketing each year under study but the influence is not statistically significant at 5%. Hence we accept a null hypothesis that there is no significant relationship between the advertisement costs and premium performance. For each shilling increase in the costs, the amount of premium increases only by TZS 17. The explanation behind this could be that when a company is a sole provider of a certain service; it might not need to incur a lot of cost to advertise the product. These costs are worth when there is stiff competition among companies offering the same type of products like mobile phone companies like Tigo, Airtel etc. hence it is worth for them to invest in marketing promotion for them and that much in insurance industry. When a company is a sole provider of a certain service, it might not need to incur a lot of costs to advertise the product. These costs are worth when there is stiff competition among companies offering the same type of products. From the finding NIC do not spend too much on adverts may be because of percent it hold on the market share.

Hypothesis 4 (H₄)

Regression results indicate that there is statistically significant negative influence of number of registered insurance company on the life premium collection. This result may be so due to the fact that the available registered companies are not offering only life insurance products hence being many in number they do not have a positive influence in the performance of the life insurance. The results imply that a 10% increase in registered insurance companies will lead to a 3.5% decrease the premium collected is reduced. The explanation may be that the additional companies could be offering other insurance products and as a result a customer may opt for other services.

Hypothesis 5 (H₅)

Results for hypothesis 5 show that there is no significant influence of number of life insurance companies on premium performance although the two variables are positively related. Sometimes there are benefits or extra products offered by a new company such as loans or bonuses which motivate people to require the services and thereby increasing demand for life insurance. This hypothesis holds true as it implies that the marketing campaigns are likely to increase due to increased competition thereby increasing awareness of the products offered including life insurance.

Hypothesis 6 (H₆)

Although the relationship between claims paid and life insurance is insignificant, regression results indicate that increase in payments of claims decreases life premium collections. Results in table 2 imply that a 100% increase in claims payment leads to only 2% decrease in demand for life insurance. The claims paid are long outstanding and not of the current period. So their settlement does not motivate people to take new policies or renew the previous ones. Also the delay in settlement may result into a situation where people surrender their policies. Even if a company uses a lot of its funds to settle claims, if these claims were long time overdue, the net effect is likely not improving the company's performance. It expected that the quick claim payments could motivate people to take new insurance policies or renew others. But from the observations in chapter four, there is indirect relation between the net written premium and claims settlement. This may be because the claims were of longtime and hence they were paid during the period under study. Late payment of claims results into people cancelling the already written policies or let them lapse as they refuse to bring premium.

CONCLUSION AND RECOMMENDATIONS

It is noted in the study that life insurance in Tanzania is still at its infancy stage compared to non life insurance. The study findings suggest that claims settlement, number of life insurance companies, costs of advertisement and new policies showed to have negative correlation with NIC's life insurance. Since NIC does offer both life and non life insurance, it is advised that the settlement of claims on non life insurance should be emphasized. Timely payment of claims will likely motivate people to purchase this product. The companies should also target higher paid customers who will underwrite higher sum assured hence premium collected increase as well as the company performance. NIC, being the only national insurance company in the country, the government may offer special treatment or impose some policies which will enable the company to improve premium collection. In developed countries, health insurance is mandatory as the other social security deduction such as PPF, NSSF. Government may decide to impose compulsory life insurance policies and laws. For instance it should be compulsory for all civil servants to take life insurance covers at NIC or give special exemptions for the company to pay some of the statutory taxes such as corporate tax, withholding tax etc. Given the difficulty in accessing data on life insurance, it is advised that NIC and other insurance companies should ensure they employ advanced techniques of data storage as well as accounting and insurance packages. This will ensure and enable proper record keeping and enable good and reliable more sound analysis of the company performance in terms of life insurance.

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APPENDIX 1: Data collected from NIC, ISD, TIRA annual reports from 1995-2010

Year	Performance in net written premium	Number of new policies	Industry market share	Advertisement & marketing	Registered insurance companies	Number of life assurance companies	Claims incurred and settlement
1995	6,972,474,900	17,163	100.00%	221,013,061	1	1	2,365,346,735
1996	8,645,348,377	12,522	100.00%	190,631,947	1	1	2,398,101,616
1997	8,616,000,000	10,126	100.00%	156,279,765	1	1	2,405,105,458
1998	7,655,280,334	7,211	99.50%	105,359,609	11	4	1,792,022,533
1999	7,818,976,091	3,559	98.20%	88,137,880	11	4	2,864,451,161
2000	7,293,877,094	3,019	97.30%	127,417,455	11	4	3,714,898,449
2001	8,001,231,012	3,258	95.10%	101,913,333	11	4	6,986,872,987
2002	7,521,930,233	4,881	93.40%	209,708,295	11	4	6,533,054,691
2003	7,221,012,000	6,870	92.08%	397,036,400	12	4	3,778,322,000
2004	6,443,222,000	6,185	88.36%	442,003,271	13	4	6,063,723,000
2005	7,854,476,000	6,632	85.72%	210,262,712	14	5	6,701,813,000
2006	7,313,257,000	7,149	73.03%	200,509,614	17	5	7,233,621,000
2007	11,844,706,000	5,890	65.20%	637,320,160	18	5	9,603,055,000
2008	13,496,451,000	6,387	51.10%	591,820,485	18	5	10,308,994,000
2009	9,346,220,000	5,713	43.30%	338,075,567	24	5	8,415,561,000
2010	11,387,074,000	13,677	36.50%	392,578,000	27	6	10,491,172,000

Source: NIC, TIRA Annual Reports 1995-2010



Comparative Analysis of Alternative ODL Delivery Modes using Input-Process-Output Model in ODL Institutions: Evidence From The Open University Of Tanzania

Deus D. Ngaruko

Faculty of Arts and Social Sciences

Open university of Tanzania

deus.ngaruko@out.ac.tz

ABSTARCT

The production of quality human resources in Africa is crucial in order to cope with continent's growth potential. ODL institutions are better placed to fill the human resource gap that Africa is likely facing. Many African ODL institutions have accelerated production of sufficient number of qualified graduates at various levels by increasing access to education, especially for those attending postgraduate programmes. Different delivery modes have been used to make learning more flexible and more accessible as much as possible without affecting quality of graduates (output). This paper undertakes a comparative analysis of the three dominant delivery modes for postgraduate programmes at the Open University of Tanzania: distance mode, evening classroom mode and executive classroom mode. The paper applies the Input-Process-Output (IPO) model of learning to assess the extent at which the delivery modes may differentially correlate with motivation to learn and hence desired quantity and quality human resource outputs that Africa lacks. Analysis of variance and regression analyses were done based on data extracted from Students Academic Register Information System from OUT for 94 graduates. The results indicate that there is significant difference in desired educational quality output amongst delivery modes. Higher performers were most associated with executive classroom oriented modes of delivery as compared to evening classroom and distance modes. This study supports the notion that classroom delivery modes facilitate motivation to learn more than distance mode. This paper recommends that for the distance mode of delivery to deliver quality outputs, it must be complemented with online learning facilities.

Key words: distance mode, evening classroom mode, executive classroom mode, comparative analysis, quality output

BACKGROUND AND OBJECTIVES

Open and Distance Learning (ODL) has been driven mostly by learners' needs and the diversification of media used in instruction. Many of the educational technologies adopted by both ODL and conventional institutions, such as e-mail, fax, video and audio-video conferencing, have risen in the past 30 years. The same period has also witnessed the phenomenon of mass participation of diverse groups in the educational process. The diversifying clientele has brought the educational planners to defining and formulating a variety of delivery modes and curricula to meet its needs. Mishra et al (2002) points out that ODL, while not insisting on the presence of a human teacher at all times, recognises the importance of including the teaching function in the learning experience. That teaching function may be embedded in self-study materials, which may be used in conjunction with teaching-learning experiences that require interpersonal interaction. Such interaction may take place in a face-to-face setting or through telecommunications technologies. Innovation and development of the blended learning mode has marked the realization of enhancing

education opportunity to many people from different backgrounds. The blended characteristic features allow for meeting requirements of heterogeneous groups of learners at affordable cost and timely. The four most popular delivery modes for taught postgraduate programmes at OUT are outlined in the subsequent sections.

Distance Mode

This is a learning mode where students are given detailed course outlines and a list of reading materials and they appear for general face to face sessions of about 4 days twice a year. The face to face sessions are mainly for research methodology course and for orienting students on how to undertake research for their dissertations and theses. The students appear for a main test in April and final exam in June for each course. Coursework for a master programmes at OUT involves between 6-9 courses (modules). The tuition fee for this delivery mode is about USD1500 for the entire programme for SADC members.

Blended Distance mode

This a modified version of the distance mode in that students use e-learning platform (MOODLE) which is internet based; where students have opportunity to virtually interact with other students taking same course and with lecturers of the respective course. Students must attend a 5 days Face to Face residential training on how to use the MOODLE platform. The e-learning platform enables students to engage in discussions guided by their instructors. This mode costs about USD 2500 for the entire programme.

Evening Mode

In addition to using e-learning platform (MOODLE), evening mode requires students to attend face to face lectures for three work days a week- 3 hours per day from 1700HRS-2000HRS until the course is covered. The lectures can also be offered over the weekends only from 0800HRS – 0500HRS on Saturdays and Sundays respectively. Breakfast and Lunch are served. The tuition fee for this mode of delivery is about Tsh. USD 2000 for evening (weekdays) or about USD 3000 for evening (weekend)

Executive Mode

Executive Mode requires students to attend face to face sessions for about three weeks consecutively for about 3 times for the entire coursework. Lecturers cover difficult areas and students do intensively interact amongst themselves and exchange experiences. There is a break of about 2 months in between the sessions during which students continue to use the e-learning platform. Students are served with breakfast and lunch since lectures start from 0800HRS to 1500HRS. This costs about USD 3500 for the entire programme.

The three modes of delivery covered in this study are conventional to most ODL institutions are distance, evening and executive. The modes have not blended the learning to utilise more of the new developments in ICTs. One of the delivery modes that is currently picking up at OUT is the Hybrid/blended mode involving shorter executive classroom lectures and longer internet based learning through online interactivity between lecturers and students. Students who are pursuing their studies through blended mode are expected to graduate from 2014 graduation hence not involved in the current study. The varying delivery modes strategy has strength because it builds upon the good things the OUT is known for: enabling one to study while working. The delivery modes have been in place in the last 10 years. It is high time that they modes are evaluated to make informed decisions on their effectiveness in giving desired outputs by both students and the University. It is expected that the findings of this study will inform applicants when choosing a learning mode and when the university is designing curriculum contents for new and reviewing curriculum of ongoing curriculum contents. The

main objective of this paper is to make comparison analysis of the three popular delivery modes: distance, executive and evening by applying the Input-Process-Output (IPO) model. The paper has three specific objectives: to examine relationship between learning mode and output quality, to identify important determinants of student's choice of learning mode and to examine the influence of learning mode on output quality

HEORETICAL FRAMEWORK

Learner-centred theories

Two theories seem to provide theoretical justification for understanding effectiveness of learner centred (delivery) modes adopted by ODL institutions. The first theory is the "learner-centered theory" adopted from 'Person-Centered Learning' developed by the American psychologist Carl Rogers (1951) as a method in counseling psychology. The second theory is the "adult-learner theory" developed by Malcolm Knowles's (1984). The learner-centered theory acknowledges the fact that learning should encompass the whole person by ensuring that learner is the central focus in learning process. The implication is that planning of the course, curriculum development, mode of delivery etc has to consider learners views. Person-centered education, also known as the learner-centered model of instruction, focuses on developing real-life skills, such as collaboration, higher-order thinking, and problem-solving skills, and better meets the complex needs of the information age (An-Yun-Jo, and Reigeluth, 2011-2012). Person-centered education is characterized by personalized and customized learning, social and emotional support, self-regulation, collaborative and authentic learning experiences, and assessment for learning. As noted by (Motschnig-Pitrik and Santos, 2006), to ignore the whole person while educating is to lose a golden opportunity to fulfill the true meaning of education, which is to enrich people's lives.

Knowles developed a field of adult learning termed *andragogy* and he studied adult learners for 35 years according to adult (Kisamore et al., 2008). Texts and teachers play a new and secondary role in adult education: they must give way to the primary importance of the learners (Lindeman, 1926). Knowles's andragogical model is based on several assumptions: (a) the need to know, (b) the learner's self-concept, (c) role of the learner's experiences, (d) readiness to learn, (e) orientation to learning, and (f) motivation. Adult learners are surrounded by various challenges which make their engagement in learning unique. They have many responsibilities to accomplish at the same time such as work, recreation, family life and community life. Adult learners find ways to intervene these situations when needed.

Several definitions have been used to describe adult learners. Malcolm Knowles's definition of the adult learner is that one has arrived at a self-concept of being responsible for one's own life, of being self-directed (Kisamore et al., 2008). Some simply look at the age of the learner and define adult learners as anyone over the age of 20, and some feel that the setting defines the adult learner. In other words, if learners are in community college, university, or work setting, they are adult learners. As the population ages and life expectancy lengthens, educators can expect more adult learners (Kisamore et al., 2008). A generation is shaped by highly significant events during the coming-of-age experiences between youth and adulthood (Strauss, 2005). These events define a generation and determine the traits and attitudes that distinguish one generation from another. Because of their shared experiences, generations often share values and behaviors as well as bring common approaches and ideas to the workplace and classroom (Lancaster & Stillman, 2002). Andragogy ties in with generational differences as increasingly generations collide in the classrooms of academia (Howe & Strauss, 2000). The present study has adopted andragogy ties because distinct and different generations are blending in the postgraduate programmes under study.

Approaches to Evaluation of Training

Based on prior works by Bramley (1991) and that of Worthen & Sanders (1987) Eseryel (undated) summarizes six general approaches to educational evaluation as follows:

- Goal-based evaluation
- Goal-free evaluation
- Responsive evaluation
- Systems evaluation
- Professional review
- Quasi-legal

According to Eseryel the goal-based and systems-based approaches are predominantly used in the evaluation of training (Philips, 1991). It was further pointed out that various frameworks for evaluation of training programs have been proposed under the influence of these two approaches. Table 1 presents a comparison of several system-based models (CIPP, IPO, & TVS) with a goal-based model (Kirkpatrick's). Goal-based models (such as Kirkpatrick's four levels) may help practitioners think about the purposes of evaluation ranging from purely technical to covertly political purpose. However, Eseryel (ibid) argues that these models do not define the steps necessary to achieve purposes and do not address the ways to utilize results to improve training. The difficulty for practitioners following such models is in selecting and implementing appropriate evaluation methods (quantitative, qualitative, or mixed). Because of their apparent simplicity, "trainers jump feet first into using [such] model[s] without taking the time to assess their needs and resources or to determine how they'll apply the model and the results" (Bernthal, 1995, p. 41 cited in Eseryel, undated,). Naturally, many organizations do not use the entire model, and training ends up being evaluated only at the reaction, or at best, at the learning level. As the level of evaluation goes up, the complexities involved increase. This may explain why only levels 1 and 2 are used. The current study will use the IPO Model for evaluating the delivery modes up to level 3 of evaluation because of data availability.

Table 1 Goal-based and systems-based approaches to evaluation

Kirkpatrick (1959)	CIPP Model (1987)	IPO Model (1990)	TVS Model (1994)
1. Reaction: to gather data on participants reactions at the end of a training program	1. Context: obtaining information about the situation to decide on educational needs and to establish program objectives	1. Input: evaluation of system performance indicators such as trainee qualifications, availability of materials, appropriateness of training, etc.	1. Situation: collecting pre-training data to ascertain current levels of performance within the organization and defining a desirable level of future performance
2. Learning: to assess whether the learning objectives for the program are met	2. Input: identifying educational strategies most likely to achieve the desired result	2. Process: embraces planning, design, development, and delivery of training programs	2. Intervention: identifying the reason for the existence of the gap between the present and desirable performance to find out if training is the solution to the problem
3. Behavior: to assess whether job performance changes as a result of training	3. Process: assessing the implementation of the educational program	3. Output: Gathering data resulting from the training interventions	3. Impact: evaluating the difference between the pre- and post-training data

4. Results: to assess costs vs. benefits of training programs, i.e., organizational impact in terms of reduced costs, improved/increased quantity of work, etc.	4. Product: gathering information regarding the results of the educational intervention to interpret its worth and merit	4. Outcomes: longer-term results associated with improvement in the corporation's bottom line- its profitability, competitiveness, etc.	4. Value: measuring differences in quality, productivity, service, or sales, all of which can be expressed in terms of dollars
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Source: Eseryel (Undated) Approaches to Evaluation of Training: Theory & Practice. Syracuse University, IDD&E, 330 Huntington Hall Syracuse, New York 13244 USA

A detailed conceptual framework of this study is grounded on IPO model as outlined in the subsequent section.

Input-Process-Output Model

IPO model is one of the most popular paradigms in assessing team effectiveness in organizations effectiveness. In education, have been used by different authors for quality classification in higher education (Chua, 2004) and in evaluating motivation to learn and course outcome (Klein et al, 2006). IPO models might differ in several aspects but have in common that specific “input factors”, for example, learner characteristics, lead to an “output” in form of academic performance on the other side. The influence of the input factor on the output factor is mediated via “processes”. This implies that resources of a group are transformed into a product via several processes. Important input factors are for example team leadership and group structure. In the recent literature, I-P-O models are extended to I-P-O-I (Input-Process-Output-Input) models, whereby researchers argue that input is influenced by output in reverse as well (e.g. Ilgen, Hollenbeck, Johnson, & Jundt, 2005). In the current study we also include a lagged output variables to become “inputs” influencing processes.

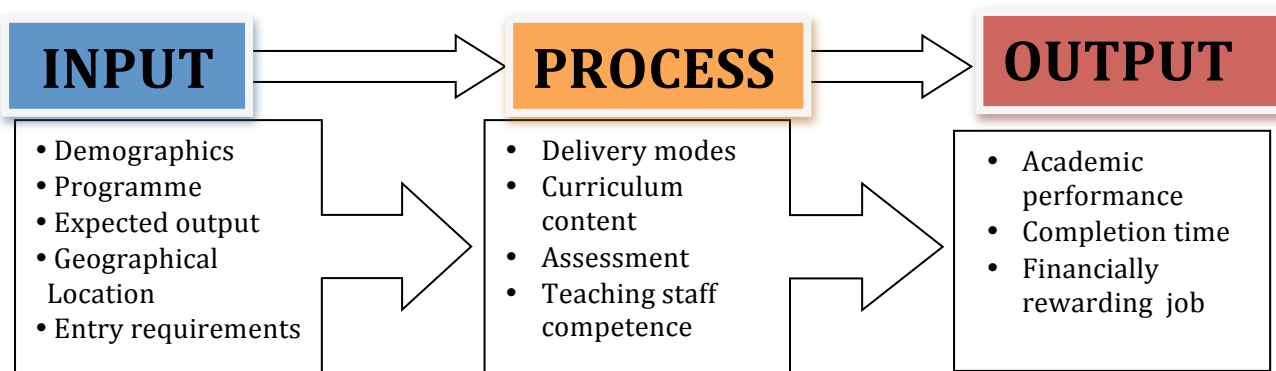


Figure1: Input-Process-Output Model for comparison assessment among delivery modes

In the current study “input” refers to the entry requirements. In Figure 1 thus input factors are extended to include all factors that can be manipulated in order to change processes and outcomes (Cohen & Bailey, 2007) like students demographic characteristics (age, geographical location), study programme and perceived programme quality reflected in completion time and performance in terms of great point average (GPA). “Process” refers to the teaching and learning process, curriculum content, number of courses (modules) and competence of instructors. In the current study delivery (teaching and learning) modes was proxy measure for “process factors”. Three modes of delivery were considered: executive mode, evening mode and distance mode. It is hypothesized that these delivery modes induce learners’ motivation to learn differently hence difference in their output (performance). “Output” refers to the employability and academic performance in terms of GPAs, completion time and score on research competence (as shown in Figure 1). This classification of quality attributes is in

accordance with the organization's operation system of converting the inputs (e.g. raw materials) into outputs (e.g. products and services) via the process (e.g. procedures). In this way, one can associate the quality improvements with the operating system of any organization, including those from the education sector (Chua, 2004). In addition, some of the quality dimensions identified in Owlia and Aspinwall's (1996) study are partially covered in the IPO model outlined in Figure 1.

The IPO model in Figure 1 suggests that the delivery mode-learning outcome relationship is mediated by active learning states including motivation to learn. The IPO model suggests that delivery modes (such as instruction and distance learning) may differentially impact motivation to learn and subsequent learning outcomes such as GPAs and completion time.. Specifically, the model presented in Figure 1 shows that course outcomes are a direct result of motivation to learn. Motivation to learn is influenced by learner characteristics, curriculum content and home region). Specific hypotheses for each of the relationships shown in Figure 1 are therefore presented as

- **Hypothesis1:** There is no difference in academic performance across all the delivery modes under study
- **Hypothesis2:** Preference for classroom face to face learning mode is more influenced by age of the learner than the expected GPAs or completion time
- **Hypothesis 3:** Academic performance more than any other factors, is significantly influenced the type of learning mode.

RESEARCH METHODS

Sampling design and data

This research paper is based on the desk review of data extracted from 94 postgraduate students who graduated in various taught programmes in 2012 and 2013 graduation ceremonies. Lists of graduands in the two graduations' booklets were used as sampling frames in which about 510 graduands were involved in the desk review. The graduates' particulars were extracted from Students Academic Register Information System (SARIS). The choice of sampling units in the sampling frame was done through systematic random sampling where every 5th candidate was picked for further search in candidate's SARIS page. Data were collected on the variables outlined in table 2.

Table 2 Variables used in the study and their operationalisation

Variable	Description	Measure	Type
Input			
Sex	Ex of the graduate	1=Male 2=Female	Nominal categorical
Age	Graduates age	Years	scale
Programme	Candidate's Programme	1=MBA, 2=MHRM 3=MCED etc	Nominal categorical
Region	Candidate's home region	1=Dar 0=Others	Nominal Categorical
Process			
Delivery mode	Delivery/learning mode	1=Executive 2=Evening 3=Distance	Nominal categorical
Courses	Number of courses taken	Number	Scale
Output			
GPA	Great point average	Mean score	scale
Completion	Years taken to graduate	Years	Scale
Research quality	Score on dissertation	Numerical grade	scale

Data analysis

Three types of quantitative data analysis methods were used to test the stated hypotheses:

- Independent samples t-tests and Analysis of Variance (ANOVA) was used for hypothesis 1 where the test variable considered was GPA
- Binary Logistic regression analysis was used to test for hypothesis 2, and
- Linear regression analysis was used for hypothesis 3

RESEARCH RESULTS

Description of the sample

The study sample involved SARIS records for 94 graduates from six popular postgraduate programmes as seen in Fig 2c. Two programmes (MBA and MCED) accounted for 78.7% of the sample because these programmes are the most popular at the Open University of Tanzania. The two programmes account for almost same proportion of graduates every year. Whereas MBA is offered through all the three modes of delivery under study, MCED is offered only through executive mode. Figure 2a indicates that executive mode had the largest proportion (47.9%) with the other two modes (evening and distance) with relatively more equal representation. Most graduates were coming from Dar es Salaam (67%) as shown in Fig2b. This is more is not a surprise since Dar es Salaam is an educational hub for Tanzania. The sample comprised of 70% male and 30% female graduates. This is so due to more or less same distribution in enrolment and graduation across the university. The sample was randomly selected as elaborated in previous section hence this normal gender distribution of the OUT graduates.

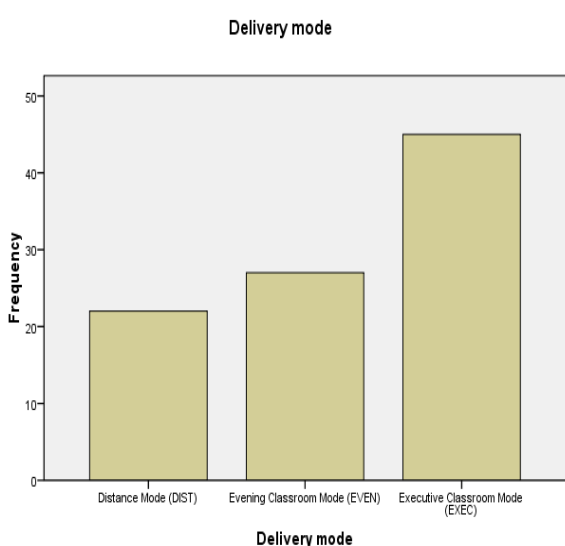


Fig 2a: Delivery mode chosen by learner

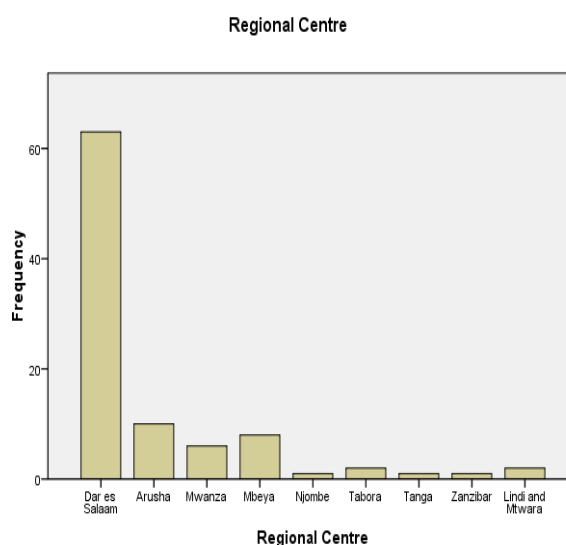


Fig 2b: Graduate's Regional centre

Table 3: Graduates distribution by gender

		Graduate's sex			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	70	74.5	74.5	74.5
	Female	24	25.5	25.5	100.0
Total		94	100.0	100.0	

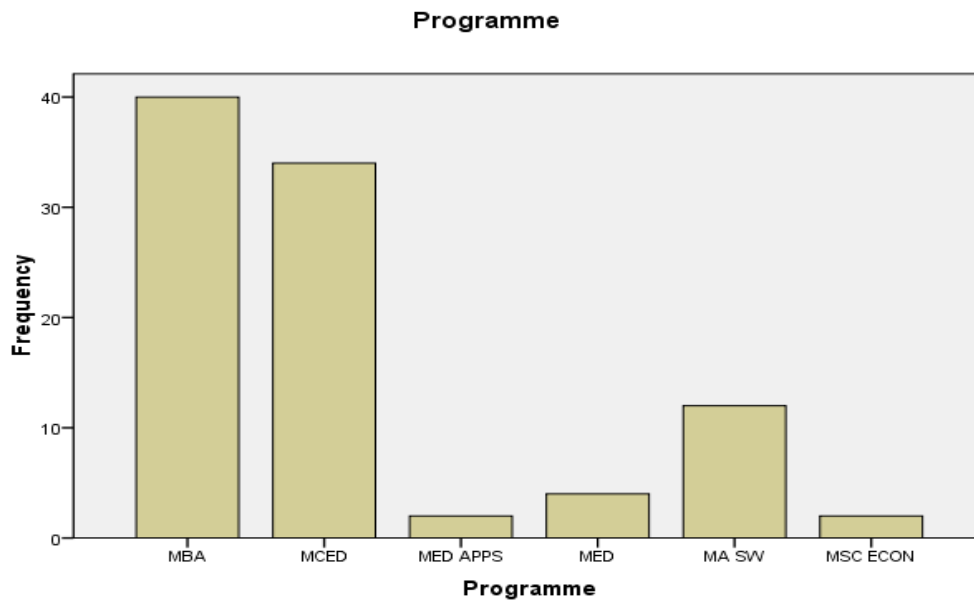


Figure 2c: Distribution of graduates by programme

Relationship between learning mode and output quality (academic performance)

Table 4a presents descriptive statistics for some quantitative variables in the sample. GPA for executive classroom mode had mean GPA above overall mean GPA with evening mode having lowest minimum GPA. The maximum GPA was 4.8 for evening and executive modes. The overall mean completion time is 2.72 years with that for executive mode being the lowest below overall mean. The executive mode seems also to have the lowest maximum duration for completion of 3 years followed by 7 years for distance mode and the longest being for evening (9 years). A score on quality on research is the lowest in distance mode and highest evening mode whose score (3.63) is above overall mean score. However none of the delivery mode had a score of 4 or above (equivalent to A grade).

Table 4a Descriptive statistics for performance variables used in ANOVA

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
GPA	Distance Mode (DIST)	22	3.868	.4122	.0879	3.3	4.7
	Evening Classroom Mode (EVEN)	27	3.830	.4436	.0854	3.1	4.8
	Executive Classroom Mode (EXEC)	45	3.967	.2892	.0431	3.2	4.6
	Total	94	3.904	.3698	.0381	3.1	4.8
Completion duration (years)	Distance Mode (DIST)	22	3.43	1.664	.355	1	7
	Evening Classroom Mode (EVEN)	27	3.30	2.216	.426	1	9
	Executive Classroom Mode (EXEC)	45	2.02	.499	.074	1	3
	Total	94	2.72	1.602	.165	1	9
Score on research methods and dissertation (numerical grade)	Distance Mode (DIST)	22	3.14	.990	.211	1	5
	Evening Classroom Mode (EVEN)	27	3.63	.926	.178	2	5
	Executive Classroom Mode (EXEC)	45	3.27	1.095	.163	1	5
	Total	94	3.34	1.032	.106	1	5

ANOVA results in table 4b show no statistical significant difference amongst delivery modes (Sig >0.05) in terms of GPAs and score on research methods and dissertation. The difference is

however more pronounced in terms of completion duration. The observations made in table 4a in relation to completion duration are statistically confirmed (at 5% significance level) where executive mode showed to have the lowest completion duration followed by distance and longest completion duration for evening mode.

Table 4b Delivery modes ANOVA

Performance variable				Sum of Squares	df	Mean Square	F	Sig.
GPA	Between Groups	(Combined) Linear Term	Unweighted	.354	2	.177	1.304	.277
			Weighted	.143	1	.143	1.055	.307
			Weighted	.211	1	.211	1.556	.215
			Deviation	.143	1	.143	1.051	.308
	Within Groups			12.364	91	.136		
Total				12.718	93			
Completion duration (years)	Between Groups	(Combined) Linear Term	Unweighted	42.024	2	21.012	9.718	.000
			Weighted	29.360	1	29.360	13.579	.000
			Weighted	36.018	1	36.018	16.658	.000
			Deviation	6.006	1	6.006	2.778	.099
	Within Groups			196.755	91	2.162		
Total				238.779	93			
Score on research methods and dissertation (numerical grade)	Between Groups	(Combined) Linear Term	Unweighted	3.419	2	1.710	1.626	.202
			Weighted	.251	1	.251	.239	.626
			Weighted	.022	1	.022	.021	.885
			Deviation	3.397	1	3.397	3.230	.076
	Within Groups			95.687	91	1.052		
Total				99.106	93			

Determinants of student's choice of learning mode

Table 5a shows that the likelihood of choosing executive mode decreases with increasing age, being a female or coming from Dar es Salaam. Increase in number of courses (modules) for a given programme increases likelihood of one choosing executive classroom mode of learning. This implies that age, being female and coming from Dar is more associated to increasing likelihood of the probability to prefer distance mode compared to other modes (table 5b).

Table 5a Binary Logistic Regression analysis: Executive Mode=1

	B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 ^a AGE	-.038	.034	1.282	1	.257	.963
Sex1	-.552	.581	.903	1	.342	.576
RC1	-.076	.638	.014	1	.905	.927
Course	.157	.101	2.439	1	.118	1.170
Constant	1.485	2.109	.496	1	.481	4.414

a. Variable(s) entered on step 1: AGE, Sex1, RC1, Course.

Table 5b further shows that although the two input factors: number of courses and coming from Dar are though not statistically significant, they negatively influencing likelihood of choosing distance mode at 5% significance level.

Table 5b Binary Logistic Regression analysis: Distance Mode=1

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 ^a	AGE	.038	.034	1.282	1	.257	1.039
	Sex1	.552	.581	.903	1	.342	1.737
	RC1	.076	.638	.014	1	.905	1.079
	Course	-.157	.101	2.439	1	.118	.854
	Constant	-1.485	2.109	.496	1	.481	.227

a. Variable(s) entered on step 1: AGE, Sex1, RC1, Course.

Table 5c illustrates that the likelihood to increase probability of choosing evening mode is positively influenced by number of courses in a programme. Increase in number of courses in a programme increases likelihood that student will opt for evening mode. This influence is statistically significant at 0% level of significance. On the other hand the increase in age and being a woman have a negative influence on the likelihood that candidates would choose evening mode. However this influence is very insignificant ($P > 20\%$)

Table 5c Binary Logistic Regression analysis: Evening Mode=1

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	AGE	-.004	.039	.013	1	.911	.996
	Sex1	-.440	.693	.404	1	.525	.644
	RC1	.795	.666	1.423	1	.233	2.214
	Course	.455	.099	21.348	1	.000	1.577
	Constant	-6.420	2.246	8.169	1	.004	.002

a. Variable(s) entered on step 1: AGE, Sex1, RC1, Course.

Results in tables 5(a-c) suggest that none of the input variables had statistically significant impact on candidate's choice of either distance or executive modes.

The impact of delivery mode on educational output quality

The third objective in this research was to explore the impact of delivery mode on educational quality output. Table 6 summarises linear regression results for three output measures: GPA, completion duration and score on research and dissertation. To avoid dummy variable trap, for each model analysis, only one of the dummies for delivery modes was used at a time. Table 6 shows that executive delivery mode has a negative influence on GPA and completion duration but with a positive influence on score on research and dissertation. However, the executive mode's influence is only significant for completion duration. This implies that executive mode is more linked to completing studies more timely (shorter time) but not necessarily on the other quality attributes. This finding, though not significant, suggests that executive mode is associated with low GPAs but with higher scores on research and dissertation.

Like the executive mode, the distance delivery mode has a negative influence on GPA and the influence is statistically significant at 10% level of significance ($P < 0.10$). Although insignificant, the distance mode is positively associated with increase in completion duration and research score. These findings suggest that for students who study through distance mode are likely to have lower GPAs than if they had to opt for other delivery modes. In addition, unlike other delivery modes, distance mode is the only mode with positive influence on completion duration implying that those studying through distance mode spend relatively longer to complete their studies.

The evening mode of delivery has positive influence on GPA and negative influence on both completion duration and score on research. However the influence of the distance delivery mode is only statistically significant on completion rate even higher than that of executive mode. This implies that students opting for distance mode of learning tend to spend shorter duration possible to complete their studies. This finding is contrary to the widely conceived perception that distance mode is associated with longer completion period especially for undergraduate studies.

Table 6 Influence of learning mode on output quality

Explanatory variables	Significance of standardized coefficients (beta)		
	Model 1: GPA model	Model 2: Completion Duration Model	Model 3: Score on Research Model
(Constant)	4.273	-.896	2.178
Mode of delivery Executive=1	-.062	-.270**	.018
Mode of delivery Distance=1	-.197*	.132	.103
Mode of delivery Evening=1	.103	-.336**	-.068
Number of courses	-.130	.265**	.334**
Completion duration (years)	-.127	NA	-.212**
Score on research methods and dissertation (numerical garde)	.450***	-.210**	NA
Graduate's age (years)	-.287*	.343**	.260**
Sex Female=1	.026	-.009	-.221**
RC Dar=1	.096	-.068	-.096

***=significant at 0% **=significant at 5% *=significant at 10%

CONCLUSION

The IPO model seems to be more useful in terms of thinking about the overall context and situation but it may not represent the dynamic interactions between the design and the evaluation of training. In addition, care should be taken in identifying the factors for input, processes and output. These factors need to be embedded in the curricula of the programme in terms course content and assessment. It is found in this paper that input factors are very crucial in determining educational quality rough processes (delivery modes). Each of the delivery modes is important in its own ways depending on nature of input factors (eg applicants profiles) and expected of the programmes output. Following the profile of students enrolling in ODL and their motive for undertaking studies it is likely that a variety of delivery modes would fit in and include any applicant thereby giving wider educational opportunities. The educational quality output factors need to be more inclusive of non conventional quality attributes. The current study has considered only three measures of educational quality outputs (GPA, completion duration and score in research and dissertation) and found out that most delivery modes are more associated with completion duration than the other two quality outputs. This implies that when designing the processes (delivery modes), timely completion of studies should be taken due consideration. Overall assessment from this study implies that the classroom based delivery modes (executive and evening) are more associated with timely (shorter) completion duration whereas distance mode is more associated with higher GPAs.

This study's findings conform to previous evaluation study of hybrid learning mode at OUT. In their current study on staff and students' perceptions on effectiveness of blended mode of learning at OUT, Ngaruko and Makuu (2013) observed that though the blended learning mode could be the best to fit students' time both at work and at home, still face to face sessions are important. This implies that conventional physical integrations between instructors and students need to complement the online modes of learning. To create this type of student engagement in the online world, students should have the five interactive experiences; student-to-student, student-to-teacher, student-to-community, student-to-material, and student-to-technology. If an online program/class is able to build this type of learning environment, the students will have one of the most exciting and memorable encounters of their educational experience hence desired output (academic performance). The findings from this study suggest that the most appropriate mode of delivery that ensures effective and inexpensive way to enhance learning should have a combination of face-to face class time and self-study with online components.

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Exchange Rates, Stock Prices, and Commodity Prices: Are There Any Relationships?

Yutaka Kurihara
Aichi University Japan

Akio Fukushima
Seijo University Japan

ABSTRACT

Since the 2008 financial crisis, commodity (e.g., gold) transactions have received much attention, along with the rising prices, instead of currencies such as the US dollar. On the other hand, the relationship between stock prices and exchange rates has been analyzed in the past; however, the findings seem ambiguous and no consensus about the relationship has been obtained yet. The relationship varies depending on the time, currency, kinds of stocks, and so on. One reason is the omission of commodity prices. This study shows that the relationship between stock prices and the exchange rate is weak. In Japan, the exchange rate has a significant impact on commodity prices. There is a possibility that commodity prices can be related to the relationship between stock prices and exchange rates. However, the relationship cannot be found for the Euro area. The relationship between exchange rate and commodity prices and also the relationship between commodity prices and stock prices should be taken into account when analyzing the relationship between exchange rate and stock prices.

Keywords: commodity price; exchange rate; Euro area; Japan; stock price

INTRODUCTION

The relationship between stock prices and exchange rates has received much attention since the introduction of floating exchange rate system in developed countries in the 1970s. Since then, liberalization and deregulation of international financial markets and rapid volume growth of transactions in international trade and financial assets have been ongoing. The growth of international financial transactions should be noted especially.

After the financial crisis occurred in 2008, commodity transactions have increased greatly, instead of US dollar and stocks. Typical commodity prices, namely, gold prices, for example, have risen enormously. The relationship between exchange rates and stock prices has been analyzed not only in business but also in academic fields in the past; however, findings seem ambiguous about the relationship and a definite consensus has not been reached. The relationship varies depending on the time, span, currency (exchange rate), kinds of stocks, and so on. One reason may be the omission of something. Commodity price is one possibility when analyzing the relationship between exchange rates and stock prices. There is some possibility that the relationship between exchange rates and commodity prices and also the relationship between commodity prices and stock prices should be taken into account when analyzing the relationship between exchange rates and stock prices. Despite the importance of this issue, it has not been discussed a lot in spite of the fact that some studies have examined the relationship between exchange rates and stock prices [1-15].

However, because of the recent large fluctuations in stock prices, exchange rates, and commodity prices, the relationship between exchange rates and stock prices has recently received more focus than ever and should be analyzed more.

In Japan, huge numbers of international financial transactions and international trade have been ongoing, and the volume of commodity transactions has been increasing. Also, in the Euro area, the new currency, the euro, has started to circulate. For both Japan and the Euro area, the exchange rate against the US dollar is one of the important factors that affects stock prices or commodity prices. Especially since the Lehman shock, commodities, the Japanese yen, and the euro, instead of the US dollar, have attracted interest for use in transactions and speculations because of the rising prices from market participation. This article empirically examines the relationship between exchange rates and stock prices while considering commodity prices. For commodity prices, gold price is employed as a typical financial commodity for estimation. VAR/VEC analyses are used for estimation.

This article is structured as follows. Section 2 reviews existing studies related to exchange rates, commodity prices, and stock prices. In section 3, data for empirical analyses are presented. For empirical analyses, VAR/VEC is used for estimation. Finally, this article ends with a brief summary. Section 4 performs empirical analyses and analyzes the results.

RELATED STUDIES

Exchange rate theories have improved greatly since the introduction of the floating exchange rate system in the 1970s. For the theory of exchange rate determination relative to incorporation of asset (stock) transactions, the so-called monetary approach is related to stock prices. This approach to the determination of the exchange rate seeks to find the point at which the available amount of money is equal to the demand to hold the money. According to the theory, there is usually a positive relationship between stock prices and exchange rates. Empirically, [16] showed a positive cointegration relationship between these variables.

Another important exchange rate theory is the *portfolio approach* as per [17,18]. This approach determines the exchange rate as with asset prices of, for example, stocks, bonds, and other financial money market instruments. Against the theory of monetary approach, there is a negative relationship between stock prices and exchange rates. However, empirical studies on the relationship between stock prices and exchange rates are inconclusive [19]. Using US data, [20-22] provided different results. Neither theories has provided conclusive results on the relationship between exchange rates and stock prices depending on the time, span, currency (exchange rate), kinds of stocks, and so on.

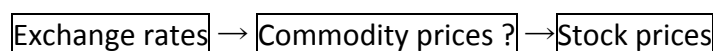
Commodity prices have been discussed recently from many aspects. [23-25] showed the relationship between commodity prices, inflation, and monetary policy. [26] showed that stock price changes cause significant changes in exchange rate. [27] showed the relationship among wheat prices, production, domestic food prices, GDP, and exchange rates. [28] suggested that oil prices do not change unemployment, but exchange rate influences unemployment.

The relationship between commodity and currency started to be analyzed in early in the 2000s. [29-34] showed that commodity prices allow exchange rates to move. A rise in commodity prices increases the supply of commodities, and the demand for the currency of the commodity-supplying country with the result that the currency appreciates (i.e., the exchange rate falls). So there is a negative relationship between commodity prices and the exchange rate.

These studies support the view that there is a significant relationship between commodity price and exchange rate. However, [35] did not accept this view.

It is difficult to obtain a consensus; however, some possibility exists that there are some common elements between exchange rates and stock prices. One possibility is a commodity (Figure 1). In the following sections, the relationship between exchange rates and stock prices is examined empirically with consideration of commodity prices. Section 3 defines the data. Section 4 conducts empirical analyses and analyzes the results. Finally, this article ends with a brief summary.

Figure 1. Relationship among exchange rates, commodity prices, and stock prices



THE DATA

This article uses three variables: stock price, exchange rate, and commodity price for the case of Japan and the Euro area. The data for the Japanese stock price is the Nikkei Average 225, namely most famous Japanese stock price index. The exchange rate is the Japanese yen against the US dollar (period average), and commodity price is gold price (million ounces). For the Euro area, Germany's DAX is used for stock prices (period average). Exchange rate is the euro against the US dollar (period average), and the commodity price is gold price. All of the data are monthly averages. Monthly data are employed for estimation. The data are from International Financial Statistics (IMF). The sample period is from 2001 to 2013 for Japan and from 2002 to 2013 for the Euro area. The euro started in 1999; however, the first three years are omitted to avoid the period of unstable currency values.

EMPIRICAL ANALYSES

To perform the empirical analyses, preliminary statistics are calculated for estimations. The stationarity of the data is determined using the standard test for a unit root, and the augmented Dickey-Fuller test is conducted. Table 1 shows the results. EXC denotes exchange rates, STOCK denotes stock prices, and GOLD denotes gold prices representing commodity prices. The figures in the table are probability.

Table 1. ADF unit root tests

	Japan	Euro Area
EXC	0.2255	0.6620
Δ EXC	0.0000	0.0000
STOCK	0.2030	0.9988
Δ STOCK	0.0000	0.0000
GOLD	0.9124	0.8112
Δ GOLD	0.0007	0.0000

It is clear that all three variables are non-stationary in the levels but stationary in their first difference.

Empirical Results

All of the variables are all I(1). While considering this fact, VAR and VER models are estimated. The results are shown in Table 2, Figures 2a and 2b, Table 3, Figures 3a, and 3b.

Table 2. VAR model

	Japan			Euro Area		
	EXC	STOCK	GOLD	EXC	STOCK	GOLD
EXC(-1)	1.277 (26.714)	0.0005 (0.0008)	-13.892 (-2.286)	1.203 (16.605)	30.964 (0.784)	-20333.77 (-0.315)
EXC(-2)	-0.288 (-6.045)	-0.007 (-0.120)	11.805 (2.095)	-0.244 (-3.406)	-43.289 (-1.106)	12067.96 (0.188)
STOCK(-1)	0.018 (0.476)	1.301 (27.552)	-9.477 (-1.085)	-0.0002 (-1.685)	1.092 (14.276)	150.378 (1.202)
STOCK(-2)	-0.022 (-0.572)	-0.321 (-6.803)	7.967 (0.912)	0.0001 (1.406)	-0.098 (-1.283)	-138.277 (-1.105)
GOLD(-1)	-0.0001 (-0.641)	-0.0005 (-2.048)	0.824 (16.685)	-9.24E-08 (-1.066)	2.19E-06 (0.046)	0.799 (10.375)
GOLD(-2)	0.0001 (0.587)	0.0005 (1.917)	0.170 (3.456)	1.83E-07 (2.058)	1.39E-05 (0.287)	0.152 (1.934)
C	1.792 (1.186)	3.338 (1.808)	555.035 (1.626)	0.066 (3.028)	22.842 (1.015)	2527.402 (0.129)
Adj.R2	0.993	0.984	0.994	0.979	0.999	0.987
F-statistic	9839.494	4168.179	11321.67	1400.595	59186.02	2277.358
Akaike AIC	5.664	6.064	16.504	-4.879	7.719	22.517

Note. Figures in parentheses are t-statistics.

Table 3. VER model

	Japan			Euro Area		
	D(EXC)	D(STOCK)	D(GOLD)	D(EXC)	D(STOCK)	D(GOLD)
cointEq	-0.012 (-2.256)	-0.004 (-0.628)	-1.934 (-1.559)	-0.037 (-2.734)	-9.610 (-1.289)	3370.018 (0.280)
D(EXC(-1))	0.310 (6.261)	-0.0004 (-0.007)	-10.565 (-0.942)	0.271 (3.612)	51.275 (1.247)	-15640.72 (-0.230)
D(EXC(-2))	-0.083 (-1.684)	0.011 (0.181)	-7.749 (-0.691)	-0.075 (-1.019)	5.108 (0.126)	-27351.82 (-0.421)
D(STOCK(-1))	0.005 (0.128)	0.325 (6.489)	-6.588 (-0.719)	-0.0002 (-1.448)	0.101 (1.316)	113.282 (0.917)
D(STOCK(-2))	0.063 (1.569)	-0.027 (-0.552)	-0.255 (-1.008)	0.0001 (0.872)	0.030 (0.396)	343.412 (2.768)
D(GOLD(-1))	-0.0001 (-0.457)	-0.0005 (-1.910)	-0.193 (-3.861)	-1.69E-07 (-1.867)	-5.48E-06 (-0.110)	-0.202 (-2.533)
D(GOLD(-2))	9.01E-05 (0.403)	8.92E-05 (0.322)	-0.096 (-1.915)	2.83E-08 (0.312)	5.83E-05 (1.178)	-0.118 (-1.485)
C	-0.286 (-1.402)	0.146 (0.580)	87.861 (1.904)	9.33E-05 (0.040)	7.929 (6.237)	-1946.531 (-0.951)
Adj.R2	0.091	0.092	0.035	0.104	0.049	0.047
F-statistic	6.787	6.854	3.104	3.930	1.123	2.245
Akaike AIC	5.657	6.085	16.498	-4.730	7.874	22.642

Note. Parentheses are t-statistics.

Figure 2a. VAR impulse response (Japan)

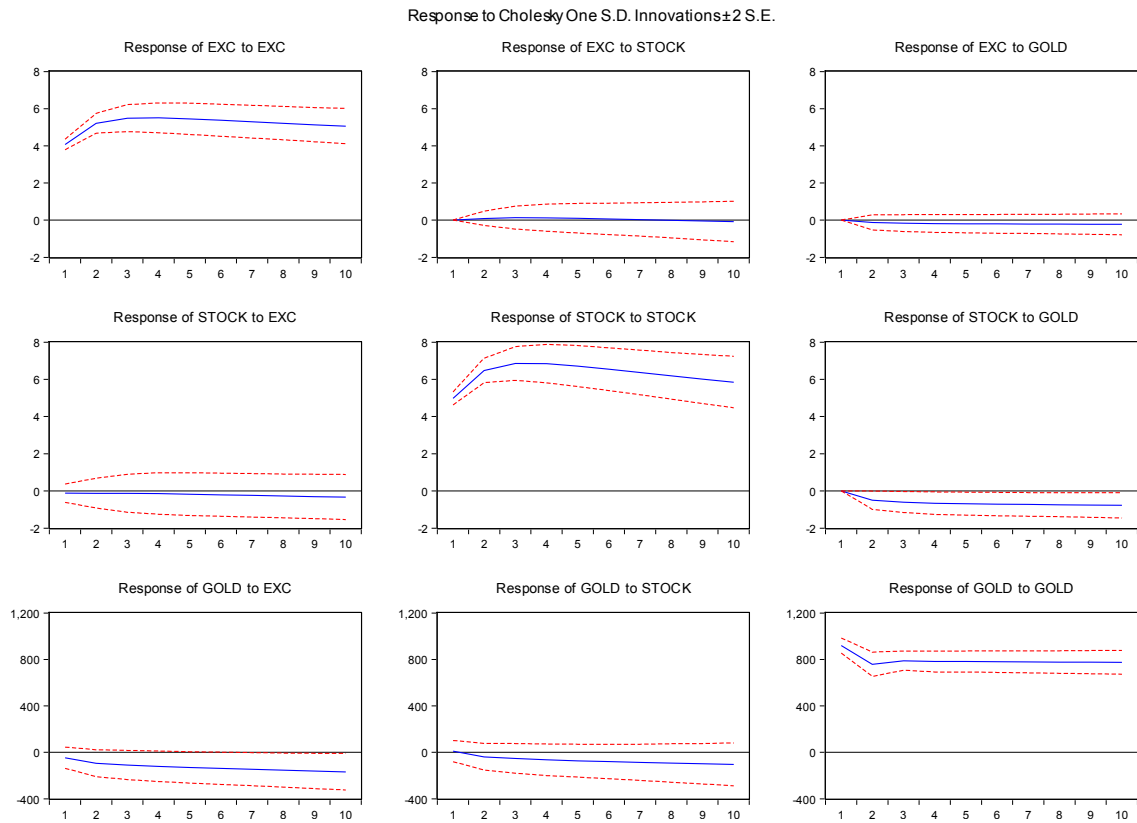


Figure 1b. VER impulse response (Japan)

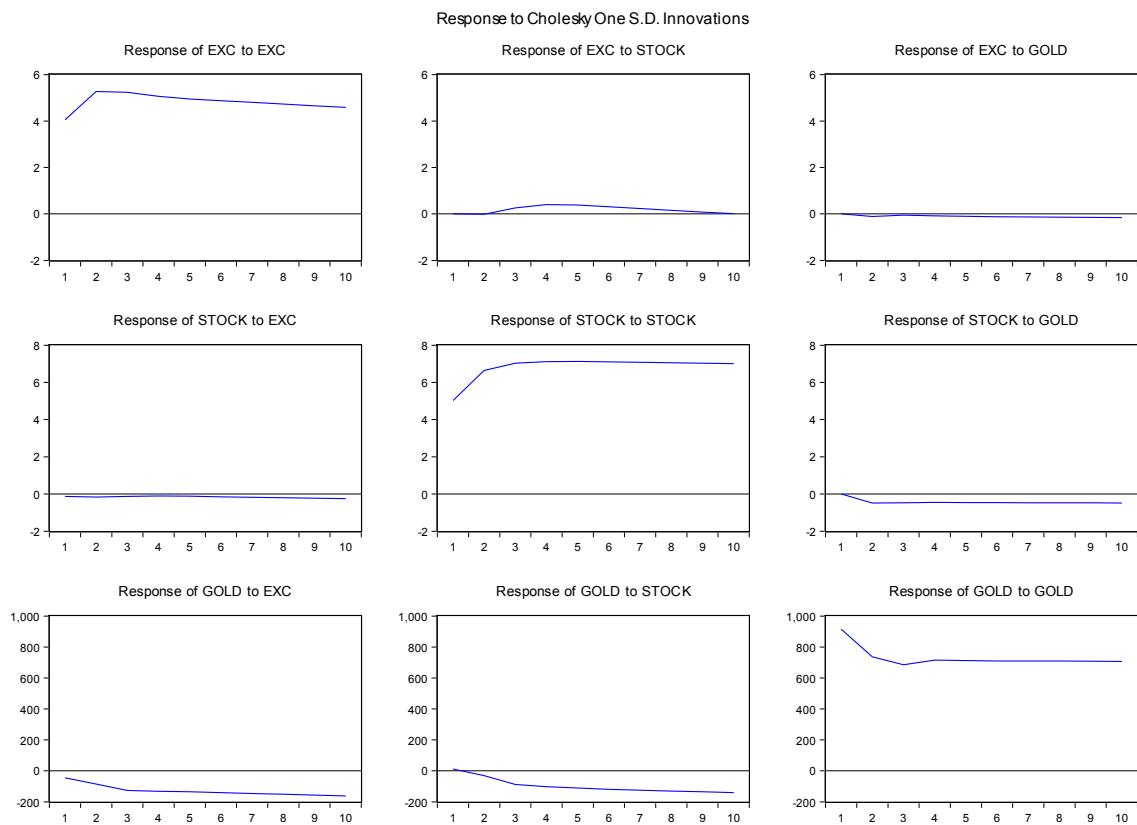


Figure 3a. VAR impulse response (Euro area)

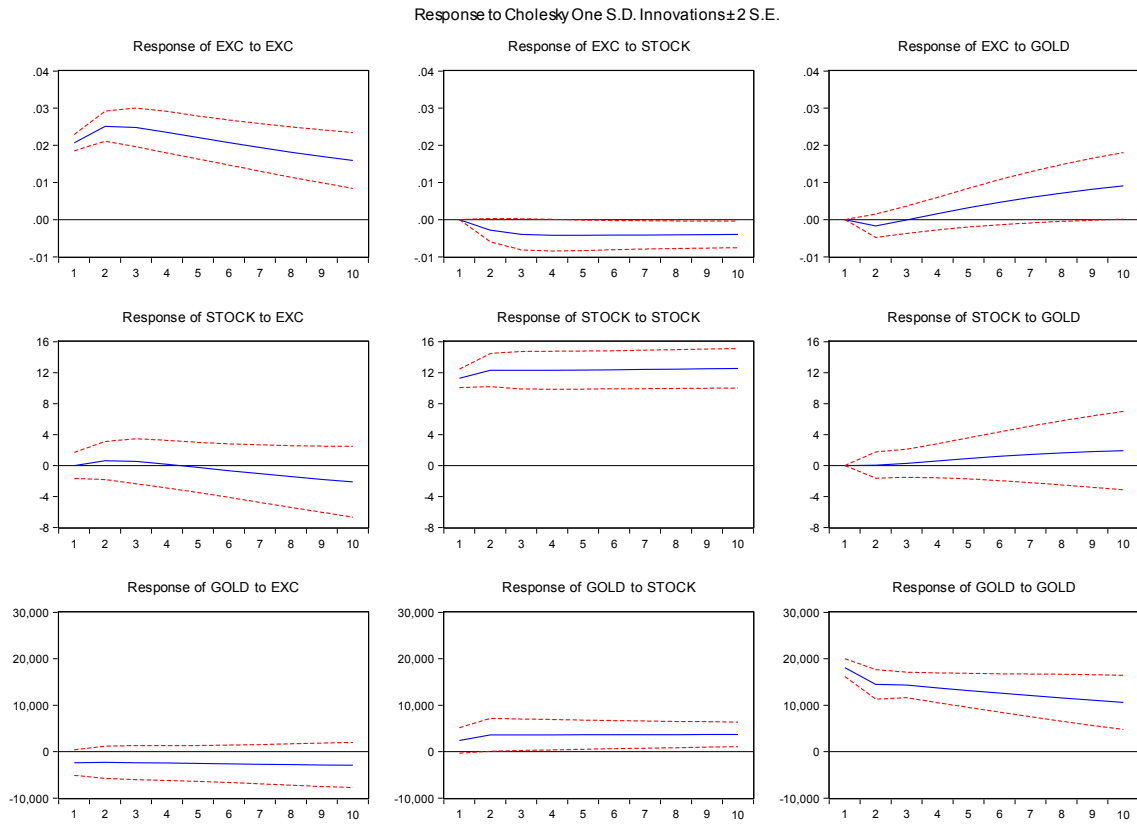
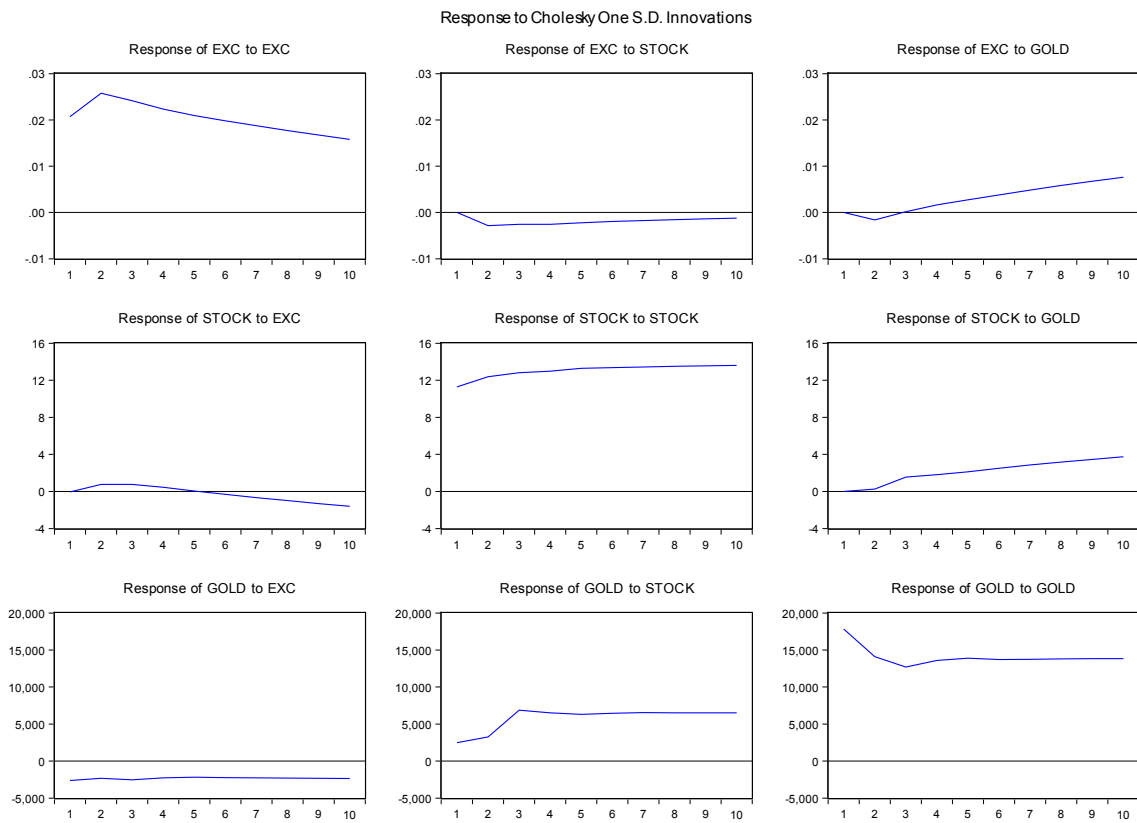


Figure 3b. VER impulse response (Euro area)



Appropriateness of the use of the VAR or VER is examined using the cointegration test. The relationship between exchange rates and stock prices are examined. The results of the cointegration tests are shown in Table 4. The test outcomes determine not only whether a VAR or VER model is appropriate but also provide information on whether a stable long-run relationship exists between the variables being used.

Table 4. Tests for cointegration

	Japan	Euro Area
Trace	0.524	0.693
Eigenvalue	0.687	0.705

Note. The figures are p -values for the test of no cointegration.

It is clear that there are no cointegration among these variables, so the VER model is appropriate for estimation. The relationship between stock prices and exchange rate has no cointegration, so there is no long-run relationship between these two variables. This case may be the result of the omission of variable(s). The author of this article expected that there is a commodity price influence between exchange rates and stock prices as shown in Figure 1.

To check the relationship among the three variables (i.e., exchange rates, gold prices, and stock prices), a causality test is performed. The results are shown in Table 5. The results indicate that there is no causality between stock prices and exchange rates. Also there is no evidence of causation of the exchange rate as would be predicted by a commodity price. However, there is evidence that the exchange causes commodity price changes in Japan.

Table 5a. Pairwise Granger Causality Tests (Japan)

	F-statistic	Prob.
STOCK does not Granger cause EXC	1.888	0.171
EXC does not Granger cause STOCK	1.402	0.238
GOLD does not Granger cause EXC	0.269	0.604
EXC does not Granger cause GOLD	3.952	0.048
GOLD does not Granger cause STOCK	0.252	0.616
STOCK does not Granger cause GOLD	1.448	0.230

Note. Figures are p -values for the tests of no causality.

Table 5b. Pairwise Granger Causality Tests (Euro area)

	F-statistic	Prob.
STOCK does not Granger cause EXC	0.070	0.790
EXC does not Granger cause STOCK	0.175	0.675
GOLD does not Granger cause EXC	0.014	0.903
EXC does not Granger cause GOLD	1.962	0.092
GOLD does not Granger cause STOCK	0.778	0.378
STOCK does not Granger cause GOLD	0.045	0.830

Note. Figures are p -values for the tests of no causality.

CONCLUSIONS

This article examines the inclusive points regarding the existence of a relationship between exchange rates and stock prices. The study showed that the relationship between stock prices and the exchange rate is weak. In Japan, the exchange rate has a significant impact on commodity prices. There is a possibility that the commodity prices could be related to the relationship between stock prices and exchange rates. However, the relationship could not be found for the case of Euro area (however, it was significant at the 10% level). Also, there was

no evidence that commodity prices impact stock prices both for the case of Japan and the Euro area. Sample period, currency, kinds of stocks may produce different results. There is much room and need for further study.

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The Impact of Socioeconomic Status on Elementary Student Achievement in Rural South Texas Schools

Frances Ann Martinez-Perez

Freer Independent School District
Texas A&M University-Kingsville

Lori Kupczynski

Freer Independent School District
Texas A&M University-Kingsville

Marie-Anne Mundy

Freer Independent School District
Texas A&M University-Kingsville

ABSTRACT

The primary focus of the study is to analyze the effect of socioeconomic status on academic achievement by analyzing the scores of economically disadvantaged students in comparison to those of non-economically disadvantaged students on the State of Texas Academic Assessment of Readiness (STAAR) exam. Specifically, the study examines the 2013 STAAR reading and math scores of third, fourth, and fifth graders in attendance at four small rural schools in order to allow educators the capability to further understand the association between socioeconomic status and academic achievement among students in rural communities. Binary logistic regression is utilized and the results of analysis pointed out that socioeconomic status had a significant impact at the 4th grade level specifically. The results of this study provided information to be utilized by school leaders ranging from teachers all the way up to superintendents and on through higher education to inform teacher preparation curriculum that is specific to the needs of economically disadvantaged learners.

Key words: socioeconomic status; academic achievement; STARR; rural education

INTRODUCTION

When students begin school each year, their parent(s) or legal guardian(s) must fill out countless forms that require information pertaining to health status, insurance, living arrangements, and income. The Department of Health and Human Services (HHS) uses this information and the poverty guidelines to determine whether the child(ren) is(are) economically disadvantaged. This economically disadvantaged “label” becomes a means of tracking equity for state and federal accountability purposes.

Increasing evidence confirms that the environment in which a child is raised, traced back to pre-birth, contributes to childhood development [1]. Unfortunately, children from economically disadvantaged backgrounds are not subjected to stimulating early childhood experiences [2]. By the age of three, economically disadvantaged children have heard an average of three million fewer words as opposed to children from higher income households resulting in extensively smaller vocabularies upon entering school [2]. Additionally, children of

poverty are not naturally exposed to print-rich environments or reading [3]. Furthermore, economic restraints create difficult circumstances for poor parents to provide toys, books, or quality childcare that may be beneficial for their children's development [4]. This lack of stimulation contributes to poor emergent literacy skills and puts children at an automatic disadvantage once enrolled in school [4].

Research by Daily, Burkhauser, and Halle [5] exposed a significant achievement gap at the start of kindergarten between low-income children and more affluent students. Results uncovered "cracks" in the areas of cognitive, social, and physical development [5]. One specific national study revealed that the average cognitive scores of affluent students are 60 percent higher than those of the poorest prior to entering school [5].

Healthcare is another area where socioeconomically disadvantaged students are susceptible to factors which are detrimental to their education as children raised in low-income households experience poorer health than their wealthier counterparts, which discourages academic achievement [6]. Rothstein [3] indicates that children from low income families often go without health insurance leaving these children to forgo preventive health and dental care which in turn leads to increased attendance issues due to subsequent illnesses. The 2007 Annual Report of the Children's Defense Fund documented that nearly 25 percent of children who live in poverty lack adequate health care and miss too many days of school because they are ill [7]. Absences at school contribute to learning gaps that increase over time. In addition, according to Action for Healthy Kids [8], active, healthy children encounter less discipline referrals and outperform those who are not healthy on standardized achievement tests in math and reading.

The education of economically disadvantaged students is further endangered by a lack of stable, quality housing [4] which contributes to disrupting the continuity of children's education and consequently places them behind their peers. Families of poverty directly expose their children to risks within the home that include illness, crowding, stress, lack of psychosocial stimulation, and limited resources all of which affect student achievement [5].

Other factors outside of the home also affect achievement for socioeconomically disadvantaged students. Sadly, economically disadvantaged students often attend poor, minority schools and receive inadequate educational resources that yield lower academic achievement than more affluent students who attend higher quality schools. Currently, children living in poverty tend to be concentrated in schools that underperform and are additionally staffed by ill-prepared teachers [9]. Smyth [10] explains that vital learning instruments such as textbooks, computers, internet access, parental involvement, extracurricular activities, fine arts, and electives are not usually present at the schools that children of poverty attend. Highly qualified teachers and high-level student achievement are generally not present either [10]. Hewitt [11] reveals that attending a highly impoverished learning institution is one of the leading predictors of academic failure.

Hernandez [12] also found that socioeconomic status and third grade reading ability was an indicator of academic failure and found that 26 percent of students who fall below the poverty line for a minimum of one year and are not reading at grade level in the third grade do not graduate. This is six times the rate for students who are proficient readers in third grade.

The academic achievement gap that exists between affluent students and their not so affluent counterparts is often attributed to an opportunity gap. It is documented that students who come from economically disadvantaged families have limited or restricted access to

opportunities to which other students may have. Poverty for students often means lack of housing, inadequate nutrition, inadequate health care and inadequate educational resources all of which contribute to the achievement gap.

Purpose Of The Research Study

Over the past three decades, the incomes of families have diverged just as the educational performances of the respective children have diverged [13]. The low academic performance of economically disadvantaged learners in comparison to non-economically disadvantaged learners denotes the very existence of achievement gaps [14].

Unfortunately, low socioeconomic status significantly limits a family's quality of life and may manifest itself in the form of malnutrition, ill health, generational lack of education, unemployment, high mobility rates, disadvantaged living conditions, and limited resources; all of which affect a child's education [15]. Moreover, children from economically disadvantaged backgrounds tend to experience an increased number of problems at school that include lower academic performance [15]. Factually, children from economically disadvantaged families are more likely to earn lower classroom grades which typically manifests in lower grade completion and lower standardized test scores [15]. Although there is a general agreement on the seriousness of the achievement gap, there is no consensus on what causes it or how it can be solved [16].

The primary focus of the study is to analyze the effect of socioeconomic status on academic achievement by analyzing the scores of economically disadvantaged students in comparison to those of non-economically disadvantaged students on the State of Texas Academic Assessment of Readiness (STAAR) exam. Specifically, the study examines the 2013 STAAR reading and math scores of third, fourth, and fifth graders in attendance at four small rural schools in order to allow educators the capability to further understand the association between socioeconomic status and academic achievement among students in rural communities. Richard Rothstein [3] sums it up by stating that understanding the effects of socioeconomic differences on student learning is a vital step to closing the achievement gap.

Conceptual Framework

Using standardized tests to measure student success, and therefore, hold students, teachers, and schools accountable has become a common practice. In the United States there has been concern about the damage that "high stakes" testing imposes on teachers and students [17]. Haertel and Herman [18] summarized that from the 1900's to the Head Start program evaluations of the 1960's and up through the testing requirements imposed by ESEA and NCLB, policymakers have utilized standardized test scores to determine which schools are fulfilling their responsibilities to adequately educate students. William [17] states one of the most distinctive features of testing for accountability is the risk involved for teachers. In some cases, evaluations and pay for educators are tied to test results.

It is useful to examine the logic behind the notion that higher quality schools yield higher student scores [17]. Messick [19] points out that this conclusion turns into a matter of validity as the scores fail to adequately represent student differences such as socioeconomic status. While the laws that reinforce utilizing standardized assessments do so in an effort to assure equal educational opportunities, these laws often overlook the critical point that students are individual human beings with needs that cannot be measured by a single test [20].

METHODOLOGY

The data were compiled electronically by importing student information that was generated by the Public Education Information Management System (PEIMS) in addition to the State of Texas Assessment of Academic Readiness (STAAR) met/not met student results report. STAAR is mandated to be administered by every Texas public school. The researchers sent requests via e-mail for participation to each superintendent within the Region two area. The request specifically asked for access to their elementary schools' 2012-2013 PEIMS information and 2012-2013 STAAR scores for grades 3, 4, and 5. The data software, Statistical Package for the Social Sciences (SPSS), was utilized to run binary logistic regression

The data collected for this study included a total sample of 843 students (N=843) ranging from grades three through five. Frequency information in presented in Table 1 while Table 2 depicts the socioeconomic status of each school.

Table 1: Frequency Statistics for Sample

	School 1	School 2	School 3	School 4	Total	Percentage
3rd	63	85	27	148	323	38.3
4 th	60	71	23	95	249	29.5
5 th	43	70	43	115	271	32.1
Total	166	226	93	358	N=843	

Table 2: Descriptive Statistics

	School 1	School 2	School 3	School 4	Total	Percentage of N
3rd						
ECO	49	60	21	131	261	31
NON ECO	14	25	6	17	62	7
4 th						
ECO	39	55	19	73	186	22.1
NON ECO	21	16	4	22	63	7
5 th						
ECO	31	44	36	102	213	25.3
NON ECO	12	26	7	13	58	7
Total						
ECO	119	159	76	306	660	78.3
NON ECO	47	67	17	52	183	21.7

RESULTS

For this study, the researchers used a binary logistical regression to analyze the data for research question one and two. Binary logistical regression was utilized to evaluate the impact of the predictors, socioeconomic status and grade level, on academic achievement as measured by the standardized STAAR exam utilizing dichotomous scores of pass and fail in the areas of reading and math for 3rd, 4th, and 5th graders.

Research Question Number One

Is there a difference in reading achievement for third, fourth, and fifth grade students as measured by the state of Texas Assessment of Academic Readiness test between students coded as economically disadvantaged and students not coded as economically disadvantaged in rural elementary schools in South Texas?

For research question number one, 843 students comprised of 78% economically disadvantaged and 22% of non-economically disadvantaged were analyzed to determine that

socioeconomic status and grade level does significantly influence STAAR passing rates in reading. A logistic regression analysis was conducted to predict the passing of STAAR reading for 843 students using socioeconomic status and grade level as predictors. A test of the full model against a constant model was statistically significant, indicating that the predictors as a set reliably distinguished between passers and non-passers (chi square = 15.374, $p < .002$ with $df = 3$). Nagelkerke's R^2 of .024 indicated a 2.4% variability of dependent variable by the independent variables in the model. Prediction success overall was 56.9% (27% for fail and 82.1% for pass). The Wald criterion demonstrated that socioeconomic status ($p = .002$) and grade level ($p = .038$) make significant contributions to prediction in STAAR reading passing rates. There were no significant differences found between grade 3 students coded as economically disadvantaged and those coded as not economically disadvantaged in reading achievement, chi square(1) = 2.75, $p = .10$ and between grade 5 students coded as economically disadvantaged and those coded as not economically disadvantaged in reading achievement, chi square(1) = 1.62, $p = .20$. Adding economically disadvantaged to reading was significant, chi square(1) = 6.02, $p = .01$. The estimated model is: $\text{Logit}(\text{reading}) = -.238 + .723(\text{Economically Disadvantaged})$. The coefficient of Economically Disadvantaged is significant, Wald(1) = 5.87, $p = .02$. The relative odds (odds/ratio) indicated that the Non Economically Disadvantaged are 2.06 times as likely to pass as the Economically Disadvantaged.

Research Question Number Two

Is there a difference in math achievement for third, fourth, and fifth grade students as measured by the State of Texas Assessments of Academic Readiness test between students coded as economically disadvantaged and students not coded as economically disadvantaged in rural elementary schools in south Texas?

For research question number two, 843 students comprised of 78% economically disadvantaged and 22% of non-economically disadvantaged were analyzed to determine that socioeconomic status does significantly influence STAAR passing rates in math. A logistic regression analysis was conducted to predict the passing of STAAR math for 843 students using socioeconomic status and grade level as predictors. A test of the full model against a constant model was statistically significant, indicating that the predictors as a set reliably distinguished between passers and non-passers (chi square = 7.119, $p < .008$ with $df = 1$). Nagelkerke's R^2 of .011 indicated a relatively weak relationship between prediction and grouping. Prediction success overall was 55.2% (81.9% for fail and 25.7% for pass). The Wald criterion demonstrated that socioeconomic status ($p = .008$) and grade level ($p = .013$) make significant contributions to the prediction of STAAR math passing rates. Adding economically disadvantaged to math was not significant at the third grade level, chi square(1) = 2.98, $p = .08$ or the 5th grade level, chi square(1) = .01, $p = .91$. However, at the fourth grade level, adding economically disadvantaged to math was significant, chi square(1) = 8.44, $p = .00$. The estimated model is: $\text{Logit}(\text{math}) = -.437 + .856(\text{Economically Disadvantaged})$. The coefficient of Economically Disadvantaged is significant, Wald(1) = 8.24, $p = .00$. The relative odds (odds/ratio) indicated that the Non Economically Disadvantaged are 2.35 times as likely to pass as the Economically Disadvantaged.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The data specifically pointed out that socioeconomic status had a significant impact in 4th grade. Socioeconomic status did not contribute significantly in grades three and five. In 3rd grade, the first major "high-stakes" test of that magnitude that is administered for state/national purposes. In 5th grade, students must pass in order to be promoted to 6th grade. Considering the special circumstances that are presented in grades 3 and 5, it is

fascinating to reflect upon the possibility that these variables may be strong enough to make socioeconomic status insignificant. It is also important to note that this research was based on a newly administered STAAR test as opposed to the Texas Assessment of Knowledge and skills (TAKS). Different tests may yield different results. This study indicates that further research with STAAR should be considered as the significance may also be due to the validity of the tests at the various grade levels. In other words, the testing may not be as demanding at different grade levels. According to Johnston [21] "current testing practices clearly have deleterious effects on students, teachers, and the curriculum. These effects are not distributed equally across gender, race, or class. . . Although intended to improve equity, testing veils the erosion of equity [22].

It has been theorized that socioeconomic status affects academic performance and that, students who come from economically disadvantaged backgrounds persistently score below those who are not economically disadvantaged, and this discrepancy contributes to keeping the academic achievement gap alive. [3, 5, 15]. However, based on these results we can now dispute the idea that regardless of teacher or curriculum quality, socioeconomic status cannot be overcome; as there are 2 instances where this was not true.

The results of this study provided information to be utilized by school leaders ranging from teachers all the way up to superintendents and on through higher education to inform teacher preparation curriculum that is specific to the needs of economically disadvantaged learners. The research reveals that the variable of socioeconomic status is still one to contend with and the pursuit for equity continues. This study indicates that further research with STAAR should be considered.

The following recommendations were made as a result of this study: Future research could examine other districts to reflect various geographic regions both state and nationwide. Future research could study what successful schools with a high frequency of economically disadvantaged students are doing. Future research should involve the variable of race. Some challenges with regard to socioeconomic status include the comparison to race and the need for research in order to develop policy [23]. The pursuit for equity in education still persists. The socioeconomic status of students continues to influence academic outcomes. While many national and state efforts have been made to address the academic achievement gap, it still has not been eliminated.

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College Students' Perceptions of their Core Competencies: An Institutional Analysis of Discipline and Gender

Sumeyra Sahbaz

Doctoral Candidate, Educational Research & Evaluation
Virginia Tech

Steven M. Culver

Assistant Provost for Assessment and Evaluation
Virginia Tech

Penny L. Burge

Professor, Educational Research & Evaluation
Virginia Tech

ABSTRACT

In this study we examined the perceptions of 1,852 senior college students' knowledge, skills, and abilities as freshmen and as seniors at a large research-intensive university in the southeastern United States. From a list of twelve core skills (e.g., critical thinking, writing, oral communication, leadership), we examined the underlying factors at both freshman and senior levels and explored differences by gender and by academic discipline. Using principal components factor analysis two distinct dimensions were extracted: (1) collaborative learning skills and (2) personal development. Using multiple multivariate analyses of variance (MANOVA), we found significant differences between male and female students in their perception of their skills and abilities both as entering and graduating college students in their oral communication skills, interpersonal skills and their ability to communicate with people different from themselves. Students from different academic disciplines (Engineering, Business, and Liberal Arts and Human Sciences) tended to perceive their proficiency level differently in terms of their interpersonal skills, leadership skills and ability to communicate with people different from themselves. Knowing areas where students differ in their skills and abilities can help faculty, administrators, and staff to re-examine curricula and to offer opportunities for all students to realize the personal, social, economic, and occupational benefits of a college education.

Keywords: higher education, student learning outcomes, academic discipline, gender, student surveys

INTRODUCTION

Although colleges and universities vary in their missions and the students they serve, they all have the common goal of offering students diverse and engaging experiences that are intended to transform them into "educated persons" (Neem, 2013). Since the rise of accountability and assessment processes in higher education, the focus of this transformation has become what the student is learning, rather than what the faculty may be teaching or what the curriculum seems to dictate (Maki, 2004). This focus on student learning has resulted in changes in what regional accrediting bodies and disciplinary accrediting bodies want to see as evidence of quality educational processes, evidence that students have demonstrated specific outcomes

(Ewell, 2009). Regardless of institutional type or discipline, the American Association of Colleges and Universities has highlighted "essential learning outcomes" (AAC&U, 2007) that all students are supposed to learn. This listing was developed through a multiyear dialogue with hundreds of colleges and universities, analysis of a long series of recommendations and reports from the business community, and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in several publications, including *Association of American Colleges and Universities: Greater Expectations: A New Vision for Learning as a Nation Goes to College* (2002), *Taking Responsibility for the Quality of the Baccalaureate Degree* (2004), and *College Learning for the New Global Century* (2007).

These core outcomes relate to critical thinking, written communication, oral communications, teamwork, problem solving, or other similar skills. Specifically, the essential learning outcomes include "intellectual and practical skills, including inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, and teamwork and problem solving." In addition, students should develop outcomes related to personal and social responsibility, including civic knowledge, intercultural knowledge, ethical reasoning, and skills for lifelong learning. Furthermore, students should demonstrate knowledge of human cultures and the physical and natural world (AAC&U, 2007). These outcomes are similar to those noted by others (e.g., Dugan & Komives, 2010; Ewell, 2013; Lord, et al., 2012). Additional outcomes cited as central to the educational mission include engagement and persistence (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007). Publicized concerns from employers also focus on these "core skills" that graduating students may or may not possess (Kuh & Ewell, 2010).

Most universities have responded to these concerns by more clearly articulating the general education segment of their degree programs. In addition, academic programs, in noting the skills and abilities of their graduates, typically include writing and oral communication, critical thinking, and knowledge of the subject matter as outcomes that derive from their students' engagement in the major. To provide evidence of whether these students possess these skills and abilities, standardized tests are used, locally developed instruments are administered, surveys are sent, and portfolios adjudicated by faculty-scored rubrics provide information for improvement and for accountability purposes (Kuh & Ewell, 2010). Universities are now being compared on the results of student performance, as well as student-faculty ratios and number of PhDs on faculty.

Despite this focus on "core" elements as the measure of a university's quality, there is some research that suggests that factors, other than university-level activities, are responsible for how these core elements are perceived. In fact, focusing on the university suggests a high level of consistency in students' experiences and may misrepresent the experiences of most students, particularly those who come from larger institutions that offer a greater diversity of educational programs (Jones, 2008). Rather than the university as the level of analysis, some researchers (e.g., Chatman, 2007) have suggested that academic discipline is a determiner of how students view and understand these skills. In addition, there is evidence that suggests that gender also affects the perception and measurement of these skills (Gasiewski, Eagan, Garcia, Hurtado, & Chang, 2012). Complicating this relationship is the continued persistence of gendered majors within the university (Sax, Jacobs, & Riggers, 2010; Zafar, 2013).

Colleges consist of different disciplines and individuals in these disciplines differ in terms of their expectations, perceptions, as well as their learning outcomes (Pike & Killian, 2001; Pike, 1992; Li, Long & Simpson, 1999). Indoctrination with particular academic disciplines

influences students' academic orientations, expectations, and perceptions of the college environment (Feldman, Smart, & Ethington, 1999; Jones, 2011; Pascarella, 2006). Evidence of how these traits vary by discipline includes measures of students' different abilities in different areas. For example, Jones (2009), using in-depth, semi-structured interviews with academic staff in five disciplines – physics, history, economics, medicine and law – found that skills such as critical thinking, analysis, problem solving and communication are conceptualized and taught in quite different ways in each of the disciplines. It is not surprising then that investigations into critical thinking and problem solving suggest that students in disciplines such as engineering and science demonstrate critical thinking at higher levels than those students majoring in education and the arts (Astin, 1993). Other researchers (Douglass, Thomson, Zhao, 2012; Pascarella, 1976; Steedle & Bradley, 2012), too, have found that disciplinary perspectives tend to affect measures of student achievement.

In addition to academic discipline, gender is a variable found in the literature to be strongly related to students' engagement, learning, and perceptions of their college experiences. For example, in a mixed methods study focused on students in introductory science, technology, engineering, and mathematics (STEM) courses across 15 colleges and universities, Gasiewski, Eagan, Garcia, Hurtado, & Chang, (2012) found that students' learning is affected by how comfortable they feel in class, in seeking out tutoring, in attending supplemental instruction sessions, and in collaborating with other students. Comfort level was influenced by student gender and by the perceived openness of the instructor. In a related study (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012), when faculty in the sciences were asked to rate applicants of equal qualifications, male applicants were judged to be more competent and hireable, by both male and female faculty. In a comprehensive review of the literature on student participation in college classrooms, a key factor related to engagement and student learning, Rocca (2010) found that across the majority of disciplinary areas, women are less likely than their male counterparts to be active participants in the classroom, potentially affecting their learning and their grades. Faculty interactions with students were found to differ by gender at several large research universities (Kim & Sax, 2009). In an interesting observational study by Tatum, Schwartz, Schimmoeller, and Perry (2013), as the percentage of male students increased in a classroom, overall voluntary responses and praise from the professor decreased.

Given such differences it may not be surprising that male and female students vary in terms of their expectations from a college education and the outcomes that they value. For example, in their study, Wawryznski and Sedlacek (2003) determined that acquiring effective written and oral communication skills were more important to female students than they were for male students, while learning to think and reason and developing leadership skills were more important for male students. Female students also put more value on a college education that enables them to appreciate attitudes and cultures different from their own. In addition, studies (e.g., Bowman, 2010) have documented lower levels of psychological well being among female first-year college students, a construct related to sense of belonging and social adjustment to college. In addition, lower levels of self-efficacy, related to learning and college persistence, have been associated with female sophomore students (Vuong, Brown-Welty, & Tracz, 2010). In short, on many inter-related levels, gender has been documented as shaping learning, student engagement, and the college experience (Kim & Sax, 2007; Nora, Cabrera, Hagedom, & Pascarella, 1996; Pascarella, 2006; Pascarella & Terenzini, 1991).

Purpose Statement

At a large research-intensive university, graduating seniors are asked to complete a survey that asks about their perceptions of a number of these core skills identified by AAC&U and others.

Specifically they are asked about their current level of competence after nearly completing their undergraduate education and they also asked to reflect back on their perceived level of competence when they first entered the university. These student responses were used to gain a comprehensive picture of undergraduate learning outcomes at this university and to answer the following research questions: (1) How are the dimensions of undergraduate learning outcomes defined for this group of students? (2) How do these students perceive their level of skills and abilities as entering freshmen and exiting seniors? (3) Do these learning outcomes differ for female and male students and for those from different academic disciplines?

METHODS

Instrument

A 40-item web-based survey was administered in early spring 2013 to all graduating senior students at a large southeastern land-grant university in the United States. The purpose of the survey, approved by the university's institutional review board (IRB), was to gather information regarding students' perceptions of their collegiate experiences as they related to teaching and learning in their major and across the university. Survey items were derived from the literature and from faculty input; the survey was pilot-tested and reviewed by a panel of evaluation specialists and graduate students in Educational Research and Evaluation. Of 4,218 students invited to participate in the survey, 1,852 responded, resulting in a response rate of 43.9%. Of these, 51% were female; 82% identified as white (non-Hispanic) and 6% as Asian/Pacific Islander. About 60% reported their current GPA as greater than 3.00.

Two survey items of interest in this study asked for students' perceptions of their beginning collegiate skill levels: "Below are skills and abilities that a graduating senior, regardless of major, might possess. Please indicate the level of proficiency you believe you had when you entered the university". The other asked for students' perceptions of their current skill levels: "Below are skills and abilities that a graduating senior, regardless of major, might possess. Please indicate your current level of proficiency." These items were designed to provide a cross sectional method to evaluate perceived longitudinal gains in twelve different areas. These areas were written communication skills, oral communication skills, critical thinking/analysis, computer/technology skills, interpersonal (social) skills, leadership skills, organizational ability, ability to work in teams to solve problems, ethical reasoning, ability to work across disciplines, knowledge of global issues, ability to communicate with people different from yourself.

Another item of interest on the survey was the student's major. For this item, students were provided with a drop down menu of all undergraduate majors at the university. Students were asked to indicate their primary major (for those with double or triple majors, they were only allowed to choose what they considered to be their "primary" major). These responses were used to categorize students into three disciplinary groups: Engineering, Liberal Arts and Human Sciences, and Business. Students who could not be classified in these areas were excluded from further analyses.

Procedures

Because the twelve student competencies appear to be closely related (e.g., critical thinking and organizational ability), an exploratory factor analysis (EFA) was conducted to determine if underlying constructs defined manifest items on the two survey questions related to student skills and abilities. An EFA was conducted for each of the two sets (current skill level and perceived skill level at beginning of college) of questions related to students' skills and abilities.

After the factor structure of the two sets of items was explored, reliability analysis was conducted in order to determine the internal consistency of each factor. Following the reliability analysis, a multivariate analysis of variance (MANOVA) was employed to examine the differences in the means of the items of extracted factors at two time points: students' beginning of college experience and students' impending graduation from college. In the MANOVA, gender and study discipline were used as independent variables and the resulting factors derived from the twelve core skills were the dependent variables. The purpose of the MANOVAs was to examine differences of students' perceptions of their skills and abilities by students' gender and study discipline.

RESULTS

Table 1a presents students' responses to each of the twelve core knowledge, skills, and abilities seen as central to student learning in higher education. Shown are students responses to the two questions, asking for their perceptions of their skills and abilities "when you entered the university" and "your current level."

Table 1a: Students' perceptions of their proficiency level in twelve skills and abilities

Below are skills and abilities that a graduating university senior, regardless of major, might possess. Please indicate the level of proficiency you believe you had when you entered the university and your current level of proficiency.

	Your proficiency when you entered					Your Current level of proficiency				
	Very low	Low	Ave.	Above Ave.	Mean (SD)	Very low	Low	Ave.	Above Ave.	Mean (SD)
Written communication skills	2%	9%	55%	34%	3.2 (0.67)	0%	1%	38%	61%	3.6 (0.52)
Oral communication skills	3%	24%	53%	20%	2.9 (0.74)	0%	2%	41%	56%	3.5 (0.55)
Critical thinking/analysis skills	1%	12%	59%	27%	3.1 (0.65)	0%	1%	24%	75%	3.7 (0.46)
Computer/technology skills	3%	21%	59%	18%	2.9 (0.70)	0%	4%	46%	50%	3.5 (0.59)
Interpersonal (social) skills	2%	15%	52%	31%	3.1 (0.72)	0%	3%	36%	61%	3.6 (0.56)
Leadership skills	3%	19%	54%	24%	3.0 (0.75)	0%	3%	39%	57%	3.5 (0.58)
Organizational ability	4%	19%	46%	31%	3.1 (0.80)	0%	5%	35%	60%	3.6 (0.60)
Ability to work in teams to solve problems	1%	13%	62%	23%	3.1 (0.64)	0%	1%	33%	65%	3.6 (0.52)
Ethical reasoning	1%	11%	57%	32%	3.2 (0.65)	0%	1%	38%	61%	3.6 (0.53)
Ability to work across disciplines	1%	16%	63%	20%	3.0 (0.63)	0%	2%	44%	55%	3.5 (0.54)
Knowledge of global issues	9%	41%	39%	11%	2.5 (0.81)	1%	10%	45%	43%	3.3 (0.70)
Ability to communicate with people different from yourself	2%	14%	56%	28%	3.1 (0.69)	0%	1%	34%	65%	3.6 (0.51)

Note. Mean is calculated on 4-point scale where Very Low = 1 and Above Average = 4 (n = 1747 to 1752, depending on item)

As shown in Table 1a, 89% of the students perceive their written communication skill as they entered the university to be average or above average. As graduating seniors, 99% believe their written communication skills to be average or above average. Similar increases in perceptions of skills can also be observed for students' oral communication skills, critical thinking/analysis skills, interpersonal/social skills, leadership skills, organizational ability, computer/technology skills, and their ability to communicate with people different from themselves. Similar increases were demonstrated for knowledge of global issues, though students' perceptions of their abilities in this area upon college entry were lower than the other areas listed. Consequently, they were also lower when students were at the end of their college years.

Exploratory Factor Analysis (EFA)

Given the related nature of these skills and abilities, we considered the possibility of an underlying structure among this set of items. However, before conducting an exploratory factor analysis, the assumptions for EFA were tested in order to examine the suitability of the data for this type of analysis. Initially, the Kaiser-Meyer-Olkin index of sampling adequacy was used to assist with the examination of the factorability of each of the two item sets. This index was .86 for responses at both the entering student and graduating student levels, above the commonly recommended value of .60. In addition, Bartlett's test of sphericity was significant for the first set of items ($\chi^2(66,1750) = 4707.56, p < .001$) and for the second set ($\chi^2(66,1720) = 3986.53, p < .001$), indicating that the correlation matrices are suitable for factor analysis.

Given these overall indicators, factor analysis was deemed to be suitable with all 12 skills for each item (student perceptions as entering freshmen and student perceptions as graduating seniors). Principal axis factor analysis with Promax rotation was used to extract the factors with eigenvalues greater than or equal to 1.0. For the first survey question (asking students' their perceived competency level on the 12 skills as entering freshmen), the analysis yielded three factors, with eigenvalues of 3.98, 1.30, and 1.0. Items were retained if their primary factor loading was at least .50 with no cross-loading of .30 or above. The three factors extracted accounted for 52.5% of the total variance for the entire set of skills. These factors we labeled as Collaborative Learning Skills, with 5 items and a Cronbach's reliability of .71; Personal Development, with three items and a Cronbach's reliability of .52; and Intellectual Skills with three items and a Cronbach's reliability of .53. Table 2 presents the rotated factor matrix/pattern matrix for this item, showing which skills loaded on which factor.

Based on the results presented in table on next page, five items load on factor 1 with loading greater than .5 and these items are: (1) organizational ability (2) ability to work in teams to solve problems (3) ethical reasoning (4) ability to work across disciplines, and (5) ability to communicate with people different from themselves.

The same procedure was followed to extract the factors underlying the second survey question asking about students' perceptions of their skills and ability level as they graduate from the university. Principal axis factor analysis was applied to the second item – students' perceptions of their current competency levels across the 12 skills. As with the first item, factors with eigenvalues greater than or equal to 1.0 were retained, and after Promax rotation, the analysis yielded two factors, with eigenvalues of 3.78 and 1.20. This analysis resulted in two factors that accounted for 41.6% of the total variance for the entire set of skills. These factors we have labeled as Collaborative Learning, with four items and a Cronbach's reliability of .73; and Individual Development, with four items and a Cronbach's reliability of .55. Table 3 presents the resulting rotated factor matrix, showing which skills loaded on which of the two factors.

Table 1: Results of EFA for student perceptions of skills as freshmen

	Factors		
	1 Collaborative Learning skills	2 Personal Development	3 Intellectual Skills
Skills and Abilities			
Written Communication Skills	-.049	-.286	.615
Oral Communication Skills	-.081	-.711	.373
Critical Thinking/analysis Skills	.155	-.020	.706
Computer/technology Skills	.084	.083	.624
Interpersonal/social Skills	.180	-.754	-.121
Leadership Skills	.136	-.739	.012
Organizational Ability	.595	-.119	-.141
Ability to work in teams to solve problems	.672	-.190	-.101
Ethical Reasoning	.696	.178	.159
Ability to work across disciplines	.672	.049	.182
Knowledge of global issues	.455	.060	.299
Ability to communicate with people different from yourself	.612	-.178	.020

Note. Primary factor loadings are in bold.

Percentage of variance explained: Factor 1 (33.2%), Factor 2 (10.8%), and Factor 3 (8.4%).

Table 1: Results of EFA for student perceptions of skills as graduating seniors

	Factors	
	1 Collaborative Learning	2 Individual Development
Skills and Abilities		
Written Communication Skills	.129	.429
Oral Communication Skills	.665	.049
Critical Thinking/analysis Skills	-.070	.728
Computer/technology Skills	-.191	.673
Interpersonal/social Skills	.832	-.145
Leadership Skills	.740	-.049
Organizational Ability	.478	.017
Ability to work in teams to solve problems	.456	.238
Ethical Reasoning	.264	.474
Ability to work across disciplines	.242	.563
Knowledge of global issues	.114	.500
Ability to communicate with people different from yourself	.602	.183

Note. Primary factor loadings are in bold.

Percentage of variance explained: Factor 1 (31.5%) and Factor 2 (10.0%).

According to the factor matrix four items load on factor one and these are: (1) oral communication skills (2) interpersonal (social) skills (3) leadership skills and (4) ability to communicate with people different from themselves. In both of the survey questions the predominant factor consisted of skills and abilities related to collaborative learning. Relying on the existing literature these factors consisting of certain skills and abilities were labeled as

Collaborative Learning Skills. This particular factor, derived from both sets of respondents (incoming freshman and graduating senior), was the focus of the present study.

Multivariate Analysis of Variance

Multivariate analyses of variance (MANOVA) were conducted to examine differences among students' perceptions of their proficiency level of the listed skills and abilities. Separate MANOVAs were utilized for the first and second survey questions, one asking about students' perceptions of their skills and ability level as they entered the university and another one asking about student current proficiency level of certain skills and abilities. In each case, the items of interest were the ones that loaded on the factor, Collaborative Learning. These were examined for differences in students' perceptions due to their gender and to their academic discipline. So for each survey question two MANOVAs were conducted, one to explore gender differences and another one to explore the differences by study discipline.

The first MANOVA examined the effects of gender on entering female ($n = 848$) and male ($n = 821$) college students' perceived skills and abilities. The MANOVA results revealed strong statistically significant differences for the items listed above, *Wilk's Lambda* = .93, $F(5, 1663) = 26.30, p < .01$ between different gender groups. When the results for the dependent variables were examined separately, there were statistically significant differences found between entering male and female students' perceived organizational skills $F(5, 1663) = 113.09, p < .01$, ability to work in teams to solve problems $F(5, 1663) = 15.48, p < .01$, and ability to communicate with people different from yourself $F(5, 1663) = 11.39, p < .01$. Post-hoc analyses helped us to reveal that in each of these three skills female students' perceptions were significantly higher than those of male students.

The next MANOVA was used to examine differences in type of academic study discipline for entering Engineering ($n=419$), Business ($n=263$), and Liberal Arts and Human Sciences ($n=373$) on students' perceived skills and abilities. The MANOVA results revealed strong statistically significant differences for these skills and abilities, *Wilk's Lambda* = .97, $F(5, 1048) = 3.21, p < .01$ between different study discipline students. When the results for the dependent variables were examined separately, statistically significant differences were found between entering Engineering, Business, and Liberal Arts and Human Sciences students' perceived organizational skills $F(5, 1048) = 3.26, p < .05$, ability to work in teams to solve problems $F(5, 1048) = 4.98, p < .01$, ethical reasoning $F(5, 1048) = 4.40, p < .01$. Post-hoc analyses ($p < .05$) revealed that Business students perceive their organizational ability to be significantly higher than students enrolled in Engineering, while there is no significant difference between Engineering and students of Liberal Arts and Human Sciences. Liberal Arts and Human Sciences students perceive their ability to work in teams to solve problems significantly higher than the other two groups of students. Finally Business students perceive their ethical reasoning significantly higher than the other student of Engineering and Liberal Arts and Human Sciences. Summary results of these two MANOVAs are shown in Table 4.

Table 2: MANOVA results of students' perceptions of proficiency levels as freshmen by gender and student discipline

	By Gender		By Study Discipline	
	<i>F</i>	<i>p</i> <.05	<i>F</i>	<i>p</i> <.05
Students' Skills and Abilities				
Organizational Ability	113.09	*	3.26	*
Ability to work in teams to solve problems	15.48	*	4.98	*
Ethical Reasoning	.38		4.40	*
Ability to work across disciplines	3.20		1.04	
Ability to communicate with people different from yourself	11.39	*	2.08	

Note. An asterisk (*) indicates significant different among groups

To explore students' perceptions of their skills and abilities as they graduate from the university two MANOVAs were conducted. The first MANOVA examined gender differences of graduating female ($n = 835$) and male ($n = 815$) students. The MANOVA results revealed statistically significant differences ($Wilk's\ Lambda = .973, F(4, 1645) = 11.23, p < .01$) between students of different gender. Statistically significant differences found between graduating male and female students' perceived oral communication skills $F(5, 1645) = 6.94, p < .01$, interpersonal (social) skills $F(5, 1645) = 14.52, p < .01$, and ability to communicate with people different from yourself $F(5, 1645) = 8.73, p < .01$. Post-hoc analyses ($p < .05$) helped us to reveal that graduating female students perceive their interpersonal skills and their ability to communicate with people different from themselves to be significantly higher; male students, on the other hand, tend to perceive their oral communication skills as significantly higher than female students.

The second MANOVA examined differences in the perceptions of graduating students from different disciplines (Engineering ($n=414$), Business ($n=261$), and Liberal Arts and Human Sciences ($n=371$)). The MANOVA results revealed statistically significant differences ($Wilk's\ Lambda = .929, F(4, 2080) = 9.76, p < .01$) between students of different academic study disciplines in their interpersonal (social) skills $F(4, 2080) = 25.96, p < .01$, leadership skills $F(4, 2080) = 7.80, p < .01$, and ability to communicate with people different from yourself $F(4, 2080) = 16.35, p < .01$. Post-hoc analyses ($p < .05$) indicated that Engineering students perceive their interpersonal skills and their ability to communicate with people different from themselves significantly as lower than students from either Business or Liberal Arts and Human Sciences. Business students tend to perceive their leadership skills as significantly higher than the other two groups of students. Results of these two MANOVAs are presented in Table 5.

Table 3 :MANOVA results of students' perceptions of proficiency levels at graduation by gender and student discipline

	By Gender		By Study Discipline	
	<i>F</i>	<i>p</i> <.05	<i>F</i>	<i>p</i> <.05
Students' Skills and Abilities				
Oral Communication Skills	6.94	*	2.04	
Interpersonal (Social) Skills	14.52	*	25.96	*
Leadership Skills	.251		7.80	*
Ability to communicate with people different from yourself	8.73	*	16.35	*

Note. An asterisk (*) indicates significant different among groups

CONCLUSION

Both the exploratory factor analysis and multivariate analyses of variance demonstrate clear differences between students' perceptions of their knowledge, skills, and abilities when they enter college and when they are about to graduate from college. Results also indicate that these perceptions vary, based on their gender and academic discipline. Graduating senior students demonstrate differing levels of oral communication skills, interpersonal/social skills, and their ability to communicate with people different from themselves. According to the study results, students in Engineering fields perceived many of their skills and abilities as lower than students in Liberal Arts and Human Sciences or Business. Specifically, Engineering students reported significantly lower scores in interpersonal skills, leadership skills, organizational skills, ethical reasoning and their ability to communicate with people different from themselves.

Moreover, results indicate that female students report higher scores in their level of interpersonal skills, organizational skills, ability to work in team to solve problems, and their ability to communicate with people different from themselves. However, male students reported higher perceived scores in oral communication skills. Further analyses examining the factor structure of the two items mentioned above revealed that male and female college students vary in terms of how they regard their skills and abilities. When gender was included in the analyses both the number of factors and the interpretation of the factors was different for the two gender groups.

These results support the results of previous studies that indicate both gender (Pascarella, 2006; Rocca, 2010; Tatum, Schwartz, Schimmoeller, & Perry, 2013) and academic discipline (Chatman, 2007; Jones, 2008) shape students' perceptions. The continued persistence of gendered majors within the university (Sax, Jacobs, & Riggers, 2010; Zafar, 2013) complicates this relationship.

These study results provide information that may be useful to university administrators and faculty. Key skills and abilities, such as communication skills, critical thinking, computer skills, and leadership skills are inter-related and cannot be developed in isolation. These findings may guide faculty in their development of classroom and co-curricular activities. This study revealed the factor structure of perceptions of students related to their core skills and abilities as they enter and leave the university. These core factors are seen by many (AAC&U, 2007; Dugan & Komives, 2010; Ewell, 2013; Lord, et al., 2012) as related to skills needed to work within a community or a group and skills needed for personal development. Results indicated that the structure of the first item asking about the skills and abilities possessed by entering students could be explained by three factors whereas two factors were enough to explain the structure of the second item asking about skills and abilities possessed by senior students. These conclusions indicate that college students regard their level of proficiency differently as entering and exiting students.

Both faculty and institutions may regard these differences in order to help college students improve their skills and abilities by considering gender differences. This study focuses on how, based on students' responses, these skill areas may be grouped. Knowing areas where students feel they have made lesser gains than in other areas can help faculty, administrators, and staff to re-examine curricula and to offer more focused educational opportunities for maximum student benefit. Further research is needed to study why the students of different academic disciplines and gender differ significantly in their perceptions of their skills and abilities.

The focus of this study was on college students' perception differences of their skills and abilities as they reflected back to the time they entered the university and by the time they graduated from the college. The sample for this study is limited to college seniors at only one large, research-intensive university. Students may not reflect the same attitudes and perceptions as students at other college and universities in the United States or elsewhere. Different perceptions may be indicated from students of non-research-intensive universities and gender and study discipline differences may look different dependent on the mission and student body of the college or university. Furthermore the current study used self-reported data by students and did not have access to information regarding the nature of students' collaborative activities or the role they assumed. So the data represent an indirect measure of what students report rather than a direct measure of their skills. Future researchers may use direct measures to compare students in terms of their collaborative learning skills and not to limit the sample selection to one university.

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Coaches Quality as Predictor of Sports Development in Edo State, Nigeria, West Africa

Awoma Christopher I.

Department of Physical and Health Education

Delta State University Abraka

ABSTRACT

The study examined if quality of coaches is a predictor of Sports Development in Edo State, Nigeria. The study examined how quality of coaches would be a predictor of sports development in Edo State, Nigeria. The ex post – factor design was adopted for the study and the main research instrument used was a modified closed ended Likert type of questionnaire which was validated. The reliability of the instrument was employed using cronbach alpha to determine the internal consistency of the questionnaire and 0.84 was obtained. The data was analyzed using regression statistical analysis set at 0.05 alpha levels. The findings was that, quality of coaches significantly predict sports development in Edo State, Nigeria ($B=0.294$, $T=3.026$, $P<0.05$). The null hypothesis is therefore rejected. Based on the findings, it was recommended that, Government, through her policies should ensure that before anybody becomes a coach, he or she should receive a formal training in coaching and equally ensure that, the coach must have extensive knowledge of the human physiology, growth and development.

KEYWORDS: Coaches Quality, Predictor, Sports Development.

INTRODUCTION

Guidelines for the implementation of Sports Development Policy 1989 states that, there is no way equality of our participation in competitive sports, that can improve without having well trained and experienced coaches in various sports. Coaching is a vital aspect of sports development that shall be given priority accordingly:

- (i). Coaches of sports association shall have free hand in the training, selection and utilization of amateur athletes.
- (ii). Coaches shall be rewarded according to performance and retained or dispensed with on the basis of need and exigency, promotion and deployment of coaches shall depend on performance need and training.
- (iii). Coaches shall be given opportunity to improve performance, through constant expose and training.
- (iv). The welfare of coaches shall be given adequate attention.
- (v). Coaches shall undertake training and participate in workshop and seminars at the National Institution for sports and at other institution abroad.

Jackson (1998) postulates that the most essential requirement in developing top-level athletes is the availability of a world-class coach. Without question, the quality of coaching and the athlete no other single factor is as important.

Coaching in sports as perceived by Pastore and Judd (1992) is characterized as a volatile profession involving many pressures. The kind of pressure according to them arising from coaching sports warrants; coaches spending many long hours performing for competition and during the competitive season, the demands of the job can exceed coaches endurance and ability to cope (Adesanya 1997).

Coaching as a form of instruction places the responsibility for learning on the learner fosters the development and maintenance of skill through vigorous use of specific teaching practices. This process provides continuous feedback in the environment for practice is structured for the displays and mastery of skills (Nettles, 1992). In sports, coaching requires that the coach should possess a leadership quality whose aim is to satisfy the needs of athletes. For the coach to command the respect of the athletes, he must prove to the athlete that he possesses the subject matter of his profession. This will enable the coach to lead by respect not fear. No one leadership style can purely be used all the time by a coach. However, a combination of democratic and autocratic styles of leadership will help the coach to exert control over his athletes.

Akindutire (1987) describes coaching as result oriented career whose level of success is measured by the immediate response to specialized directive from the coach, resulting in quantifiable achievement and high-class performance of athletes. The efficiency of a coach is determined by the winning ability of his athletes who acquire and utilize the techniques offered them through coaching processes. It is a known fact all over the world that the reputation and tenure of office of a coach rest squarely on his ability to produce ever winning athletes or teams.

Coaching in sports has same characteristics with teaching and learning when applied in any educational circle. Therefore, the coach's role first and foremost as observed by Awoma (2012), is to fulfill the role of the teacher. As a teacher, the coach should be a disciplinarian, guidance counselor, and diplomat, also judge and jury roles. The role of salesperson is necessary especially when recruiting, the coach must sell his programme to the school and promising prospective student athletes. The coach should be concerned with the development on or off the field of the athletes being coached. Winning during the competition should not be the only indices for appraising the success of the coach. The coach could as well be evaluated in terms of what kind of people he helped to build. This type of behaviour according to Awoma (2012) is of course reflective of the coach's personal philosophy and dependent on the coach's practices. Ideally, the philosophy of athletes first, winning second, would be the first commandment by which all coaches live.

Coaching in sports is perceived by most people as a profession for veteran sportsmen and women who are no longer active in sports. That is the reason why most athletes who had reached their peak in competitive sports are compensated with the job of coaching. This does not really put coaching on the same formal preparation. This misconception creates doubt in the minds of many people who cannot affix what constitute coaching in sports. Against his background, Boye (2010) suggested that coaches should formally be educated in the field of physical education and sports as part of their preparatory programme. This will help coaches to withstand the challenges of coaching in different situations. This, if a coach finds job in an academic environment, the athletic programme of the student could officially be kept under the control of the coach. This will bring the coach in direct ties to the academic programme of the institutions.

Therefore, the main purpose of this research is to investigate if quality of coaches would predict sports development in Edo State, Nigeria and to determine whether quality of coaches significantly predict sports development in Edo State, Nigeria.

Research Questions:

The research question generated to guide the study is “Would quality of Coaches be a predictor of sports development in Edo State”?

Hypothesis:

The hypothesis was formulated and tested for the study: Quality of coaches would not significantly predict sports development in Edo State, Nigeria.

METHODOLOGY

Population:

The population of this study is eight hundred and ten (810), which comprise two hundred and thirty nine (239) Administrative cadres, two hundred and twenty (220) coaches and three hundred and fifty one (351) programmes athletes of Edo State Sports Council (Edo State Sports Council 2010).

Sample:

A sample size of four hundred and five (405) which comprise administrative cadre of one hundred and twenty (120), coaches one hundred and ten (110) and programme athletes, one hundred and seventy five (175) representing 50% of the entire population where used for the study.

Instrumentation:

The instrument for data collection was self-developed modified Likert type questionnaire items (Q.C.S.D.I) which sought information on predictor of sports development in Edo State. The scoring mode of the questionnaire is a closed ended questionnaire on a four point modified Likert scale type in positive four scores thus: strongly agree, 4 points, agree 3 points, strongly disagree 2 points and disagree 1 point and the adopted questionnaire is given to experts in the area of study for content validity. Their comments, criticisms and suggestions are in corporate in the final copy.

The questionnaire items were drawn from the variable in the research hypothesis; four hundred and five (405) copies of questionnaire forms were produced and administered to the participants used for the study. In order to reach the participants, four trained research assistants were deployed to the various associations in the sports council to administer the questionnaire forms by hand. Three hundred and seventy two (372) were retrieved of which, three hundred and fifty four (354) representing 84.4% where duly and properly filled and those returned ones were used for the analysis of the data for the study.

Data Analysis:

The data were analyzed using descriptive statistics of frequency counts and percentage for the research question, while descriptive statistics of analysis of variance (ANOVA) was used to assess if there is significant difference in the quality of coaches as predictor of sports development in Edo State, Nigeria. 0.05 level of significance was used for the statistical test of analysis.

RESULTS

Would coaches' quality be a predictor to sports development in Edo State, Nigeria?

Table 1: Percentage response of coaches quality as predictor of sports development.

Respondents	Strongly Agree	Agree	Strongly Disagree	Strongly Disagree	Total
Sports Managers	7 18.9%	29 78.4%	1 2.7%	0. .0%	37 100.0%
Coaches	70 67.3%	29 28.7%	2 2.0%	0 .0%	101 100.0%
Athletes	66 40.7%	93 57.4%	3 1.9%	0 0.0%	162 100.0%
Sports Officials	9 45.0%	10 50.0%	1 5.0%	0 .0%	20 100.0%
Others	12 37.5%	20 62.5%	0 0.0%	0 .0%	32 100.0%
Total	164 46.6%	181 51.4%	7 2.0%	0 0.0%	352 100.0%

The results displayed on table 1 indicate the percentage responses of respondents on Research question 1. The result on the table revealed that, one hundred and sixty four (164) 40.6% of the respondents strongly agree while one hundred and eighty one (181) 51.4% agree that coaches quality is a predictor of sports development while (7) 2.0% disagree and Nil representing .0% strongly disagree. The result from the study revealed that coaches quality is capable of predicting sports development in Edo State, Nigeria.

Table 2: Regression analysis on coaches quality as predictor of sports development in Edo State.
Coefficient

Model	Unstandardized Coefficient		Standardized Coefficient	T	Significant
	B	Std error	Beta		
1 Constant	1.300	.181		7.188	.000
Coaches quality	.294	.097	.184	3.026	.003

- (a) **Dependant Variable:** Sports Development (V)
Significant Predictor = Coaches Quality

Hypothesis 1: Coaches quality would not significantly predict sports development in Edo State.

The relative effects of quality of coaches as predictor of sports development in Edo State, Nigeria as shown in table 2 revealed that quality of coaches significantly predicts sports development in Edo State, Nigeria. The table shows the regression weight (B) The Standard error or Estimate SEE (B) and the T-ratio associated with coaches quality. As indicated in the table, the significant T value of .003 is less than the table value of 3.006; as such the null hypothesis which states that quality of Coaches would not significantly predict sports development in Edo State is therefore rejected.

DISCUSSION

From the findings obtained in table 1, the study has show that quality of coaches significantly predicts sports development. This finding is in line with Jackson (1998) who postulated that the most essential requirement in developing top-level athletes is the availability of a world-class coach. Without question, the quality of coaching and the athletes, no other sign factor is as important. Athletes will not develop for without quality coaches creating and directing an intelligent training plan. If coach is highly knowledgeable, motivated, intense and sensitive to individual needs and successful in solving problems, the training environment should generate much success for athletes.

In other words, if coach has poor technical or theoretical knowledge, lacks experience, is unable to direct a comprehensive programme, or is not motivated, or cannot spend necessary time, the athletes will not reach his or her full potentials. In support of this view, Ojeme (2000) opined that among the groups that are involved in sports administration, coaches are the least educated, yet the mantle of development of top athletes is primarily theirs. This finding also agrees with Thompson (1984) that the first and perhaps most important step towards becoming a successful coach is by developing a philosophy. Without a philosophy, a coach will lack the roadmap and direction necessary to achieve his goal. This is true of many endeavours one takes in life. Thompson (1984) further stated that philosophy determines every thought, every decision and every action one makes. In his view further, he said no matter who you are from where you or how you come to be in coaching. You bring ideas, opinions and attitudes from a life – time of personal experience.

The result of the analysis on table 2, also contrast Martens (1987) who stated that philosophy will give a coach direction. If he does not know where is going, any road will get him there. To be a successful coach therefore, he needs to know where he is going. Coaches without a well developed philosophy lack direction and readily succumb to external pressure and this will affect development of sports.

CONCLUSION

The finding of the study confirmed that, quality of coaches is a predictor of sports development in Edo State, Nigeria. While the study revealed that the status of sports development in Edo State, is at its lowest ebb, due to absence of inequality of coaches. The inability for the state government to employ competent coaches to handle most of the important sports in the State has jeopardized sports development in Edo State.

RECOMMENDATIONS

The following recommendations are made to improve sports development in Edo State, Nigeria.

- The State Government through her policies should ensure that before anybody becomes a coach, he or she should receive a formal training in coaching. A situation whereby many coaches do not undergo formal training in coaching must be discouraged.

- The State Government must ensure before engaging any of the coach that he or she must provide social learning experience through sports and must possess good background in psychology, sociology and social psychology especially group dynamics.
- In addition to his knowledge of sports, the coach must have extensive knowledge of the human physiology, growth and development.
- Communication skills are somewhat required for prospective coaches because, this will enhance their ability in public speaking. This is invaluable for the coaches contact with the public and his speeches at sports meets.
- Training in Computer is another valuable area that has much to offer to coaches. Knowledge in Computer Operations will and the coach to deal with data collection, analysis and interpretations. The effectiveness in performing this task solely depends on the coaches computer proficiency.

ACKNOWLEDGEMENT

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Optimization Techniques of Decision Making - Decision Tree

Cezarina Adina TOFAN
cezarina_adina@yahoo.com

ABSTRACT

Modern methods of modeling and simulation of manufacturing processes inevitably lead to a tendency to standardize management judgment to perception phenomena specific industrial management and performance of decision-making. Considering that what happens in a production system similar repeated in other similar systems, identifying an acceptable method of solving problems categories, adopting the same decision in similar situations is convenient and prompt. However, every problem has a unique character management undisputed that a number of specific elements have content, performance or behaviors different single generalized model, the manager must identify those features that lead to the conclusion that every problem, at least partially, is a special case, singular. The realities of the modern society shows us that with the development of the market economy and its increasing complexity, the economic information has to develop appropriately, because it can provide the necessary elements to make decisions, to be able to reflect exactly the patrimonial situation of the economic operators and the economic and financial results, the main objective is to increase the firm value. Management through functions and its attributes is what determines the business objectives, the necessary resources to achieve them and the distribution of the results created by using of these resources. The raw materials that constitute the basis of the management are information and people¹.

Keywords: management methods, decisions

INTRODUCTION

Materialization of the management process involves four subsystems:

Organizational subsystem provides division, combination, functioning of the work processes as an important prerequisite for achieving the objectives;

Information subsystem represents all data, information, circuits and information flows, procedures and means of information processing aimed at the foundation, setting and achieving the goals system of the organization;

Decision-making subsystem encompasses all the microeconomic decisions and the substantiating, adopting and implementing mechanisms of them;

Methodological subsystem is reflected by the systems, methods, techniques, procedures, and rules used in the performance the management process and its functions.

¹ Tofan C. A., *Data base concerning the costing management*, Economic Science Series (Annals of Spiru Haret University. Economic Sciences Series), issue: XV / 2009, pg: 511-514.

Quality of information is a factor that directly affects the quality of the conducted management analyzes and generates the competent decisions².

Importance of the decision lies in the fact that it is found interconnected with all the management functions (Figure 1).

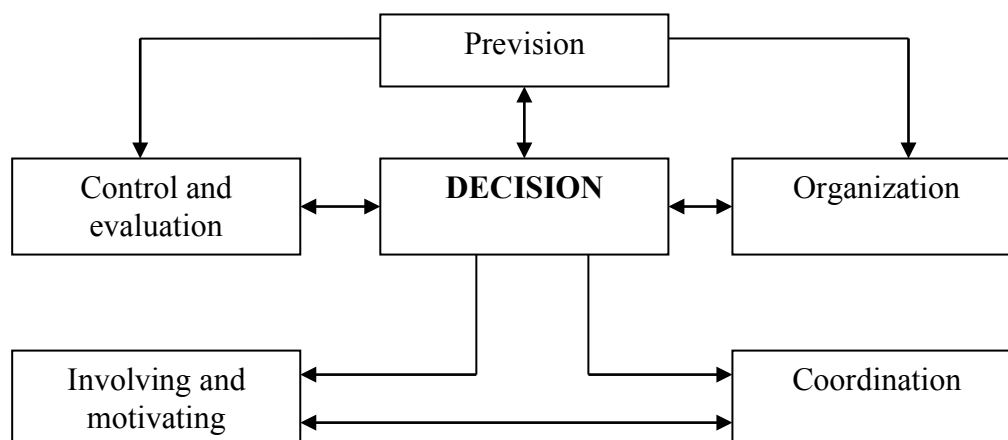


Figure 1. Interconnection of the decision at the management functions

The decision can be defined as the chosen way from several possible to achieve an objective. Quality and the value of the taken decisions by the decision-making system depend on the quality of information. The qualitative characteristics of information can be minimized by the operations to which they are subject, starting with collecting, then through processing and ending with their submission. Thus, the information system is dependent not only on the content, type and the amount of information handled by it but also on the quality of changes which they have undergone.

MATERIALS AND METHOD

Adopting the decision using the decisional tree

Decisions with the random universe are characterized by the following elements: factors and decisional consequences are not known perfectly, there are a multitude of consequences and there is possibility to assign a probability to each consequence.

Probability calculation allowed determining the optimal alternative that maximizes the economic function determined by the decision maker. In this case, the decision criterion is the mathematical expectancy that applies to the repetitive decisions.

Function to calculate the mathematical expectancy of winning is calculated using the formula:

$$E_{mj} = \sum_{j=1}^n p_j * R_{ij} \quad (1.1)$$

In which:

E_{mj} is the mathematical expectancy of gain for the i decision (i version)

p_j is the probability of achieving of the j criterion results

R_{ij} symbolizes the result for p_j probability

² Tofan C. A., *The management of the informatics systems projection*, *Review of General Management*, Brasov, vol. 10(2), pg. 40-49, 2009.

Within the enterprises, the types of economic problems which have a random future are very numerous. The complex situations benefit of achieving good results, for determining the optimal decision using the decisional tree method.

Steps that should be taken to implement the decisional tree method are³:

- Defining the decisional problem to be optimized and the main events that probabilistic influence the decisional consequences;
- Graphical representation of the tree, which is consisted alternatively by the decision and hazard periods;
- Determining the decisional consequences for each alternative using the probabilities of occurrence and manifestation of the events. Probabilities are determined by statistical, analytical or empirical methods and the decisional consequences are type of profit, cost, productivity, production capacity, level of sales, etc.
- Choosing the optimum by calculating the mathematical expectancy for each consequence and alternative decision. The optimal variant would be one that has higher mathematical expectancy value.

The decision tree is used for the complex decisions such as those for the investment optimization, assimilating in manufacturing of a new product, selling products and others.

Adopting the decision using the decisional tree method – the case study

An enterprise that has as main activity the production of parts for the machine building industry wants to introduce a new product on the market. To assess the launch on the market, from the competition point of view, we have the market variant with high competition and the market variant with low competition. To achieve the decision tree, there was used as an average price for one unit, the price of 24 euro / piece at a monthly sales volume between 250 and 300 pieces.

If the product is launched on the market with high competition, we have two situations: the main competitors to react to the emergence of the new product and to intensify the promotion, case with a probability $p = 0.6$ or competitors do not react, in which case $p = 0.4$.

Depending on the reaction of the main competitors, where they will react, the firm will act in a proper pricing policy, with the prices below the average and maintaining sales volume ($p = 0.3$), in which it would have a sale of 7200 euro/month, or it will keep the stable average price, but will decrease the volume of sales, in which case the sale would be 5700 euros/month.

If the competition does not respond, it will be kept a moderate price and the weighted sales volume, case with $p = 0.6$ and a sale of 6600 euro/month.

For the situation when the company would choose to sell the product in a market where the competition is low, the implemented decisions would be to increase the sale of products at a lower price than the competition ($p = 0.5$), or to increase the volume of sales at a similar price to that of the market. Depending on the response of the competition it may choose to maintain the average price and an increased sales volume in the case when the competition does not respond ($p = 0.7$), or to maintain the high volume of sales at a price below the competition price, in which the sale would be of 7500 euros/month.

³ Rațiu-Suciu C., *Modelare economică*, ASE Publishing House, Bucharest, 2007, pg. 286.

Decisions, the competitor reactions and the appropriate results for each probability and the probability that an event will happen, there are shown directly on the decision tree shown in Figure 2.

In this tree there are used the following notations:

- Roads (arcs) symbolized by a square and marked with numbers (0 ... 4 ... 20), corresponding to the company decisions;
- Roads (arcs) symbolized by a circle and marked with letters (A, B ... J), corresponding to the interventions chance, respectively the reaction of competition;
- p = probability;
- R = net result of the decision for the period;
- Increased competition (CS), low competition (CS) decision alternative of the enterprise or of the competition.

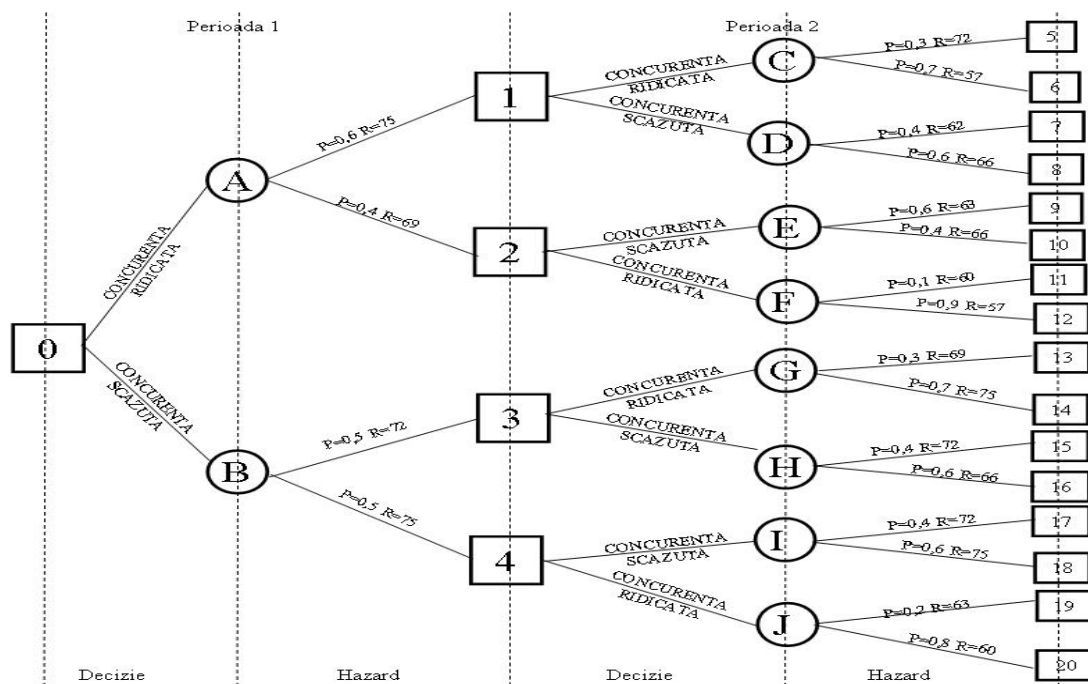


Figure 2. Decisional tree

Based on the presented data it can be determined the decision that may be taken. For this we calculated the value of each road that lead to the original decision.

For each stage, there is calculated the expectancy of gain (E) from the end of the graph, by applying the formula (1.1):

$$E(C) = 0.3 \cdot 72 + 0.7 \cdot 57 = 60.8 \tag{1.2}$$

$$E(D) = 0.4 \cdot 62 + 0.6 \cdot 66 = 64.4 \tag{1.3}$$

$$E(E) = 0.6 \cdot 63 + 0.4 \cdot 66 = 64.2 \tag{1.4}$$

$$E(F) = 0.1 \cdot 60 + 0.9 \cdot 57 = 57.3 \tag{1.5}$$

$$E(G) = 0.3 \cdot 69 + 0.7 \cdot 75 = 73.2 \tag{1.6}$$

$$E(H) = 0.4 \cdot 72 + 0.6 \cdot 66 = 68.4 \tag{1.7}$$

$$E(I) = 0.4 \cdot 72 + 0.6 \cdot 75 = 73.8 \tag{1.8}$$

$$E(J) = 0.2 \cdot 63 + 0.8 \cdot 60 = 60.6 \tag{1.9}$$

After the calculations, it results that a number of roads can be removed. If the company leaves from point 1, it is clear that we must choose the road D because the mathematical expectancy value is greater than $64.4 > 60.8$. So, it is eliminated the C5 and C6.

A similar procedure is applied to others possibilities and the tree is simplified. So, it results a simplified tree shown in the following figure:

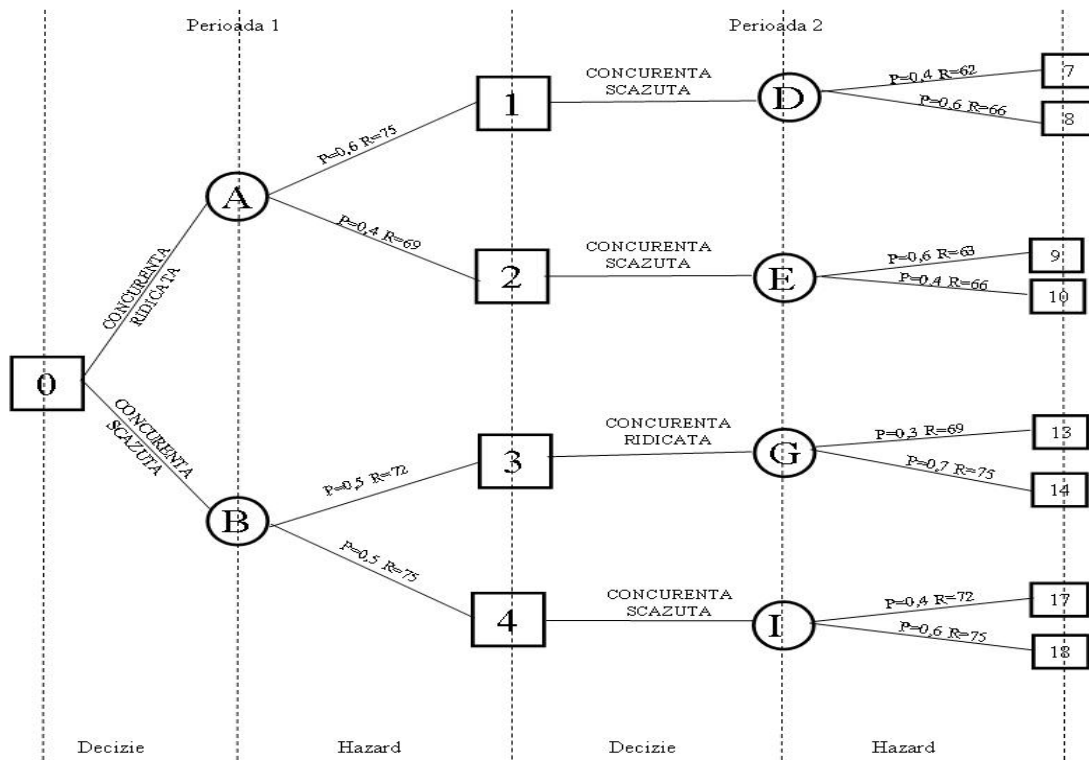


Figure 3. Decisional tree after eliminating of some branches resulted from calculations

$$E(D) = 0.4 \cdot 62 + 0.6 \cdot 66 = 64.4 \tag{1.3'}$$

$$E(E) = 0.6 \cdot 63 + 0.4 \cdot 66 = 64.2 \tag{1.4'}$$

$$E(G) = 0.3 \cdot 69 + 0.7 \cdot 75 = 73.2 \tag{1.6'}$$

$$E(I) = 0.4 \cdot 72 + 0.6 \cdot 75 = 73.8 \tag{1.7'}$$

Thus, it can be calculated the expectancy of gain for every road to the end of the first period (in A and B):

$$E(A) = 0.6 \cdot E(A,D) + 0.4 \cdot E(A,E) = 0.6(75 + 64.4) + 0.4(69 + 64.2) = 137.92 \tag{1.10}$$

$$E(B) = 0.5 \cdot E(B,G) + 0.5 \cdot E(B,I) = 0.5(72 + 73.2) + 0.5(75 + 73.8) = 147.3 \tag{1.11}$$

The tree can be simplified further and result the situation from the following figure:

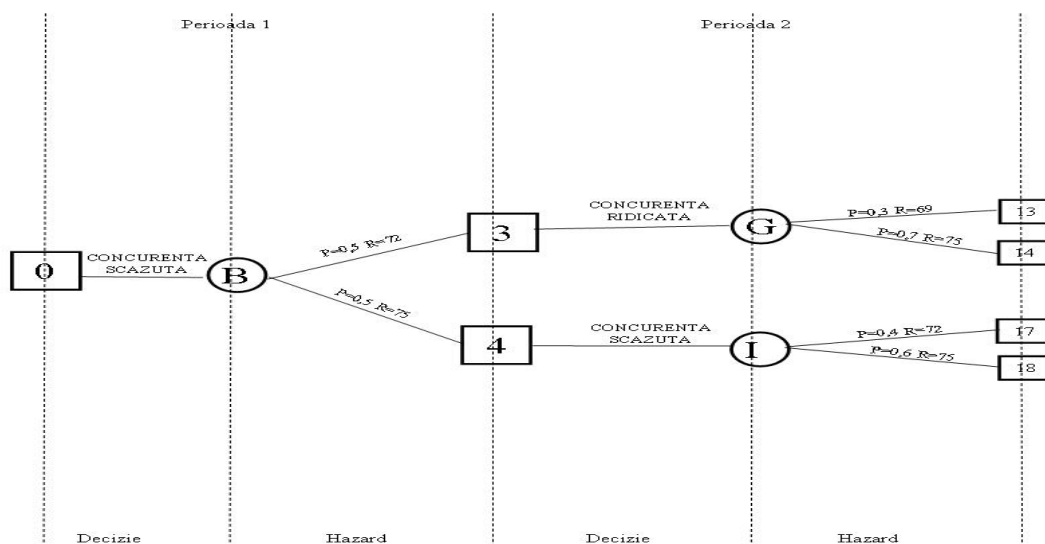


Figure 4. Decisional tree after eliminating of some branches resulted from the expectancy of gain calculations

It can be concluded that the tree allows taking the first optimal decision, so the company must enter on the market with the low competition, because the expectancy of gain is of 147.3 to 137.92 for the market with high competition.

The following decisions are conditioned by the competition reaction. Thus, if the competition reacts (point 3), the company will have to fight back by decreasing the price over the competition, keeping constant the sales volume, and where competition does not react (point 4), the company will keep the sale volume and simultaneously will be able to increase the price over the competition.

Actually, the uncertain and changing environments, in which the companies operate, lead to the occurrence of very many unforeseeable situations and indicated to substantiate scientifically the decisions.

The decisional tree method is applied in situations when the hazard periods (risk) succeeding the decision periods, with several possible consequences, which may be associated a probability.

The probability of the risk represents the possibility that risk to occur. According to the probability theory, it is called the *probability* of the event A (denoted by P(A)) the ratio between the *m* number of the favourable results for occurring the event A and the total number *n* of the experimental results considered equally possible (all the results are possible):

$$P(A) = \frac{m}{n} \tag{1.12}$$

Where:

m = number of favourable results for occurring the event A

n = total number of experimental results considered equally possible (all results are possible)

The impact of the risk indicates the effect of the risk on the organization's objectives if it is manifested. The probability and the impact of the risk are assessed as:

- High,
- Moderate,
- Low.

To perform the matrix of the risk score, it is used to calculate the risk score the following formula:

$$\text{Risk Score} = \text{Probability} \times \text{Impact} \tag{1.13}$$

To determine the scores for each risk, it is drawn up the matrix of the risk score according to the table Example 1.

Table Example One Matrix of the risk score

Probability	Impact of the risk				
	0.05	0.1	0.2	0.4	0.8
0.9	0.045	0.09	0.18	0.36	0.72
0.8	0.04	0.08	0.16	0.32	0.64
0.7	0.035	0.07	0.14	0.28	0.56
0.6	0.03	0.06	0.12	0.24	0.48
0.5	0.025	0.05	0.1	0.2	0.4
0.4	0.02	0.04	0.08	0.16	0.32
0.3	0.015	0.03	0.06	0.12	0.24
0.2	0.01	0.02	0.04	0.08	0.16
0.1	0.005	0.01	0.02	0.04	0.08

- Score <0.05 - low impact (green)
- 0.05 <= Score <0.15 - moderate impact (yellow)
- Score >= 0.15 - high impact (red).

CONCLUSION

Through the quantitative analysis aims the numerical evaluation of the probability and impact of each risk on the organization's objectives. With this method there are represented the decisions and the random events as they are perceived by the decision makers.

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Ethnic Identity, Social Class and Consumption Pattern Among Three Major Ethnic Groups in Nigeria

Owolabi, A. B

Department of Psychology
Ekiti State University, Ado Ekiti

ABSTRACT

Consumers from different ethnic group and social class are known to vary dramatically in how they spend their income. In this study we aim to shed light on how ethnic identity and social class affect consumption pattern of the three major ethnic groups in Nigeria. A total of 398 participants drawn from three states across the country took part in the study. Three standardize instruments were used to collect data. Three hypotheses were tested. Results reveal partial significant effect of ethnic identity, ethnic group and social class on consumption pattern.

Keywords: Ethnic Identity, Social Class, Consumption pattern, Consumer Behavior

INTRODUCTION

Over the course of its history, individuals from different culture and social class have not only form a unique culture but also generate a number of different sub-cultures that differentiate them from members of other ethnic groups or social class including their consumption pattern. A key feature of these groups is that they tend to be bound together by cultural ties that can strongly influence their behaviours as consumers. Consumption is not merely an act of buying and consuming goods and services; rather, as theorist and researchers have for the past few decades investigated, the process possesses what we might call a “hidden meaning”. In the words of Mcnall (1990), the latent function of consumption focuses on self-identification: we actively purchase and consume, engage in display of our goods, as a way of telling people who we are or who we wish to become”.

Hence, the psychological definition of consumption is that goods and services are symbols of our self identity. Obaid (2000) suggested that researchers have long been concerned with what motivate people to consume, and they have discovered that self identity plays a significant role in determining what and how we consume. Consumers from different ethnic group and social classes show different motivation for consumption as well as different objectives. The key element in consumption studies is that as consumption practices allows common identities to be established among people, it could also serve as a way of distinguishing them (Longhurst and Mike, 1996). From the consumer behavior perspective consumption is largely understood as a cultural phenomenon because behavior pattern characteristic of a particular culture are often expressed through consumption of material objects such as, dress, food, and housing (Royce, 1982). The underline premise of research on ethnicity and social class has been that sub-culture, while sharing the value and norms of dominant culture express certain significant differences of their own ethnic group. A critical evaluation of recently published article in the area of consumer behavior shows that ethnicity and social class is receiving the necessary attention. Despite the progress made at documenting the effect of ethnicity and social class on consumption pattern, there are limited researches on Africa and particularly Nigeria.

Nigeria is a multi ethnic society. Opinions are divided among scholars about the actual number of ethnic groups in the Nigeria state but generally, it is believe that the country has over 250 ethnic group. Most of these ethnic groups have distinct customs, traditions and languages. The larger and dominant groups include the Yoruba, Igbo and the Hausa/Fulani. The Yoruba people occupy the south western part of Nigeria and they are concetrated in about nine states, the Igbo inhabit the south eastern part of the country and they can be found in about eight states while the Hausa/Fulani is dominant in the northern part of the country and they can be found in about twelve state of the country. This three major ethnic groups have influenced the small ethnic groups within their regions to the extent that the smaller ethnic group have assimilate the culture of the three dominant ethnic groups.

Ethnicity and Consumption Pattern

Numerous studies such as Penaloza, (1994); Stayman and Deshpande, (1989); Wallendorf and Reilly, (1983) highlights the process by which culture -specific consumption behavior develops durings the transitional period of young adulthood. Arnett (2000) documented on the concept of ethnic identity, the period from 18 to 25 years of age, which Arnett labels as emerging adulthood, represents a developmental stage distinct from other periods. During this critical developmental period young adults develop a subjective sense of identity through experimentation and explorations (Erikson, 1968). He further suggested that besides acquiring significant buying power in the market place, young adults develop new consumption patterns that exert a major influence on their behavior as consumers in later life (Olshavsky and Grambors, 1979). Important influence on consumption patterns are the consumer's level of acculturation and intensity of ethnic group identification. Consumers who strongly identify with their ethnic group and who are less acculturated into the mainstream culture are more likely to exhibit the consumption pattern of their ethnic group.

In their study of an ethnicity, specific content, Stayman and Deshpande (1989) introduced a "felt ethnicity" construct and differentiated it from objective ethnic membership (i.e. self – designated ethnicity) by stating that felt ethnicity in "not just who one is, but how one feels in and about a consumption". Their research findings further indicated that different social situations (i.e. the presence of parents or business associates in the consumption situation) produce different, corresponding effects on the strength of one's felt ethnicity and ethnic consumer behavior.

Forehand and Deshpande (2001) concluded that individuals do not need strong ethnic identification to feel attachment to their ethnicity in a particular situation. According to Sekhon and Szmigin (2005) and Hirschman (1981), combining the objective and subjective characteristics is not enough. It is necessary to measure the intensity of attachment to and identification with the ethnic group. The degree of identification with an ethnic group determines the level of group influence on behaviours and attitudes. Donthu and Cherian (1994) show that the intensity of identification with an ethnic group is a significant factor in explaining purchasing decisions. Different ethnic groups will choose and select different foods. This is because people who belong to ethnic groups will have been raised and brought up in a certain style and manner. This means factors such their outlook and attitudes towards life and people, health and even food choices will be greatly influenced by their ethnic group. These factors among others are instilled into individuals of these groups at an early age. The different values, which influence these factors, emanate from the country where each of these ethnic groups originates.

Social Class and Consumption Pattern

Most societies can be divided into social class hierarchy, whereby some individual have higher status than others. These social classes are identifiable groups of individuals whose behaviours and lifestyles differ from those of other classes. Members of a particular social class tend to share similar values and behavior pattern. Since the 1950s, social class has played a major role in consumer behavior studies. Even in the late 1940s, research conducted by the Chicago group discovered that upper-middle class Americans “were pursuing different goals in home furniture, appliances, clothing, and leisure time than the lower- middle, who in turn were displaying consumption objectives (and aesthetic preferences) markedly different from upper lowers” (Coleman 1983). Later, Martineau (1957) takes the lead in class consumption research by paying more attention to social class as a variable that could significantly influence trends in the market place (Coleman 1983). The findings of the study suggest that the consumption patterns of social classes reflect quite different choices or motivations, (Coleman 1983). Moreover, in his 1960 study, Coleman (1983) verified that class affects consumption decisions. The relationship between consumption and social class is self-reflexive. In other word, as social class influences consumption pattern, so consumption pattern reflects one’s social class or status. With consumption, people shape or even reshape their identities, positions, and status in society.

Gilbert and khan (1982), state that “social classes generate their own subculture, distinctive in life styles and consumption (Coleman 1983). Among the earliest of consumption studies researchers; Veblen (1990) was interested in the ways different social classes consume. By studying the purchasing practice of the propertied and “property less” classes, he was able to discover that the former direct their production and consumption in ways that maintain their positions of social power and defend them against the dispossessed. One of his most recognized ideas involve what we might call “showing off.” In other words Veblen believes quite adamantly that the rich display their wealth in a “show” that requires exercise and learning which other cannot possess or afford because work mere survival takes all their time. Veblen’s theories suggest that since this type of consumption is based on the arrogance and self assertion of upper classes, it creates and attempt to perpetuate situation of class conflict and domination. While the upper class consumes for social power, the property less classes consume for physical: to restore the body’s capacity to do wage labor (Otnes 1988).

When deciding what to buy, middle class groups were found to be more concerned about health issues, and they displayed a higher degree of sharing the decision-making –process about selection than did working class groups. Working class groups were discovered to spend according to what they have financially, while middle class groups spent according to what they needed (Calnan and Cant 1990). Consumption of food is considered to be one of the most important expenditures in any discussion of consumption patterns. Obaid and Al-modaf asserted that, although they have the smallest family size, lower class families rank first in spending on food (19.7% of total expenditures), one-third of consumers from the upper class spend money on food away from home, while less than a quarter of the lower class do so. Food consumption during outing is not just entertainment; rather, it has become a way of publicly declaring one’s social status.

HYPOTHESIS

- There will be a significant difference between those who identifies with their ethnic group and those who do not identify with their ethnic group on consumption pattern.
- There will be a significant difference between high social class and low social class on consumption pattern.
- There will be a significant effect of ethnic group on consumption pattern.

METHODS

Participants and Procedure

The sample included three hundred and ninety eight (398) participants, drawn from workers in Ekiti (Yoruba), Imo (Igbo) and Kaduna (Hausa) State. Out of the three hundred and ninety eight (198) Participants, two hundred and seventy-one (271) were males while one hundred and twenty-seven (127) were females. The study used three (3) ethnic groups which are Yoruba, Hausa and Igbo. The Participants includes: one hundred and forty-four (144) people from the Yoruba ethnic group, one hundred and twenty- six (126) from the Hausa ethnic group and one hundred and twenty-eight from the Igbo ethnic group. All the participants collect their income monthly. Of the three hundred and ninety eight (398) Participants, (216) of them are from low social economic status while one hundred and eighty-two of them (182) of them are from high social economic status. Multi stage sampling method was used, first, to select one state out of the state dominated by each ethnic group and secondly to select institution visited in the state and finally the selection of the participants . It took just approximately 20 minutes for the participants to complete the questionnaire which were collected immediately from some participants and later from some. In some instances, the researcher was asked to come back for the collection of the instruments because of the busy schedule of the workers; it took one month and two weeks for the researcher to finish administering the questionnaires because of the distance among the state visited. Out of five hundred (500) questionnaires that were administered, three hundred and ninety eight (398) was retrieved by the researcher and considered fit for analyses.

Measures

Multi Group Ethnic Identity Measure (MEIM) developed by Phinney J.S (1992) was used to measure ethnic identity. It is a eight (8) items Scale developed to measure how inclined an individual could be to his/her ethnic group. It is scored on a five (5) item Likert format which range from Strongly Agree, Agree, Undecided, Disagree to Strongly Disagree. Each of the eight (8) items has an inter-rater reliability which are as follows: 0.76, 0.75, 0.72, 0.69, 0.69, 0.69, 0.66 and 0.65 while the general reliability is 0.85.

Consumption Pattern was measured using a self developed questions meant to ascertain the consumption pattern of people. It consists of 13 items which are specifically design for this study. It is rated in percentages ranging from 0-20%, 21-39%, 40-59%, 60-89% and 90-100%. Consumers were asked to indicate what percentage of their income is spent on each item.

Social class was measured using a the Computerized Status Index (CSI). The CSI attempts to assess consumer' social class by measuring the various key determinants which include educations, occupation, area of residence and income and combining them to form an overall index. The higher the score the higher the social standing. The Computerized Status Index is an improved and better measure of social status over and above previously used measures such as Index of Status Characteristic and Index of Social Position.

DATA ANALYSIS

Independent t test and one way ANOVA was used to test the hypotheses. Independent t test was used to test hypothesis 1, 4 & 5 while one way ANOVA was used to test hypothesis 2 and 3.

RESULTS

We hypothesised that there will be a significant difference between those that identified with their ethnic and those that do not identified with their ethnic group on consumption pattern.

The hypothesis was tested using the independent t-test and the result is presented in the table below.

Table 1: Independent t test table showing the difference between those that are identified with their ethnic and those that are not identified with their ethnic.

VARIABLES	ETHNIC GROUP IDENTIFICATION	N	X	SD	SE	Df	t	P
FOOD	HIGH	250	2.64	.72	.05	396	3.20	>.05
	LOW	148	2.20	.61	.08			
CAR OWNERSHIP/FUEL	HIGH	250	1.36	.87	.07	396	-1.96	<.05
	LOW	148	1.65	.88	.12			
ALCOHOL/TOBACCO	HIGH	250	1.27	.72	.05	396	-.38	<.05
	LOW	148	1.31	.74	.10			
CLOTHING	HIGH	250	2.63	.71	.05	396	2.90	>.05
	LOW	148	2.12	.73	.10			
PERSONAL ITEMS	HIGH	250	2.46	.82	.06	396	2.41	>.05
	LOW	148	1.98	.72	.10			
TRANSPORTATION	HIGH	250	2.52	.99	.08	396	1.56	>.05
	LOW	148	2.27	.84	.12			
MEDICAL EXPENSES	HIGH	250	1.60	.81	.06	396	.45	>.05
	LOW	148	1.54	.65	.09			
SAVINGS	HIGH	150	2.24	.73	.06	396	2.53	>.05
	LOW	148	2.74	.65	.09			
EXTENDED FAMILY	HIGH	250	2.70	.89	.07	396	2.52	>.05
	LOW	148	1.63	.73	.10			
SCHOOLING	HIGH	250	1.81	1.01	.08	396	-1.89	<.05
	LOW	148	2.12	.91	.13			
ENTERTAINMENT	HIGH	250	1.83	.72	.05	396	2.89	>.05
	LOW	148	1.44	.61	.08			
COMMUNICATION	HIGH	250	2.39	.66	.05	396	3.35	>.05
	LOW	148	1.75	.63	.09			
ELECTRICITY	HIGH	250	1.87	.84	.06	396	.24	>.05
	LOW	148	1.83	.75	.10			

As indicated in table 1 above, the result shows that there are significant difference in consumption pattern between those that identified with their ethnic group and those that do not identified with their ethnic group on majority of the items. Those that are high in ethnic group identification are shown to spend larger percentage of their income on items such as food, clothing, personal items, transportation, extended family issues, entertainment and communication while those that are low in ethnic identification are shown to save larger percentage of their income than those that identified with their ethnic group. The result also shows that there are no significant difference between those that identified with their ethnic group and those that do not identified with their ethnic in the consumption of such items as car ownership, alcohol and tobacco, medical expenses, schooling and electricity.

Since Eight (8) items out of the thirteen (13) items indicated that there is a significant differences between those that identified with their ethnic group and those that do not identified with their ethnic group on consumption pattern and five (5) out of the thirteen (13) indicate that there are no significant differences in consumption pattern between those that identified with their ethnic group and those that do not identified with their ethnic, the hypothesis is therefore, partially supported. The second hypothesis which stated that there will be significant difference between high social class and low social class on consumption pattern was tested using the independent t-test and the result is presented in the table below.

Table 2: Independent t test showing the difference between high and low social class on consumption pattern

VARIABLES	SOCIAL CLASS	N	X	SD	SE	Df	T	P
FOOD	HIGH	216	2.88	.72	.06	396	2.79	>.05
	LOW	182	2.50	.65	.07			
CAR OWNERSHIP/FUEL	HIGH	216	1.46	.88	.08	396	2.52	>.05
	LOW	182	1.89	.88	.09			
ALCOHOL/TOBACCO	HIGH	216	1.25	.67	.06	396	0.64	<.05
	LOW	182	1.31	.79	.08			
CLOTHIGN	HIGH	216	2.31	.69	.06	396	2.42	>.05
	LOW	182	2.06	.74	.08			
PERSONAL ITEM	HIGH	216	2.19	.80	.07	396	1.43	<.05
	LOW	182	2.02	.80	.08			
TRANSPORTATION	HIGH	126	2.54	.99	.09	396	1.45	<.05
	LOW	182	2.34	.90	.10			
MEDICAL EXPENSES	HIGH	216	2.68	.84	.07	396	3.86	>.05
	LOW	182	1.46	.67	.07			
SAVINGS	HIGH	216	2.23	.71	.06	396	1.85	<.05
	LOW	182	2.42	.73	.08			
EXTNDED FAMILY	HIGH	216	1.77	.87	.08	396	1.84	<.05
	LOW	182	1.55	.81	.09			
SCHOOLING	HIGH	216	1.77	1.97	.09	396	2.06	>.05
	LOW	182	2.06	1.01	.11			
ENTERTAINMENT	HIGH	216	1.28	.62	.05	396	2.98	>.05
	LOW	182	1.68	.78	.08			
COMMUNICATION	HIGH	216	1.47	.69	.06	396	2.22	>.05
	LOW	182	1.89	.65	.07			
ELECTRICITY	HIGH	216	1.92	.85	.07	396	1.30	<.05
	LOW	182	1.77	.75	.08			

As indicated in the table 2 above, the results show that there are significant differences between high social economic class and low social class on consumption pattern. The high social economic class spends a higher percentage of their income than the low social economic class on food, clothing and medicals while the low social economic class spends higher percentage of their income than the high social economic class on car maintenance, schooling, entertainment and communication. The results also reveals that there is no significant difference in consumption pattern between high and low social economic high and low social economic class in alcohol/tobacco, personal items, transportation, savings, extended family issues and electricity consumption. The hypothesis is partially supported.

The third hypothesis which stated that there will be a significant effect of ethnic group on consumption pattern was tested using one way ANOVA and the result is presented in the table below.

Table 3: One way ANOVA table showing the effect of ethnic group on consumption pattern

VARIABLES	YORUBA N=104		HAUSA N=26		IGBO N=68		Group effect P
	X	SD	X	SD	X	SD	
FOOD	2.55	.69	2.46	.58	3.73	.74	F(2,395)=3.97 > .05
CAR OWNERSIH/FUEL	1.40	.88	1.58	.95	1.29	.81	F(2,395)= 1.42 < .05
ALCOHOL/TOBACCO	1.30	.65	3.46	.70	1.47	.78	F(2,395)=3.50 > .05
CLOTHING	4.90	.71	2.23	.71	2.36	.71	F(2,395)=2.98>.05
PERSONAL ITEMS	1.99	.85	2.11	.58	2.32	.76	F(2,395)=1.63 <.05
TRANSPORTATION	2.27	.89	2.23	.99	2.42	1.05	F(2,395)=1.92 <.05
MEDICAL EXPENSES	1.38	.71	1.73	.60	1.83	.85	F(2,395)=1.99< .05
SAVINGS	2.34	.80	2.19	.63	2.70	.62	F(2,195)=2.46 > .05
EXTENDED FAMILY	1.76	.78	1.73	.72	2.00	.91	F(2,395)=1.79 <.05
SCHOOLING	2.89	1.06	2.11	.90	1.79	.92	F(2,395)= 2.98 <.05
ENTERTAINMENT	1.31	.77	1.53	.70	1.32	.56	F(2,395)= 1.03<.05
COMMUNICATION	1.49	.68	1.69	.67	3.39	.64	F(2,395)=2.27 >.05
ELECTRICITY	1.98	.78	2.10	.71	2.02	.82	F(2,395)=1.94 <.05

As indicated in the table 3 above, the result shows that there is significant effect of ethnic grouping on consumption pattern. The Yoruba spend higher on clothing and schooling; the Igbo spend higher on food, savings and communication while the Hausa spend higher on alcohol and tobacco. There is no significant difference among the three ethnic groups in the percentage of income spend on car maintenance, personal items, transportation and extended family. Therefore, the hypothesis which stated that there is significant effect of ethnic group on consumption pattern is partially supported

DISCUSSION

As suggested at the onset, the main purpose of this study is to find out if ethnic identity and social class have effect on consumption pattern among the three major ethnic groups in Nigeria. On the basis of the research that has yielded interesting findings, it is observed that the first hypothesis which stated that there will be a significant difference between those who identifies with their ethnic group and those who are not identified with their ethnic group and consumption pattern was partially supported. The result reveals that those that are high in ethnic group identification are shown to spend larger percentage of their income on items such as food, clothing, personal items, transportation, extended family issues, entertainment and communication while those that are low in ethnic identification are shown to save larger percentage of their income than those that identified with their ethnic group. This shows that the observed difference exist in the consumption of things that are ethnic group specific. The findings is in sport of a study by Jing, Seyeon, Sherry, and Almeda (2004) in which they indicated that there is a significant effect of ethnic identity on an Asian American young adult's ethnic food and entertainment consumption behaviour, that is, Asian American young adults who have a stronger sense of ethnic identity consume ethnic food and attend ethnic

entertainment activities. Their study also found out that the extent to which Asia American young adult engage in culture specific consumption behaviour, changes significantly. When the young adult is in the company of ethnic friends versus Caucasian American friends regardless of their strength of ethnic identity, Asian American college student tend to consume more culture specific product when they are with their ethnic friends than when they are with American-mainstream friends.

In order to better understand the factors that influence ethnic identity and consumption diversions Moschis and Chruhchill (1978) developed model. Essentially, the model assumes that young people acquire certain mental and behavioural outcomes through their interactions with various socialization agents (Moschis 1987; Ward, 1974), parents and friends were considered a specialization agents, and the young adults perceived interaction with these two specialization agents was then presumed to produce two types of outcomes; ethnic identity as a mental outcome and culture specific consumption behaviours as a behavioural outcome. Stayman and Deshpande (1989) indicated that different social situation i.e the presence of parents and business associate in the consumption situation produce different corresponding effect on the strength of one's felt ethnicity and ethnic consumer behaviour. Forehand and Deshpande (2001) concluded that the individual do not need strong ethnic identification to feel attachment to their ethnicity in a particular situation. Therefore, we conclude that consumers who strongly identify with their ethnic group exhibit the consumption pattern of their ethnic group.

Hypothesis two which stated that there will be a significant difference between high social and low social economic class on consumption pattern was partially supported. The high social economic class spends a higher percentage of their income than the low social economic class on food, clothing and medicals while the low social economic class spends higher percentage of their income than the high social economic class on car maintenance, schooling, entertainment and communication. It can be observed that the social class engaged in conspicuous consumption. Obaid (2000) suggested that researchers have been concerned with what motivated people to consume and he have discovered that involvement in the mental and physical process of consumption, social class plays a significant role in determining consumptions, significant differences existed between the social classes on those products that can be seen. The visibility of these goods and services is critical because messages will not be communicated if others cannot see them. Consumers from different social classes show different motivation for consumption. As well as different objectives, for example, the factors that motivate upper class consumers to purchase a particular product might not be found at the same level or even all among those of the lower classes. Therefore, each class can be said to posse's different primary and secondary consumption needs, the fulfillment of which is the main objectives of consumption need.

Among the earliest of consumption studies, researcher Veblen (1990) was interested in the ways a different social class consumes. By studying the purchase practices of the 'propertied' and 'property less' classes, he was able to discover that the former direct their production and consumption in ways that maintain their positions, and that the most recognized ideas involves what we might call "showing off". In other words, Veblen believed quiet adamantly that the rich display their wealth in a "show" that requires exercise and learning which others can not possess or afford because work-mere-survival takes all their time. While upper class consumes for social power, the property less classes consumes for physical power to restore the body's capacity to do wage labour (Otné 1988). Martineau (1957) took a lead in class consumption research by paying more attention to social class as a variable that could significantly influence

trends in the market place (Coleman 1983). The findings of their ground breaking study suggest that the consumption pattern of different social classes reflects quality and taste, lower-middle reflects respect and conformity, upper-lower class reflects modernity and quantity, while lower-lower reflects instant gratification. .

The social class/status of individual determines the consumption behavior of an individual. The social class/status which also include our educational level can also influence our consumption pattern in the sense that educated people tends to go for products they have more knowledge/information about. Educated people don't really go for cheap things even when they are not financially buoyant, they will rather wait till they have the money for that particular product of their choice. Unlike the illiterate/less educated ones that go for cheap things and they don't also have knowledge/concrete information on their products. In terms of food, using tomato for example, it was discovered that the illiterates go for spoilt tomatoes popularly known as "esa" because it is very cheap and much. Whereas, the educated ones will not want to go for the spoilt tomatoes (esa) because they are aware of the damage it results to in our body when taken in i.e they have the information/knowledge of what the spoilt tomatoes can do in the body system.

Hypothesis three which stated that there will be a significant effect of ethnic group on consumption pattern was also partially supported. The Yoruba spend higher on clothing and schooling; the Igbo spend higher on food, savings and communication while the Hausa spend higher on alcohol and tobacco. There is no significant difference among the three ethnic groups in the percentage of income spend on car maintenance, personal items, transportation and extended family. The Yorubas are naturally known to be more flamboyant in dressing than any other tribe in Nigeria while the higher spending can be attributed to the first contact with the missionary which has place the Yoruba ethnic higher than any other ethnic group in Nigeria on the literacy level. That the Ibos spend more on food than the other two tribes is also not surprising anecdotal evidence suggest that Ibos place much emphasis on the food they consume thereby spending more on food consumption but what is surprising is that the Hausa/Fulanis spend higher on alcohol than other ethnic group since majority of the Hausa/Fulanis are known to be Muslim and by religion Muslim detest the consumption of alcohol. In their study Dindyal and Dindyal (2004) discover that different ethnic groups will choose and select different foods and some other products that goes in line with their ethnic group. This is because people who belong to ethnic group will have been raised and brought up in a certain style and manner. Factors such as their outlook and attitudes toward life and people, health and even consumption choices is greatly influenced by their ethnic group.

Sekhon and Szmigin (2005) and Hirschman (1981) discovered that the degree of identification with an ethnic group determines the level of consumption behaviour. Donth and Cherian (1994) show that the intensity of identification with an ethnic group is a significant factor in explaining purchasing decision. Most cities in the world are made up of diverse societies, consisting of a wide range of individual from different ethnic and cultural backgrounds. In order for society to function efficiently and smoothly, individuals from Yoruba, Igbo and Hausa that lives in the same society learn to integrate and coexist together, at the cost of this, they accepts and samples different types of foods, adjusting their diets and the goods and services the environment have for them instead of searching for those products that are attached to their ethnic group. In a nutshell, geographical factors such as where people live and the range of shops situated near them influences their consumption behaviour.

The current findings highlight the importance of ethnicity and social class on consumption pattern. Previous studies have demonstrated the importance of these variables on

consumption pattern as also supported by this study. This study has helped to document the influence of ethnic identity and social class among the three major ethnic groups in Nigeria.

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Interdisciplinary, Praxis-focused Auto-ethnography: Using Autobiography and the Values Discussion to Build Capacity in Teachers.

Dr. Jonathan Barnes

Canterbury Christ Church University, Canterbury, UK

Jonathan.barneds@canterbury.ac.uk

ABSTRACT

This paper is about what makes for resilience within a challenging profession. A teacher who has remained idealistic and positive throughout 42 years in education examines the psychological and practical sources of his personal positivity. The complex and bespoke methodology invented to answer the question, 'What sustains a fulfilling life in education' is offered as an approach to ethnography aimed at personal development, applicable to both education researchers and practitioners. The method, *Interdisciplinary, praxis focussed autoethnography*, is not just as a novel means of examining motivations in an individual but is presented as offering a new perspective on staff development in teaching and perhaps other caring professions. The powerful effect of this research on the researcher's practice is discussed in the context of its impact on the development of an approach to capacity building based upon values, creativity and friendship.

Key words: Methodology; autobiography; staff development; values; creativity; friendship; education.

INTRODUCTION

I have been a teacher for 42 years. I have suffered the media criticism periodically aimed at teachers, the sudden changes in policy, the growing political interference, the increasing marketisation and bureaucracy that will be recognised by many. Like most teachers I have also encountered angry parents, difficult children, unsmiling inspectors and the denigration of many of the values I hold dear. Yet I have remained positive about education and teaching itself. I have felt sustained in the face of an unrelenting barrage of challenges and so thankfully have many others. The same story could be told by long serving health workers, those involved in social services, aspects of the justice system, caring or community work. What gives some people the resilience I have claimed? How can we help others get it? My decision to enter into auto-ethnographic study towards the end of a career was generated by such questions.

What sustains me and keeps me idealistic after a lifetime in education? I imagined that asking myself and others this question might provide answers that could help shape training and staff development for teachers in the future. I quickly, (and predictably) found my simple question very difficult to answer in any satisfactory way. The gulf between what others and I *knew* to be true and the words we had to express that knowledge, was too big and complex for mere words. This paper outlines my tentative and evolving attempts to find ways to answer questions about resilience – with *and beyond* the level of words. My methods are presented in the hope that aspects may be relevant to other practitioner/researchers where inclusive values like kindness, love, honesty, generosity, joy, equality, truth, beauty and justice still matter [1].

Inventing a methodology to answer a difficult question

To answer my question adequately I had to accept that my knowledge was multi-layered, provisional, ultimately unknowable and probably more felt than understood. I needed to invent a method to describe the necessarily interdisciplinary nature of my enquiry and its direction towards self-change and practical action in the world. I called this method, *Interdisciplinary praxis-focussed auto-ethnography*. Interdisciplinary because as I looked back on my life I saw that sociology, psychology, philosophy, geography, music, art and education theory all had their impact. So too did experience, my friends and family and the accidents of time and place. The word praxis appears because the research had a political and moral focus in the daily reality of teaching in schools and universities and was aimed at changing my own and others' practice in classroom, staffroom and common room. The method was auto-ethnographic because it was generated from and founded upon systematic and deep examination of my own life. I believe the research method I developed offers new ways of understanding motivation and renewing teachers' energy to move forward. The methods are necessarily messy, they reflect the shifting sands of self-understanding, but I believe they may have resonance for all involved in 'caring' professions: those where the central aim is the social, psychological, intellectual, spiritual and physical well-being of people.

Values matter. My quest began with identification and systematic examination of the values that guide my actions in the world, my beliefs and approaches and their relationship with my sense of well-being, particularly of resilience and 'job-satisfaction'. Early tasks centred upon examining notions of personal meaning and purpose, and required evidence from multiple personal perspectives, many of which would not normally be available to others. As Denzin and Lincoln observe:

We cannot study lived experience directly, because language, speech and systems of discourse mediate and define the very experience we attempt to describe. We study the representations of experience, not experience itself. [2, p.51]

Such thoughts and Clough's [3] exhortation to look for alternative ways of knowing, led me beyond words. I sought truth in an archive of images painted, drawn and etched by myself, and in art works by others special to me. Music is important to me so I chose specific compositions, musical forms and metaphors to represent knowledge apprehended in other ways. The chosen images and musics were necessarily un-interpreted because words would blur their meaning. Worded evidence was confined to the written or spoken parts of my experience found in diaries, a number of personal autobiographies and interviews with others close to me. All were open to a number of different interpretations.

Discussing the interpretative paradigm Roth reminds us that auto-ethnography, reveals aspects of our culture just as much as it attempts to tell about a single life [4]. Autobiography also involves the biographies of others and meanings created and approximately shared between us. Attempting to understand others' interpretations and uses of words or metaphors therefore became fundamental to understanding mutual influences. I wanted to avoid, 'the false dichotomy opposing objectivism and subjectivism,' [4, p.6] and sought to establish what Roth calls an 'inter-subjectivity' between myself and those that influenced me. Thus the prolonged involvement throughout my research of those closest to me was required.

The findings and detailed conclusions of this research are not directly relevant to this discussion of methodology. The ways in which evidence was organised may however be helpful to others considering autoethnographic approaches to influence their and others' practice. In answering my overarching question on resilience I asked four subsidiary questions.

The wide range of evidence used to answer the questions came from the informal archive of collected letters, photos, objects, memories and conversations that clutter many homes and minds. The sources of data are summarised in the table (Figure 1) below:

Overarching research question: What sustains a fulfilling life in education?	
Subsidiary research question	Sources consulted for answers
1. What values, beliefs, educational approaches are important to me in education and why?	Diaries, autobiographies, letters, family conversations, my art works, re-visits to places, pictures and musics important to my story
2. What experiences have contributed to the resilience of my approach to education?	Art works produced by myself, diaries, autobiographies, letters, research notes, conversations with friends, musical structures.
3. How does my account relate to those of particular others?	Conversations with friends, reflection and reading on the art works of others, re-readings of personally influential literature
4. What implications does the exploration of the values and beliefs have for my present action in education?	Feedback/evaluation from 40 staff development courses 2002 - 2011, delivered by myself, diaries, letters, autobiographies, conversations with friends

Figure 1: Organising the data to inform the research questions

Choosing Autobiography

Autobiography involves the written stories from my life. My own story is a resource to which of course I have deep, nuanced and privileged access. Auto-ethnography is the systematic study of aspects of that life story as the basis of research. Critics of auto-ethnography, like Delamont, characterise it as the, '*essentially lazy – literally lazy and intellectually lazy, ...selfish and ultimately fatuous study [of]... uninteresting and inconsequential lives,*' (5, p.2). I argue however, that every life is consequential and interesting. I believe that systematic and self-critical, self-study can achieve great depth, relevance but also has a special usefulness in professions focussed on the lives of ordinary people. The more we understand ourselves the more we are able to develop empathy.

Autobiography as research has been the subject of academic controversy for many years. The term auto-ethnography was coined by Hayano [6] and developed as a research technique in the work of Ellis and Bochner [7], Denzin and Lincoln [8] and Roth [4] in the United States and by researchers like Mitchell, Weber and O'Reilly Scanlon, [9], Atkinson, [10] and Coffey, [11] in the United Kingdom. Its research significance is explored in the work of Bruner [12] Rogoff, [13] Clough, (4,14,15,16), West, [17] and Merrill [18]

I recognise Bruner's assertion that, '*we become the autobiographical narratives by which we tell about our lives,*' [12, p. 694]. This reminds us of the crucial role of reflexivity in interpretative research. A life in caring professions of all kinds generates intense interactions with large numbers and a wide range of clients often in emotional circumstances. These exchanges often include demonstrations of the personal significance of life stories. In arguing for a '*culturally sensitive psychology,*' Bruner sees autobiography and biographical understandings as central. He suggests that our connections with people should seek to understand:

... not only upon what people actually do but what they say they do and what they say caused them to do what they did... what they say others did and why. ... what people say their worlds are like. [19, p.16]

I chose Auto-ethnography because it best allays my personal fears about the distancing tendencies of 'traditional' research. Ellingson and Ellis describe:

...the alienating effects on both researchers and audiences of impersonal, passionless, abstract claims of truth generated by ... research practices... clothed in exclusionary scientific discourse [20, p. 450].

A positivist approach would have been wholly inappropriate my study. I was dependent on interpretations, feelings, experiences and conversations and a desire to emphasise 'soft' values like caring, relationship, positivity and creativity. Research carried out in the sciences or humanities within their usual positivist paradigm rarely gives a justification for its stance. Neither did I feel the need to justify my interpretative approach further than articulating the claim that qualitative research was the only way I could answer my research questions. One cannot pretend objectivity in issues concerning oneself, one's friends and one's values.

The examination of values held my wide-ranging research together. Values are deeply held beliefs that act as guides, and provide life with direction and destination [21]. Initial autobiographical reflections isolated my use of hope as a key element of resilience. Lengthy self-analysis during friendly conversation helped me understand the ways that I used my tendency to hope in the face of pressures towards despair. Autobiography and auto-ethnography helped uncover the early roots (usually pre-adolescent) of other assaulted and demeaned values like love, honesty, fairness, kindness and faith. But autobiographical thinking and writing also revealed complex layers of self [22]. It revealed its vulnerability to disintegration and reintegration, its inconsistencies, but at the same time constantly reaffirmed the special role of values.

My research made me aware of '*many versions of self*,' (23, p.115). Our current understanding of self tends to direct responses across all aspects of life. Conclusions in psychiatric, psychological, sociological studies hold to the belief that what others report about themselves is a suitable starting point for research. Health professionals frequently rely upon personally reported feelings to guide treatment decisions. Self-report, however, is unaccountably considered suspect by many education researchers. '*We have been taught to treat such said accounts as untrustworthy, even...untrue*', Bruner remarks [12, p.16]. Experience has persuaded me that the reported world of child and adult merits serious consideration because like Rembrandt's self-portraits they are real at the time. Although denial, repression, avoidance, unconscious motivation and deliberate lies may also be part of what is reported we can as researchers seek out and test alternative perspectives to support judgements about verity.

Autobiographical conversations are probably crucial in the creation of identity. They may have important social functions too. Shared opportunities to express autobiographical fragments, key stories or longer narratives, help us establish sustainable and sustaining communities. A mature understanding of self is key to what Goleman [24] calls the 'emotionally intelligent' individual, valued in many post-industrial societies. Yet in a society that apparently prizes individuality, I note little time in education or education research is devoted to understanding how identity is constructed and sustained. Equally, whilst children appear highly interested in their developing selfhood (25, 26, 27), adult awareness of this interest has had little impact on the curriculum children receive.

My experience is that self-understanding helps us develop a fuller understanding of others. For a teacher, self-knowledge is particularly important in heightening sensitivity to the emerging selves of children. Bruner reminds us of the complexity of understanding selfhood however:

Selves are not isolated nuclei of consciousness locked in the head, but are “distributed” interpersonally. Nor do selves arise rootless in response only to the present; they take meaning as well from the historical circumstances that gave shape to the culture of which they are an expression. (19, p. 138)

Autobiography is often used to validate our choices. As Bruner suggests, ‘The self as narrator not only recounts but justifies’ (*ibid* p. 121). One of the dangers of auto-ethnography therefore is the tendency to weave events into a romanticised, self-congratulatory story. If the written story of my life was to be of use in discovering personal, emotional and spiritual meaning, then I had to allow meanings to emerge, rather than cast them into a mould. I also needed to be aware of the impact of the cultures that continually limited my choices. Analysis of individual experiences showed for example that minute internal or external influences sent life in unpredictable directions and pretending there was one, preordained or planned route in life was disingenuous. The examination of other lives showed me that my life shared the fragility and uncertainties of every life story.

Why I Chose Close Friends

Friends are important to us. They are people in a long term and positive relationship with me; who know me well in private and professional life. I wanted to study the life stories of close friends who had remained in education, in order to compare accounts of my resilience with their explanations. Friends became research subjects because early in the analysis of my own story it became clear that my resilience depended heavily on their support. The nine friends represented in my study had been in this relationship with me for more than 20 years. Their relationships cut across my professional, personal, spiritual, playful, social, intellectual and private lives. But even they occupied other cultures, saw and experienced things differently from me. Aspects of their lives and views therefore provided contradiction, additional data and depth to answer my study.

Each friend was, in their own estimation and the opinion of their colleagues, successful as a teacher and expressed high degrees of life-satisfaction. ‘Successful’ in this context means that they were satisfied with the contributions they had made to the learning of others, still energised and idealistic about their work and conscious of a positive impact on a wider audience.

Using close friends as research subjects was justified for a number of other reasons:

1. Only close friends could be asked to sustain the commitments of time and interest and tolerate the persistent, personal questions I planned to ask
2. They offered relative ease of access over what was to be a long research period (10 years)
3. The empathy and frankness they had already shown, gave me confidence that they would answer my questions ‘honestly’
4. Being dominant characters themselves my friends are resistant to my attempts to dominate, and used to being sceptical and critical in their responses to me

5. My friends are well aware of the details of my private life and therefore it is more difficult to romanticise or 'get away with' obfuscation, deception and hypocrisy
6. I like my friends and I believe they like me, therefore I felt that the interactive aspects of my research would be mutually pleasurable and perhaps helpful
7. In daily encounters friends often challenge my unsafe conclusions. Whilst shared meanings may arise from similar beliefs or experiences we come from different cultural backgrounds; meanings need not be consistent, conclusions and emphases are likely to be different
8. My friends specifically resist the generalisations I make about them and their values. They are willing to return to disagreements because of the long term and mutually supportive nature of our relationships.

Each reason for the choice of friends as research participants raised questions. Would friends be as tolerant as I expected? Could I do justice to them as individuals in a context focussed so much on me? Would they stay around to be interviewed many times over? Would they indeed be honest or could our friendship be based upon mutual glossing over of disagreements? Would the criticality I expected manifest itself? The means of answering these questions are outlined later in this paper.

Asking others about their values requires trust and flexibility. Researching the 'psychology of discovery and invention', Csikszentmihalyi interviewed 92 Nobel Prize winners and other creative leaders about their lives and values [28]. He used a framework of open questions followed by opportunities for subjects to write answers at length - 'freely' communicating what mattered most to them on the subject of creativity. He then combed the responses for themes, continua and commonalities that often expressed core values. I sought similar opportunities for friends to talk about their values over a much longer period. I planned to examine whether these extended conversations might provide evidence to support the formulation of theory and suggest proposals designed positively to impact upon the lives and work of others.

Drawing information from the reports of others involves risks. We know that unconscious factors affect recall, selection, recording and theorising from conversations. Denzin [29] reminds us that we are likely to respond disproportionately to resonances from our own past, or arrive at unsound conclusions when reported relationships or feelings seem similar to our own. However, West's assertion that, *all* minds are partly composed of the continuing influence of the lives around us [17] (and I would add, those we have never met) meant that I interrogated their reports by applying alternative explanations (see explanation of the use of Sonata-form below).

The Ethics of Using Self and Friends as Research Subjects

Ethics are an issue even when the subject of study is oneself. As my study deepened it became clear that I had to decide how far aspects of personal privacy should be made public. There are places therefore, that I avoided because they involved others and aspects of self I wished to remain private. I chose to minimise details of the huge impact of my wife and children in order to preserve their privacy. On the other hand I decided to accept the risk that public honesty about myself may destabilise a positive self-image since integrity and personal honesty were important to my thesis.

Submitting my research plans for ethical review resulted in questions as to the ways in which I would counter any tendencies to dominate conversations and interpretations. These concerns I answered to the satisfaction of the ethics committee and summarise below.

I began researching the lives of my friends with an email. I asked each friend if they could join me in the quest to find out what sustained us in education. After receiving assent, I telephoned each with further enquiries about anonymity. Every friend and family member represented in this research wanted me to refer to them by name because they wanted to be identified with the personal journey involved in the research; they did not require confidentiality. Examining their beliefs, values, passions and attitudes, however, presented a unique set of ethical problems.

My questions were intrusive. Whilst my data was to arise from biographical conversations rather than full biographies, I informed participant friends that my research needed to include systematic, though incomplete, explorations of aspects of their life histories to establish the sources of beliefs, values and attitudes. Questions were therefore likely require time, calm and confidence in me. Each conversation began by reminding friends that control had to be truly in their hands in order for the outcomes to be worthy of analysis. I believe accepting this assurance is easier between friends than strangers. If recalling the past conjured up distressing or uncomfortable feelings (as happened a number of times) friends needed reassurance that our friendship, not the research, would prevail and I would stop the questions and simply be a friend. As an interrogator of personal beliefs maintaining a relaxed manner and avoiding the distant mantle of 'researcher' was important. I was careful to avoid the misunderstandings, lack of rapport and discomfort warned against by many ethnographers (for example 30, 31). Environmental conditions for conversations were chosen to be secure, relaxing and free from distraction.

Conversations took place in conditions of high mutual confidence. We usually met in the homes or cars of my friends or my own home. I explained the nature of my research and my focus on beliefs, values and approaches to education. Conversations inevitably involved our shared interests in creativity and its possible relationship with values. My friends were not surprised at these foci, but each individually expressed enthusiasm to participate in deeper dialogue. My planned questions were brief and general. I used a simple framework to ensure comparability between accounts and preserve a conversational feel to interactions. Since research subjects were close friends, frank conversations were already common and friendship granted more freedom to delve into past motives and to challenge them. It is possible to abuse friendship however, and my research participants were reminded that they could stop, withdraw or change the subject at any time. I recognised that I continued to be mediator and narrator of my friends' stories [23], but through the verbatim use of their words, and opportunities to correct written transcripts I attempted to honour their voice. Questions were not asked in any particular order and not always in the same form, but all conversations addressed the following:

- their values
- definition(s) of values
- the sources of values
- how values were sustained, expressed, compromised, lost and perhaps re-found
- lifelong interests
- views on teaching and education in general
- views on creativity.

Only personal, persistent and long-term conversations could begin to uncover satisfactory understandings of these complex and dynamic issues. I asked each friend again whether they wanted me to anonymise their names and each answered, ‘no’. We agreed however, that though their names would be used throughout, people they referred to would be anonymised, by change of name and fictionalisation of their relationship.. Each friend received the transcripts soon after our conversations knowing they could amend and return or destroy them. My own search for honesty with myself has ethical ramifications for those closest to me. Reading of my ever-deepening self-questioning may have proved uncomfortable for my family and so I gave my wife and children opportunities to read and question every aspect of my research before finalising it.

METHODS OF RESEARCH

The detail of my approach to interdisciplinary praxis-focussed auto-ethnography, now needs explaining. Below I outline the wide range of methods and approaches I used to justify the term, but this mix of data sources and means of analysis is specific only to the understanding my life story (see Figure 2). Each auto-ethnography requires a bespoke collection of worded and unworded sources; each form of story suggests its own form of analysis.

Data	Analysis	Action
6 Autobiographies written at different times in different moods.	<ul style="list-style-type: none"> • <i>Grounded theory</i> • <i>Sonata form</i> • <i>Conversations with family</i> • <i>Reading in the light of the biographies of friends</i> 	A. Identification of: <ul style="list-style-type: none"> • friendship, • values congruence • opportunities to find, use and develop personal creative strengths. As significant factors in building resilience amongst teachers. B. sharing these findings and activities connected to them with colleagues through staff development courses in 40 educational institutions C. Collecting and responses to staff development courses to feed back into research
Diaries, sketchbooks and letters 1967 - 2005	<ul style="list-style-type: none"> • <i>Grounded theory</i> • <i>Sonata form</i> 	
Paintings, drawing and etchings by me 1965 - 2012	<ul style="list-style-type: none"> • <i>By the reader</i> 	
Specific pieces of music and special places that marked significant changes in my life	<ul style="list-style-type: none"> • <i>By the reader</i> 	
The work of famous artists special to me	<ul style="list-style-type: none"> • <i>By the reader</i> • <i>By comparing ‘expert’ opinions</i> 	
Books and articles that have been personally influential	<ul style="list-style-type: none"> • <i>Literature review</i> 	
Semi structured biographical conversations with close friends	<ul style="list-style-type: none"> • <i>Reading and re reading many times</i> • <i>Grounded theory</i> • <i>Further conversations/feedback</i> • <i>Sonata form</i> 	
Round table discussion with groups of participating friends	<ul style="list-style-type: none"> • <i>Grounded theory</i> 	
Questionnaires sent to 9 participating friends	<ul style="list-style-type: none"> • <i>Comparison with semi-structured conversation analysis</i> 	

Figure 2: The research approaches used in Inter-disciplinary, praxis focussed auto-ethnography and their practical outcome in education.

Using Autobiography

Autobiographies change. Within a few weeks of an accepted PhD proposal in 2002 I completed a detailed autobiography. Without reference to academic literature, indeed referring to no other autobiography, I naively assumed that these 35,000 words constituted a more or less accurate summary of my life so far. It seemed an *honest* examination of the sources of my current values in education and life. Looking back on this first attempt I saw it was a misleading and rather 'posed' examination - not intentionally deceitful, but ignorant of the complexity and differing layers of influence which colour memory on a day to day basis. Newly-concscious of the ways in which oft-repeated personal stories are embellished and subtly altered to conform to the psychological, social and pragmatic needs of the present, I was shocked at re-reading it some six months later. I rewrote my story with what I saw as a new honesty.

Awareness of the shifting nature of memory materialised as I added significant, darker and not-to-be-published material to my life story at the suggestion of my supervisor in 2004. My more sombre mood awoke negative memories missed at almost every milestone of my first two autobiographies. I first interpreted these forgotten memories as 'glossed over' aspects of my past, obscured by a tendency to be over-generous and optimistic.

Adding new detail on becoming a grandfather in 2005, and in both 2006 and 2007, I repeated the process and again found that different aspects of my past came into focus. Rather than amend the pre-existing autobiographies I decided to save each 'new' account in different colour font to capture changes in autobiographical understanding. Six autobiographies, significantly different, but written within four years of each other, reminded me that memory was not static or absolute but fluid, multi-layered and reactive like the shifting sands of consciousness itself.

I read and re-read the autobiographies and my diaries many times. Using a Grounded Theory [39] approach, I noted themes like values and beliefs dominated even the diaries written when I was sixteen. I highlighted what appeared to be values and then isolated references to beliefs, attitudes, and lifelong interests. When a category I called 'Key Stories' emerged from the data, I found that properties like people, places and objects occurred in each of them. Remembered autobiographical detail was cross-referenced with people who shared events with me, matched against and contrasted with the evidence of diaries, letters and art works contemporary with events. Each autobiography was also re-read in the light of the biographical conversations with friends.

Using Diaries, Letters, Sketch Books And Research Notes

Diaries: Three diaries survive from my teenage years. From these it appeared that some values have remained relatively consistent through life. Those teen values conformed to memories of the pre-teenage me. With the help of my parents and sister I traced examples of values-related actions to my single-figure years. Additional to the colour-font autobiographies of 2002/3, 2004, 2005, 2006 and 2007, I used the diaries of 1967-69, 1974 -1975 and 1983-1984. Those from the 1960s are handwritten, un-illustrated, highly personal, emotionally 'charged' reflections on events and people. The diaries of the 1970s are paralleled by contemporaneous letters to my wife and parents. The last full diary documents travels throughout south-east Asia and was partly illustrated. Much shorter diary entries date from travels: Canada (1995 and 2000), Tanzania, (1999 and 2002) Greece and India (1999 - 2009). In these later diaries illustrations gradually replace words. Each source provided corroboration of the consistency or fragility of my values. I read these narratives mostly for the first time since they were

written and selected and transcribed entries related to the values identified from autobiographical analysis.

Using Biographical Conversations

We learn about others through sharing biographies. The biographical/ethnographic methods most appropriate for analysing conversations were formally developed through the work of the Chicago School led by social researchers like Mead [32] and Park [33] who were described as key influences on the thinking of Bruner [34, 35]. Mead argued that individual minds, '*can only exist in relation to other minds with shared meanings,*' (32, p. 5), and that there was, '*no mind or thought without language,*' (ibid. p. 191). Park introduced the term 'ecology' into social-psychology linking each life with the social, natural, made and imagined world that surrounded it. Mead's biographical methods were incorporated by psychoanalysts like Rogers [36] and Buhler [37, 38]. The complex qualitative approach called 'grounded research' established by Glaser and Strauss [39] arose from this background and became an essential tool in analysing the biographies of my friends and my own autobiographies.

Interactions with friends is more informal than a semi-structured interview, we had conversations. These were special conversations however, in which I tried to say as little as possible, so I coined the term, *semi-structured conversations* to express their directional nature and referred to Denzin [29] for a suitable framework to guide them. Our conversations took place on car journeys, in the sitting room of my house in front of the fire, in friend's chosen rooms or in one case the deserted lounge of a quiet hotel.

I recorded 18 semi-structured conversations. Each conversation took about ninety minutes and appeared to flow easily. They were characterised by friendly assumptions, implicit knowledge, humorous and personal asides and reference to family stories 'off stage.' These enriched the quality and depth of the genre but at times need explanation. There were times when the stories became highly moving, even distressing, such as when one friend spoke of his depression. At these times it was necessary to depart from the context and sympathise, gently attempting to cradle the friend down from the pain of memory without denying or trivialising it. At other times the answers to questions seemed vague or difficult to understand, these required supplementary or exploratory questions or were returned to in subsequent conversations.

There were a few commonalities between my friends' life stories. Unexpectedly all expressed confidence that many of their core values had developed in childhood – largely between 7 and 15 years. One assigned their value for honesty to a single event remembered in fine detail from their third year of life.

Through the analysis of their stories and conversations my friends became like strangers. Previous assumptions were challenged, meanings of commonly shared words were disputed, even shared events provoked different memories. When I noticed for example, that one had not offered a very profound reason for deciding to become a teacher I wrote, 'pragmatic?' in the margin. I returned and re-read transcripts of the other conversations and found that indeed another 'born teacher' and another and another had also expressed less than idealistic reasons for joining the profession. They too offered prosaic motives - far from the idealistic aims I had assigned them. I *expected* similar non-idealistic motivations by the time my last interviewee related her story, and was not surprised when this excellent teacher related she had become one because she couldn't be an actress. In this light I re-read my autobiographical justifications for entering the profession and remembered motivations far less uplifting than those I usually gave.

There were unanticipated reawakenings of memories too. On reading one friend's exposition on compassion I suddenly remembered an embarrassed rush to the privacy of the toilet at age 15 to hide my tears after being profoundly moved by Gregory Peck's demonstration of compassion in Robert Mulligan's 1962 film of Harper Lee's *'To Kill a Mockingbird.'* Perhaps I felt being public about such sympathy was somehow unacceptable. Re-reading and re-thinking my own autobiography in the light of other's stories was highly enlightening and I believe an original contribution to auto-ethnographic research in education.

Using Grounded Research

Grounded research describes a method for, '*... developing a perspective on behaviour – a stance to be taken towards data...*', [39, p.3], that arises from the data itself. The method used to interrogate both my own autobiography and the conversations with friends provided themes, categories and properties that were, '*intimately linked to the data*' (39, p.4); influenced neither by my expectations nor other research methodologies. The outcomes of my research [40] conform to grounded research theory in that they:

- closely fit the context in which they will be used;
- are understandable by anyone involved in the area of education;
- are general enough '*to be applicable to a multitude of diverse daily situations*';
- allow any user significant control over the process so that they may fit, '*situations as they change through time*,' [39, p. 237].

Themes: On first reading of approved transcriptions I analysed them to identify recurring aspects. Glaser and Strauss suggested identifying themes, categories and properties. Common themes – distinguished by being 'big issues' in the minds of friends and myself- were highlighted in different colours. The themes that emerged were:

- Family (raised by all)
- Friendship (raised by all)
- Love (raised by all)
- The arts (raised by all)
- Vocation (raised by 6 friends)
- Religion (raised by 5 friends)
- Politics (raised by 4 friends)
- Suffering (raised by 4 friends).

Other values-related issues like sex and war were not represented - my questions did not take us there.

Categories and their properties: The themes above were raised in different contexts and I identified these contexts as 'categories' in Glaser and Strauss's terms. I noted the following 'categories' with some common properties in the margins of the transcripts the categories and properties were:

1. **Values** - which included properties like principles and the lifelong interests and educational approaches that expressed them
2. **Beliefs** – including properties like attitudes and faith
3. **Key stories** – including properties like important times of life, special places and events of childhood
4. **Key people** – including properties like influential groups mentors, family, friends , inspiring individuals

5. Key concepts – like happiness, creativity, affirmation, well-being/health

Other Ethnographic Methods

A range of other approaches influenced both style and substance of enquiry (see 9 and 7). I refer to methods used by Csikszentmihalyi [28], Davies, [42], Fischman, et al, [43], Merrill and West, [18], Stige et al [44] and Catling [45]. West's psychoanalytically-inspired work led me to understand that even the most exhaustive examination of biographies and autobiography would/could not provide definitive answers to my questions. The very complexity of every human life meant that suggestions towards temporarily meaningful answers were the most I could achieve. I did not find this insight dispiriting. My research led me to suspect that personal and collegiate growth, perhaps even aspects of fulfilment, can arise from *attempts* to find answers rather than the answers themselves.

Multiple re-examination of transcripts: The need for repeated and critical re-reading of the manuscripts revealed many new and unpredicted characteristics. Unanticipated properties from one conversation led me to re-examine (again), previous and different conversations for missed signs of additional themes, like suffering and conflict. On rereading three or four times, deeper levels of complexity revealed themselves. Returning to earlier transcripts I noted in myself a subtly changed viewpoint and each time found myself looking for slightly different things.

It was only through repeated analysis for example that I found distinct links between personally held values and my life-long interests and educational approaches. Similar links were evident in the biographical conversations with others. Re-readings of autobiographical writings in the frame of mind engendered by particular friend's stories resulted in new properties under the headings of beliefs, values, stories, and people. The *un-principled*, *pragmatic*, or *casual* routes into education emerged and so too did the way that *values-conflict* often resulted in changes of job. One person's relating of a time she felt '*out of control*' seemed similar to an other's description of a time of '*lack of engagement*,' and in conversation between the two of them we established that both described a disconnect between their most cherished values and those dominant in the institution where they worked. Other emerging properties of concerning values included:

- The loss of values,
- The rediscovery of values,
- Multi-functional key stories capturing the source or illustration of core values,
- Psychological survival tools,
- Mutual support between friends and sometimes colleagues

Using key stories: Ethnography values stories. Accounts of significant life incidents, containing very specific detail, communicate meaningful aspects of our worldview. Social scientists frequently gather such personal stories to, '*epitomise some of life's main features*,' finding them *both meaningful and acceptable*', [46, p. 46]. Ellis and Bochner, use the term 'evocative narratives' to describe these personal tales most important to us, Robinson and Aronica [47] (2009) refer to them as 'epiphany stories' I have called them 'key stories'. They were characterised in the accounts of my friends by being, first person, short, descriptive of single events, fluent, well-rehearsed and easily comprehensible. Life stories can consist of a string of such anecdotes. Bruner suggests these stories are fundamental to an individual's identity and that they emerge from family ritual, unexpected event, treasured moments, influential relationships, and powerful experiences [19].

Group discussions: None of the properties above were initially named as significant in my conversations, so I needed to take care not to take the evidence too far. I therefore twice

brought my research subject friends together for an evening meal during which my tentative headings of categories and properties were unveiled and opened up for discussion around a table. The following week we joined in a second discussion in the workplace of one friend. The lively conversations were recorded and transcribed with additional comments on remembered body language and tone of voice. Group discussions were intended to ascertain if individuals could recognise the properties that had arisen from the analysis of their individual conversations, felt that new ones needed to be added or definitions clarified. I also wanted them to decide whether as a focus group, comprising half the interviewees, we could agree on the significance of values themselves in impacting on our education and life decisions.

The values and attitudes of friends: Finding a research methodology suitable to analyse reported aspects of the lives of friends presented special opportunities. As Moore reminds us, general life story research is likely to be, '*characterised by struggle, uncertainty and multiple confusions,*' (in 23, p.63). Researching aspects of the lives of friends may however, reduce the variety of such uncertainties and confusions and allow me in Moore's words to:

'...hold on to personally valued principles, to take the most open and honest and collaborative approach possible to finding out about [...] experience, and to seek to effect positive social change as part of the process. (ibid. p.63)

It seemed likely that the biographies of friends were as subject to constant re-evaluation and re-remembering as my own. These biographies were therefore interrogated for inconsistency as well as common themes. Since relationships with friends are characterised by familiarity, mutual and general affection, support, trust and frequent co-operation, I was able to return many times to untangle confusions.

Using Questionnaires

Conversations rarely covered all the ground intended. Indeed no conversations addressed exactly the same set of themes because, in the manner of free flowing dialogue, they followed wandering courses, despite my planned questions. This was a limitation of my interviewing technique perhaps inevitable when talking with friends. I forgot on occasions, to ask for specific stories or examples of general points made. I sometimes omitted to probe influential details of schooling or family life. Realising this I decided to issue a short questionnaire, based upon one devised by Catling, [45]. Responses would provide a degree of common ground and a comparable base for later interpretations.

The recipients were given a month to respond and answers were to be interrogated for evidence of specific values, key stories, people, places and times. I hoped that, consistent with my own experience, different things might be highlighted in this contrasting format and wondered if being asked similar questions on a different day might provoke different answers.

I followed this by issuing a second questionnaire, specifically on values three years later. It consisted of a table of values compiled by Gardner and student associates and part of the 'Good Work' project in 2004 [43]. Friends were asked to choose the ten most significant values to them from a list and place them in order. They were also given opportunity to state values missing from those offered.

Using Musical and Geographical Metaphors

Teaching music and music has been of lifetime importance to me. Music is a love common to all the friends represented in this research. Music can itself be seen as a metaphor, it can

wordlessly stand for a feeling, often even creating or recreating approximations joy or sadness, awe, loneliness or fear. Some pieces of music, like Messiaen's *Dieu parmi nous*, and Bach's *Concerto for two violins*, have had a lifelong influence upon me. In my thesis I occasionally called upon musical ideas and elements to express thoughts and feelings too deep for words.

My diaries in particular dwell in detail upon certain landscapes, especially in Kenya India and Indonesia where humans have worked in harmony with nature for millennia. I see these landscapes as metaphors of human life. My relationship with other places, churches, castles, museums, art galleries, Victorian streets and medieval town centres, has also been significant. Such places are named as metaphors of culture, belonging, stability, continuity or security.

Using Art Works By Myself

Not everything felt and thought can put into words. Human experience across all cultures is captured through image, movement and abstract sound, perhaps even in smell, taste and touch [48]. My belief in the parity of the worded and the wordless ways of expressing experience was corroborated by many conversations held during my research. Honouring the wordless aspects of existence is an enduring principle in my teaching and a core theme of my thesis. I therefore chose to represent my story partly through my paintings, drawings and etchings, placed chronologically throughout the thesis (see Figures 3 – 7). This archive of over forty years' work addresses some of the 'silences' in my diaries.

The art works cover the period from 1967 to 2011. They represent geographical aspects of a life story but also many lifelong themes and values. My pictures are open to a variety of literal and metaphorical interpretations, just as my words are. At times the experiences, feelings and realities expressed in painting and drawing may convey my story more precisely than words.

I deliberately avoided explanation or interpretation of my artworks. If art is a means of communication then it should speak for itself. The titles on each image simply recorded the date, place and medium. In bringing these images together however I noted themes that overlapped with the written themes and stories of my autobiography. Specifically:

- Places
- Buildings
- People
- Sounds
- Colours
- The exotic
- The Spiritual



Figure 3: Drawings made in Malaysia, 1983.



Figure 4; Diary page from Morocco, 1996



Figure 5: Diary page from Greece, 1997



Figure 6: Diary page from India; 2003

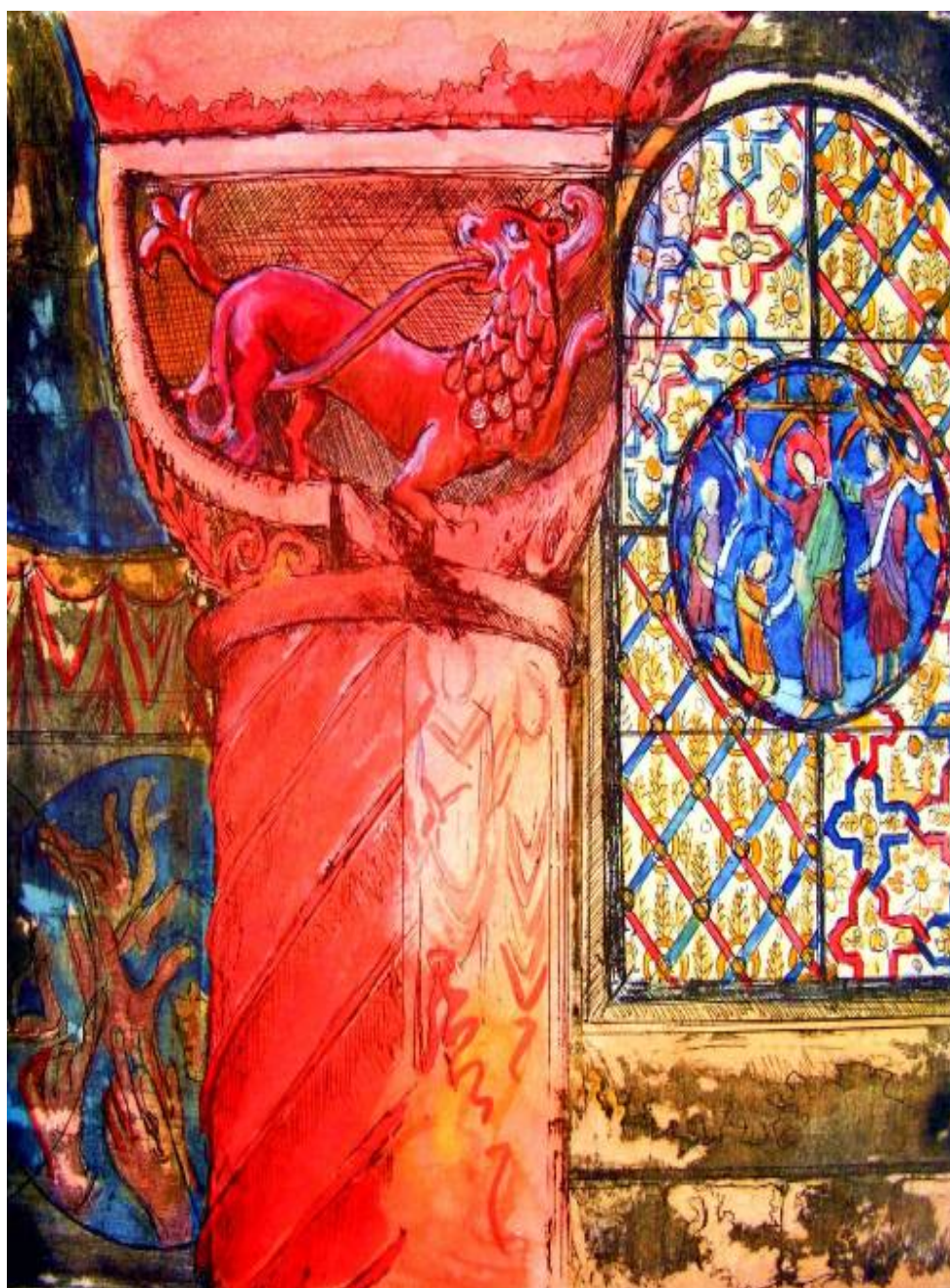


Figure 7: Etching Canterbury Cathedral interior, 2007

Analysing Personally Influential Writings

Until themes and categories arose from interviews and autobiographies I avoided consulting academic literature on auto/biographical research, values and memory. My literature review therefore took on the autobiographical nature of the whole thesis. It dwelt on books that had most powerfully influenced my values and attitudes. Books from my childhood, my teens and my early adulthood were re-located and re-read. Those from my later life as an teacher educator were re-assessed seeking sources of my pressing and current concerns in education. These books required systematic and critical analysis in my search for an honest appraisal of my values and actions. Reappriasing the work of others became part of my quest for intellectual and emotional honesty and was reviewed under headings arranged in overlapping pairs that emerged from comparison with my autobiographies:

- Hope and faith
- Family and love

- Friendship and kindness
- Equality and inclusion
- Creativity and wordlessness
- Culture and Communication
- Happiness/Joy

Classifying academic literature under headings arising from my research confirmed its grounded nature and added to the journey of discovery generated by many authors. Confining a literature review to personally influential books was also a pragmatic decision. Each theme is already subject to extensive academic endeavour well beyond the scope of this thesis, but I wished to illustrate the eclectic and inter-disciplinary nature of my influences. Therefore I restricted the review to a critical outline of the pedagogical, psychological, sociological, philosophical and neuroscientific arguments that have influenced my beliefs. The wisdom of others, of friends and personal reflections ensured the creative element of chance that matched my observations on the unpredictable nature of character and values-formation.

Other Research Devices Used

In seeking validity I also adopted a number of unusual research devices. Three are in keeping with my interest in wordless ways of knowing:

- The concept of the 'red thread' of values
- The use of sonata-form analysis
- The use of pictorial metaphors

The red thread: In a number of cultures the image of a single, apparently stray thread that appears and disappears throughout a woven fabric has been used as a metaphor. Richhart uses this weaving metaphor to represent the ways in which core values constantly and sometimes unpredictably surface throughout the life of an individual [49]. In my research I referred to this metaphor a number of times to highlight the resilience of particular values in the lives of friends.

Sonata-form analysis: In building my thesis on verbal self-portraits I was In Jessica Davis' terms, '*...constructing and communicating [my] understanding [of myself and others] for the reconstruction and reinterpretation of the reader.*' (42, p. 261). To give the research structure and rigour and make it, '*...more than a compilation of random reflections, personal views and interactions with sites.*' (*Ibid.*, p. 263), I adopted an analytical structure that follows what musicians know as Sonata-form:

Sonata-form in music represents a major achievement of western civilisation. Using the invention of tonality, eight note scales in different keys and major and minor modes, a composer may construct, sustain and develop a complex argument using sound only. In a classic sonata a musical statement – (a tune, musical pattern or series of harmonies) in one key, is elaborated and extended – this is called the *First subject*. This leads on to the introduction of a *Second or Counter subject* that deliberately challenges the first subject and sets up a musical argument between them. This musical confrontation is called the *Development* section and may involve frequent key (mood) changes, apparent departure from the central ideas, growing tension, discord, even confusion, but eventually the composer, unites the two themes in a *Recapitulation* and resolves the sonic argument with a concluding *Coda*. Composers like Mozart, Haydn and Beethoven achieve this musical battle skilfully, combining surprise, profundity, ingenuity with balance. They translate a worded concept like a disagreement, into pure sound, accessible and comprehensible across time and culture. The resolutions such composers invent can leave audiences and individuals inspired and illuminated - yet not a word has been spoken.

I applied this musical structure to my analysis substituting worded claims, counterclaims, arguments, collisions and resolutions for musical ones. The first subject conformed to the given interpretation of the sources of a particular value. The counter subject was an invented alternative explanation. As in a musical sonata the two themes were designed to collide. The ensuing argument was long and involved as in the development section of a musical sonata, but these worded disagreements were not always resolved. I had to accept this risk as part of the rigour of honest research. The imperative of a countersubject forced me to seek other possibilities and problematise remembered experience or the reported experience of others. The search for resolution or a transformed recapitulation sometimes challenged existing beliefs to the point where former beliefs had to be abandoned.

Using sonata-form for analysis has advantages and disadvantages. The choice arose from my desire to emphasise a wordless structure to frame worded arguments. Sonata-form offered a repeatable formula with which to state, cross-examine and summarise important themes and arrive at a balance. The multiple justifications of narrative, however, cannot always be squeezed into a contrived pattern and often I had to depart from full expression of the form. But the framework of statement, counter statement, argument, synthesis and summary provided a helpful research tool.

Pictorial metaphors Reproductions of paintings made by established artists were used as visual metaphors. These artworks, distinct in accomplishment and purpose from the paintings, drawings and etchings of my own, provided a silent counterpoint to my writing. The paintings became metaphors in that they succinctly made key statements about analysis. Rembrandt's self portraits, like my diaries represented truth at the time of their construction, never intended as a linked narrative of a life. Kneller's remarkably similar portraits of friends in the Kit Kat club, (1720) (see figures 8 – 13) demonstrated the dangers in attempting honestly to represent friends – they easily become variations on oneself.

Figures 8 – 13 Portraits of members of the Kit Kat Club by Godfrey Kneller.



Fig. 8, Samuel Garth

© The National Portrait Gallery, London

Fig. 9, Joseph Addison

© The National Portrait Gallery, London.

Fig.10, Joseph Temple

© The National Portrait Gallery, London.



Fig 11, John Vanbrugh © The National Portrait Gallery, London. Fig. 12, William Congreve © The National Portrait Gallery, London. Fig. 13, Charles Fitzroy © The National Portrait Gallery, London.

A photo-montage of Hockney's mother expressed the inevitably fragmentary nature of the biography of even the closest to us. Two images (before and after X-ray imaging) of the same painting by Rembrandt show how research can reveal deeper more interesting truths than an anodyne surface might suggest. An illustration of a medieval religious triptych was used to represent the importance of coherent and openly expressed values in building virtuous communities.

Arriving at an Approach to Staff Development

Analysis of ten life stories and the values contained within them resulted in three commonalities. We each felt at our happiest when our personal values matched those of the institution within which we worked. We each depended upon the support and nurture of friends and family and we all continually sought opportunities to develop the areas where we felt most able to be creative. These were the common sources of the resilience that carried us through a life in education. Critical analysis of autobiography and biographical conversations generated original theory applicable to personal and professional development in schools. My theory about what sustains a life in education is expressed in 3 hypotheses:

1. If staff development consisted of active opportunities to express, develop and share values, schools would quickly become more positive places for children and teachers. Values literacy would result in a shared *direction* for resilient behaviour.
2. If staff development provided plentiful opportunities for teachers to find and develop their own areas of creativity this would enhance their personal sense of well-being. Awareness of their unique creative strengths would provide teachers with the personal *motivation* for resilience.
3. The enhanced well-being resulting from sharing values and discovering creativity can promote deepened relationships amongst friends and colleagues. Positive relationships provide vital *support* to sustain us through times of change, challenge and criticism.

My emerging findings were held alongside the values underpinning current education policy and practice and found to be incongruent. I was motivated to address the dissonance by applying my findings to staff development and made this action part of my research. Values are central to all progress. Analysis and experience led me repeatedly to the conclusion that the *values discussion* itself was a worthwhile activity. Friends commented that the semi-structured conversations centring on values left them feeling positive, honoured and empowered. These

observations generated my first hypothesis. My second proposition arose from evaluations and experience of 40 staff development courses conducted by myself between 2002 and 2012 and designed to support colleagues discover or develop their creative strengths. Identified areas of creativity were distinctly not confined to the arts, but included relationships, problem-solving, building, organising, rethinking and possibility-thinking (Craft, 2005). My third proposal results from combining my understanding of the literature on well-being and observing the social and personal impact on staff working with each other on creative projects – they often became more friends than colleagues.

Humans have the capacity to develop at every stage of life. My experience in taking my research findings to schools, colleges and universities suggest that the values discussion, finding and exercising personal creativity and deepening friendships changed the nature of the settings in which teachers worked. Colleagues in forty institutions consistently spoke of 'renewed energy', remembering 'what they entered teaching for', *new ideas*, *new collaborations*, *new friends*, a sense of *solidarity*, relief at the reaffirmation of *core values*, *surprise* at hearing words like *love*, *truth*, *beauty* and *joy* and of being *moved* by the opportunity to 'talk about *what really, really matters*.' In times of continual and values-challenging change, the caring professions need to embrace and re-establish the language of caring values. It is only through such personal and emotional responses – often wordless; often felt - that sustainable, morally defensible development can be built.

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How to place European Research Universities in the global rankings? Policies and strategies of University International Excellence in France and Spain

Fernando Casani

Department of Management,
Autonomous University of Madrid, 28049. Spain

Carmen Perez-Esparrells

Department of Economics and Public Finance
Autonomous University of Madrid, 28049. Spain

Jean-Claude Petit

Department of Sociology
Université Paris-Dauphine, 75000 Paris. France

Eva M. de la Torre

Department of Economics and Public Finance
Autonomous University of Madrid, 28049. Spain
eva.torre@uam.es

ABSTRACT

Although global rankings do not classify national university systems, the majority of countries are reformulating their HE policies to improve the ranking position of their best universities. Accordingly, this paper studies the case of France and Spain through the analysis of their respective national policies for the promotion of university international excellence (state-level response to global rankings). In particular, we discuss two initiatives of university collaboration (institutional-level response to global rankings) aimed to create synergies and increase the international visibility of the participant institutions: the new branded university Paris Sciences et Lettres (PSL) and the Campus of International Excellence of the Universidad Autónoma de Madrid and the Spanish Research Council (CEI UAM+CSIC). In both case studies the participant institutions keep their autonomy and legal personality, a difficult alliance formula to administrate. Nevertheless, they are good practices that reflect a wide state-run strategy for the modernization of both national university systems.

Keywords: Higher Education Policy, Global Rankings, University Governance, Strategic Planning, University Alliances, World Class Universities.

INTRODUCTION

In the beginning of the 21st century the increasing internationalisation and commercialisation of the Higher Education (HE) sector led to a 'global market' of HE where Research Universities of all countries are supposed to participate and compete. As a result and promoting this competition, since 2003 the global rankings of Higher Education Institutions (HEIs) have appeared in the HE landscape. These global university rankings - the Academic Ranking of World Universities (ARWU), the Times Higher Education ranking (THE) and the Quacquarelli

Symonds ranking (QS) - have gained great popularity and success during the last decade, being the World-Class Universities those that compete for the top positions and aim to transform the future knowledge economy and research.

There is a huge debate on the utility of global rankings and their influence. There is extensive research on the policy and practice implications of these rankings [1-3]. However, as Gonzales and Nuñez [4] pointed out, the perceived purpose of these ranking regimes is to identify world class universities, and thus to organize post-secondary education into a competitive transnational market.

Although the European Higher Education Area (EHEA) seeks a limited homogenization of the European HE Systems and Institutions, nowadays the European university sector is strongly heterogeneous but increasingly competitive. Still, when considering the classification of HEIs in the existing global rankings it is possible to identify three categories of European universities: (1) World-Class Universities: elite universities, which exist in the main European countries. They are ranked among the top 100 in global rankings; (2) Research Universities: intensive research-active HEIs. They hold the positions 100 - 500 in global rankings; and (3) Local Universities: with a more specific mission than the above-mentioned universities which is usually focused on teaching activities, or else broader missions aimed to promote the local industry or greater development of their regional socio-economic context. They do not usually appear in global rankings. Most European universities belonging to the first and second category are located in UK, but European Research Intensive Universities are competing not only with HEIs from the United States (US) and other Anglo-Saxon universities, but also with Asian, Middle Eastern and Latin-American HEIs, a global race that was unthinkable a few years ago.

Consequently, although global rankings do not classify national university systems, many countries are reformulating their HE policies to improve the ranking position of their best universities. In fact, present research has addressed how rankings are reshaping the field of higher education. As stated by Hinfelaar and O'Connell [5], most of the European governments are fostering the accumulation of resources and talent in the best HEIs, either by encouraging some leading universities or technical institutions or the momentum of university Collaborations, Alliances and Mergers (CAMs).

In this context, this paper focusses on the analysis of French and Spanish policies and strategies implemented to improve the position in global rankings of the best HEIs of these countries. To this end, we analyse the reaction to global rankings of their HE managers - institutional-level response- and policy makers -state-level response-. This paper is structured as follows: section two highlights the importance to have World-Class Universities for reputation of the countries and the mechanisms that governments and institutions are implemented in the last decade; section three explains the methodology of the analyses performed; section four describes the reform process of the French and Spanish HE systems including the university excellence programmes in France and Spain; section five analyses the case studies: the strategy of Dauphine within the PSL alliance and the strategy of the Universidad Autónoma de Madrid within the CEI UAM+CSIC alliance; and section six points out the main findings and discussion.

The Emergence of World-Class Universities

As Hazelkorn [6] points out, Higher Education is sited on the cusp of an historic transformation and the different developments occurred in HEIs reflect profound changes provoked by the

intensification of globalization and the acceleration of competition. Consequently, many national governments develop policies to stimulate the emergence or strengthening of the top research universities called World-Class Universities (WCUs), which is considered by many authors a necessary step to successfully compete at the global level. In the same vein, Salmi [7] discusses the possible options available for governments to foster WCUs, that is to say, concentrating resources on a few HEIs or promoting CAMs between universities in order to develop synergies; and Albatch and Salmi [8] analyse nine case studies which illustrate the difficulties in building such WCUs.

In line with the findings of these papers, we state two categories of mechanisms that can be used by countries (in their policies) and HEIs (in their institutional strategies) to efficiently increase the size and prestige of universities: internal and external growth. The internal growth mechanism requires extra (public and private) funding allocated to a specific institution, while the external growth mechanism implies any type of university collaboration (CAMs).

Regarding internal growth, public funding of European public universities has dropped in recent years and there are only few governments that explicitly link universities' resources to the results in the areas of teaching and research [9, 10]. Moreover, HEIs have to diversify their income streams, developing their still limited fundraising capacity beyond the traditional research and innovation income streams and tuition fees [11-15].

As regards the external growth mechanism, a possibility could be through alliances between different universities [16]. León [17] establishes a theoretical model in which the governance, budget, life span and thematic area of an interuniversity collaboration are determined by its extent. Based on this theoretical model, we propose the following classification of interinstitutional collaboration (Table 1):

Since 2005, some Asian and European countries have opted for the external growth mechanism having launched national programmes to promote university excellence, which last between three and 10 years: Germany: Excellence Initiative (2005); France: Centres for Research and Higher Education – PRES (2006), Campus Operation (2008) and Excellence Initiatives – IDEX (2011); Sweden: Linnaeus Grants and Strategic Research Areas (2006); South Korea: World Class Universities (2008); Spain: Campus of International Excellence – CEI (2008); United Kingdom: A new 'University Challenge' (DIUS, 2008) and Strategic Development Fund - SDF (2010-2011); Denmark: Investment Capital for University Research Programme - UNIK (2009); Japan: World Premier International Research Centre Initiative - WPI (2009); Malaysia: Malaysian Research University - MRU (2011).

Table 1: Typologies of Interinstitutional Collaboration in Higher Education and Research

Characteristics of the collaboration	Type of collaboration		
	Collaboration	Alliance	Merger
Range	Short-range	Medium-range	Long-range
Governance	Limited to the thematic area(s) of the collaboration	Limited to the thematic area(s) of the collaboration (the partners retain their independence and their own legal entity) A new institution responsible for the management and monitoring of the alliance may be established (e.g. foundation, association)	Common governance for the merged institutions

Budget	Small budget mainly consisting of: - Government subsidies - Profits of the activity in which the partners collaborate	Small budget mainly consisting of: - Government subsidies - Profits of the activity in which the partners collaborate - Contributions of the members of the alliance (from small percentages to significant percentages of the budget of each member)	Common budget for the merged institutions
Life span	Short and usually coupled to obtaining external funding	Indeterminate	Indeterminate
Thematic area	Teaching or R&D activities established beforehand and clearly defined	Areas in which the partners are complementary, such as: education, R&D, transfer of knowledge, facilities or citation policy	All areas of activity of the merged institutions

Source: De la Torre, Perez-Esparrells, Casani [18].

METHODOLOGY

In order to analyse some responses to global rankings of European countries and universities we have chosen two case studies: the national university excellence programmes and university public policies of France and Spain, and the medium-range collaboration strategies or alliances of two universities: Paris-Dauphine and the Universidad Autónoma de Madrid (UAM). As for the two universities, their collaboration strategies show two common basic characteristics: the goal of both universities is to strongly improve their position in global rankings; and both HEIs aim to strengthen (mainly) their research activity through an alliance with other research institutions retaining their individual institutional identity.

France and Spain are both countries which have launched national university excellence programmes in response to the fact that their HE systems are poorly positioned in global rankings, that is to say, their leading universities are not internationally ranked among the first positions, although the level of their HE and research systems are different, as France already had a couple of universities positioned among the top 50 before launching its university excellence programmes, while the best Spanish universities were in 201th - 300th place. But also the differences between both HE systems enrich this study: France has a diversified HE system, with a university system more or less similar to the rest of European countries combined with a separate system of strongly selective HE Institutions, the *Grandes Ecoles*, which implies that many of the best French institutions are not even ranked in the global rankings. In addition, a great proportion of the French research effort is carried out by large research organisations such as CNRS, CEA, INSERM, INRA, which are the instruments of national research policies, therefore only marginally contributing to the rankings of HEIs. Regarding Spain, its public HE system is essentially homogeneous with no big differences among institutions in terms of budget or students selection. Moreover, this selection of countries allows us to analyse the French centralised HE policy and the different Spanish HE policies due to decentralisation.

The case studies have been analysed using a qualitative methodology based on the triangulation of three sources of information: (1) interviews and site visits to senior university managers and personalities related to the public policies and institutional strategies studied; (2) information published by governments on university reform policies and national programmes of university excellence; (3) online information published by the universities and alliances studied about their respective strategies.

In order to gather the institutional information we have interviewed several academic leaders of both universities. Concerning the French case: the President of the Université Paris-Dauphine, the Director of the Institut pour le Management de la Recherche et de la Technologie (IMRI) of the Université Paris-Dauphine, and the Director for the Institutional Relations and the Development of PSL. In the case study of Spain: the Rector of the Universidad Autónoma de Madrid, the Vice-chancellor for Scientific Policy and Research Infrastructures, and the Vice-chancellor for Innovation of the UAM; and the former Deputy Director for Internationalization of the Ministry of Education, who was in charge of the CEI programme.

UNIVERSITY EXCELLENCE INITIATIVES IN FRANCE AND SPAIN

University excellence initiatives in France

The French HE reflected the republican principle of equality, in the sense that there was not a hierarchy of universities, and the sector was basically divided into two types of institutions: non-selective (and almost free) universities and *Grandes Ecoles* that recruited their students through highly competitive entrance examinations and charged higher tuition fees. In recent years, France has undertaken a restructuring of its HE sector aiming to establish a hierarchy of three types of universities very similar to the three European university categories defined in the introduction. One major aspect of this policy has been the encouragement of 'strategic convergence' of *Grandes Ecoles* and national research organisations with universities, in order to eventually improve the position of the latter in global rankings.

This restructuring of the HE system has been developed through new regulation at national level and public programmes aimed to promote university excellence. In 2006 France passed a Law of research programming (*Loi n°2006-450 du 18 avril 2006 de programme pour la recherche*) and launched the Centres for Research and Higher Education (PRES) programme (*Pôles de Recherche et d'enseignement supérieur*). According to the French Ministry of Higher Education and Research, in September 2012 there were in France 26 PRESs that grouped more than 60 universities and a large variety of other institutions, which are clusters of universities and research centres aiming to improve the position in the international rankings of the partners by adding their results.

In 2007 France passed the Law on university autonomy and responsibility (*Loi n° 2007-1199 du 10 août 2007 relative aux libertés et responsabilités des universités*) which provides universities with autonomy for managing the public funds to them allocated, to negotiate on equal footing with research organizations (CNRS, INSERM, etc.) and to set their own strategy.

In order to keep promoting the merger of institutions and to strengthen the PRESs, in 2008 France launched the Operation Campus programme (*Opération Campus*). This programme allocated funds for the establishment of public-private partnerships (PPPs) in which private institutions would renovate, build and maintain the campuses of the selected projects for 20 to 30 years in exchange for a 'rent' paid by the public sector. The programme was provided with € five billion but at the end of 2012 only € 188 million had been spent. According to the *Section des travaux publics du Conseil d'État* [19], one of the main reasons for the failure of the programme was the complexity of the PPPs and the marginal role played by regional governments. Since the election in 2012 of the new government, this procedure has been abandoned and most of these projects are now (or will be) directly managed by public agencies.

By the end of 2010 France launched the Excellence Initiatives programme (*Initiatives d'excellence – IDEX*) endowed with € 7.7 billion with the objective to help structure five to ten World-Class multidisciplinary centres of HE and research. This funding came out of the Investments for the Future Programme (*Investissements d'Avenir*), which was provided with €

35 billion, including among other national priorities, other specific projects also linked to HE, professional training and research such as the already mentioned *Opération Campus* and the *Plateau de Saclay* Project. All in all, the HE and research aspect of the Investment for the Future Programme represents € 22 billion out of € 35 billion and is its first priority covering, beyond the Excellence Initiatives, the funding of a large number of other projects directly linked to research in various fields and technology transfer.

For the IDEX programme itself, two calls for tenders were launched in 2010 and 2011. An independent international jury has selected eight IDEXs (usually PRESSs) considered capable to gain international visibility given their high research and educational potential, efficient governance and close collaboration with their socioeconomic environment. The government has then decided the appropriate endowment for each IDEX (up to € one billion). These projects are to be developed in two phases. During a first four-year phase the endowment is managed by the National Agency for Research and each IDEX receives funds, generated by the endowment's interests, for the initial expenses of the implementation of their projects. IDEXs positively evaluated after this trial period will be directly responsible for the management of their endowment but the funding of projects should still rely on the interests generated during a ten-year period. At the end of this second phase, and after the evaluation of the achievements of each IDEX, the endowments should be given definitively to them with free use. The political changes which occurred in France in 2012 may modify this general scheme in the future, beyond the four-year phase, but this point is not clear as yet.

Table 2: Projects selected in the IDEX programme

Name	Initials	Location area
IDEX Paris-Saclay	IPS	Île-de-France
Université Sorbonne Paris Cité	USPC	Île-de-France
Paris Sciences et Lettres*	PSL*	Île-de-France
Sorbonne Université	SUPER	Île-de-France
Aix-Marseille University IDEX	A*MIDEX	Provence-Alpes-Côte d'Azur
Université de Toulouse	UNITI	Midi-Pyrénées
Université de Strasbourg	UNISTRA	Alsace
IDEX Bordeaux	IDEX BORDEAUX	Aquitaine

Source: authors' elaboration based on Ministère de l'Éducation Nationale de l'Enseignement Supérieur et de la Recherche and l'Agence Nationale de la Recherche.

From the beginning of the IDEX Programme, it was clear that no single interuniversity collaboration model would be favoured by the international jury. The only criterion would be, in each case, the credibility and efficiency of the proposed governance. Therefore, among these eight IDEXs various types of organisations can be observed, from federations between prestigious HE and research institutions in complementary fields which keep their autonomy to merging of several universities.

The recent Law on HE and research (*Loi n° 2013-660 du 22 juillet 2013 relative à l'enseignement supérieur et à la recherche*), among other major topics of this domain, obliges all HE and research institutions to form Communities of universities (*Communautés d'universités et d'établissements*) with a common legal status. The selected IDEXs thus have now to adopt this new status through an organisation that can be based either on a federation of constituent members, with a varied level of mutualised activities and projects, or a full merging of their

structures. Some specific institutions (e.g. research Foundations, Museums, etc.) may only remain associated to these communities with more limited participation to their governance.

The University Excellence Programme in Spain

Regarding the Spanish case its public HE system is a homogeneous system with a fair average quality [20], but with inefficiencies resulting from its excessive atomization, uniformity of its teaching supply and research areas, and weak internationalization especially regarding teaching and academic staff. As a consequence, in 2008 the Spanish government launched the so-called University Strategy 2015 (*Estrategia Universidad 2015 - EU2015*), a strategy to restructure and modernise the Spanish university sector according to the European Modernisation Agenda for Universities [21, 22] by coordinating regional university systems in order to boost the social and economic development of the country.

The Committee of International Experts of the EU2015 produced in 2011 a report to governments called *Daring to reach high: strong universities for tomorrow's Spain* [23] in which measures to improve the Spanish university system were proposed but never implemented. After the change of government a new committee of experts (2013) reported to the Ministry of Education its *Proposals for the reform and improvement of the quality and efficiency of the Spanish university system (Propuestas para la reforma y mejora de la calidad y eficiencia del sistema universitario español)* [24] for which there is not sufficient consensus for their implementation.

The Campus of International Excellence programme (CEI) is one of the strategic initiatives of the Spanish University Strategy (EU2015) and aims to improve the international visibility of the top Spanish universities. The CEI programme started in 2008 and was based on the French and German university excellence programmes already launched in 2006 and 2005 respectively. It has consisted of three calls for projects (2009, 2010 and 2011), having spent over € 686.7 million in subventions (to fund the definition process of the pre-selected projects) and loans to be returned at a low interest and after waiting periods (to fund the implementation of the selected projects).

The CEI programme aims to increase the quality of the Spanish university system through boosting universities' individual quality (and international excellence for those who can achieve it). In order to achieve this goal the CEI programme drives greater specialization and differentiation, the establishment or strengthen of CAMs between universities and other research institutions, greater interaction with private institutions, internationalization and accumulation of talent.

Nowadays, 67 universities have participated in the programme, that is to say, all the 50 Spanish public universities and 59% of the 17 private universities. Also, 16 projects have been awarded with the hallmark CEI (Campus of International Excellence) and 15 with the hallmark CEIR (Regional Campus of International Excellence) – see table 3 on next page.

As a result, the 31 projects awarded comprise almost all Spanish knowledge institutions including in addition to the 67 universities and research centres, the 74% of the companies participating in the Spanish exchange index IBEX-35 as well as, among others, business associations, hospitals or public institutions for regional and municipal development. The specialization fields of the awarded projects usually correspond to the strategies of the regional programmes for economic development.

Table 3: Projects selected in the CEI programme. Calls 2009, 2010 and 2010. CEI hallmark¹

CEI 2009	CEI 2010	CEI 2011
Barcelona Knowledge Campus.	Andalucía TECH.	Horizonte 2015. Donde talento y progreso se unen. Universidad de Navarra
Campus Moncloa: La energía de la diversidad.	Campus ENERGÍA UPC: Energía para la Excelencia.	CAMPUSHABITAT5U
Campus Carlos III.	CAMPUS IBERUS: Campus de Excelencia Internacional del Valle del Ebro.	Campus Vida
UAB CEI: Apuesta por el Conocimiento y la Innovación.	Campus UPF - Icària Internacional.	
Campus de Excelencia Internacional UAM-CSIC.	CEI Montegancedo I2Tech.	
	EUSKAMPUS. Una Universidad, un País, un Campus.	
	Health Universitat de Barcelona Campus (HUBc).	
	VLC / Campus- Valencia, Campus de Excelencia Internacional.	

Source: author's elaboration based on *Secretaría General de Universidades*, Spanish Ministry of Education [25]

Note 1: CEIR are not included.

CASE STUDIES

The strategy of Université Paris-Dauphine within the IDEX-PSL

The Université Paris-Dauphine, created only four decades ago, has imposed itself as an international reference in the field of organisation and decision sciences and is a flagship in the French landscape of HEIs. Indeed, Dauphine has developed a model which can be compared to that of the most renowned French *Grandes Écoles*: controlled student population, rigorous selection of students, five-year basic curriculum with progressive professionalization (possibly complemented by doctoral studies), 'small classes' pedagogy, and intensive and diversified student activities.

Dauphine has designed its strategy independently, with complete autonomy from the central government, and has deemed being founding member of the IDEX Paris Sciences et Lettres (PSL, its best option to ensure its future excellence in terms of international visibility, research, teaching, innovation and socio-economic interaction with its environment.

In fact, PSL is an institutional-level response to the fact that the model of the *Grandes Ecoles* is not successful enough in the current global market for HE. Their model was based on the principles of the French Revolution (e.g. The Ecole Normale Supérieure and Ecole Polytechnique were founded in 1794) and has strongly contributed to the education of the élites and has influenced profoundly society for two centuries, but now French HEIs need to adapt to the new environment.

PSL is a new branded Research University with only 14,000 students (70% at the graduate level including 1,800 PhD students) and 2,500 researchers despite its 20 institutions¹; but 21 Nobel Prizes, 10 Fields Medals and 29 CNRS Gold Medals. It has been initially established as a Foundation of scientific cooperation (although this status will change in the near future as already mentioned) and consists of *Grandes Ecoles*, research organisations and one university, namely Dauphine, which cooperate and progressively mutualise a number of activities, but are not merged.

PSL was chosen as an IDEX in July 2011 receiving a significant endowment (€ 750 million). Its aim is to rapidly become one of the leading universities of the world and be ranked among the top 20 universities. More precisely, the policy of PSL is to emulate its strong and dynamic research potential to propose a comprehensive teaching offer from undergraduate to doctoral studies, in which research is a key element of pedagogy, to develop strong partnerships with the economic sphere, to offer to the broader public its digital, documentary and patrimonial resources and to structure a reactive organisation in three layers forming an efficient governance for strategic decisions, execution and operational implementation. In order to develop this policy, PSL has developed a common medium long term strategy which establishes goals in the fields of internationalisation, research, teaching, funding and transfer and valorisation of knowledge.

One of the most ambitious objectives of PSL is to implement a common citation policy for publications (PSL Research University) which currently would rank PSL in the 30th place in ARWU by only consolidating the existing scientific excellence of present members. The transition to this common citation of each institution is being performed carefully in order to avoid intervening years of confusion. In fact, to ensure its success the French Ministry of Higher Education and Research and the President of PSL have explained to the consultancy company that elaborates ARWU that it is not a cursory transformation, but a profound restructuring of the French university system to adapt to the challenges of globalisation.

The specific budget of PSL consists of the interest income generated by the endowment of the IDEX programme (each PSL member having, in addition, its own budget). It is a small budget and stands for less than 10% of the income of each partner. However, Dauphine expects that synergies among partners would lead to a more efficient use of funding and would promote the development of new excellence activities.

It is worthy to note that PSL was one of the only three projects (and the sole in Paris) selected in 2011 as an IDEX in the first round of the programme because, in addition to its excellence in research and high quality of education, it was the only proposal with a governance model considered suitable by the international jury. Its model is a common one in Anglo-Saxon universities but quite new in France, and ensures the autonomy of Dauphine and the other partners but at the same time makes of PSL a tool to increase their international visibility and enhance their excellence.

The common institutional project of PSL is presently run by a *Foundation for Scientific Co-operation*, a central body which works in association with a Public Establishment for Scientific Co-operation (PESC PSL Formation) while the 20 participating institutions keep their autonomy within PSL. The *Board of Governors* of the Foundation is the executive body. Half of its members are external and comprises the President of PSL, the directors of PSL members, personalities from the economic world and cultural institutions, representatives of the academic staff and international academic personalities, representatives of Paris as well as a government commissioner. Nevertheless, in practice, decisions are taken by the *Steering Committee*, chaired by the President of PSL and composed of the highest authority of each partner. The *Academic Senate* consists of representatives of the academic community (teaching and research staff and students) and it makes propositions to the board of the Foundation in order to promote and enhance debate within the board. The *Committee of Strategic Orientation* has eight (international) prestigious academics which perform the external monitoring of the PSL activity. As already mentioned, the recent law for HE and research will oblige PSL to change this organisation.

The strategy of Universidad Autónoma de Madrid within the CEI UAM+CSIC

The Universidad Autónoma de Madrid (UAM), founded in 1968 is one of the top Spanish universities, being always ranked among the 125 best universities in Europe, the 250 best universities in the world, and the 50 best universities in the rankings of institutions under 50 years all over the world. The UAM proposed to the Spanish Research Council (CSIC) to establish the alliance Campus de Excelencia Internacional UAM+CSIC. The CEI UAM+CSIC was one of the five projects awarded with the official hallmark of the Campus of International Excellence (CEI) Programme in 2009 and so far has received about € 27 million, most of it as loans and the rest of it as subventions.

The mission of the CEI UAM+CSIC is to enhance the teaching, research and transference of knowledge outputs of both institutions. With this strategy, the UAM has taken advantage of the opportunity offered by the CEI programme to universities and has defined its already tacitly existing strategic areas, restructured its organization and strengthened its long-established collaboration with the CSIC. Thanks to this alliance, the UAM expects not only to compete in its strategic fields for a relevant position in the global rankings, but also to increase its interaction with the local environment to lead the cultural, economic and social development. Through an aggregation of the size and performance of both institutions, this partnership is expected to improve the joint visibility of the partners, particularly regarding the impact of the scientific publications of the CEI UAM+CSIC, which may result in a noticeable rise in global rankings. In fact, as shown in Table 4, the UAM alone is the fourth scientific producer in Spain, but when added the CSIC outputs generated in the university campuses, their joint scientific production would be the highest one.

Table 4: Scientific production of Spanish Universities

University \ Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
CEI UAM+CSIC	1,916	1,777	2,007	2,100	2,295	2,406	2,587	2,762	2,849	20,699
Universidad de Barcelona (UB)	1,605	1,611	1,814	1,879	2,104	2,330	2,567	2,757	2,733	19,400
Universidad Complutense de Madrid (UCM)	1,498	1,535	1,735	1,735	1,886	2,068	2,369	2,422	2,490	17,738
Universidad Autónoma de Barcelona (UAB)	949	999	1,189	1,373	1,511	1,848	1,903	2,085	2,132	13,989
Universidad Autónoma de Madrid (UAM)	939	912	1,014	1,094	1,231	1,296	1,416	1,533	1,522	10,957

Source: De Filippo, Casani, Sanz-Casado [26]

The CEI UAM+CSIC integrates: all faculties, schools and research institutes of the University; five joint research institutes belonging to UAM and CSIC; and five research institutes of the CSIC located in the university campus of the UAM. Consequently, the CEI UAM+CSIC consists of the 34,000 students and 2,500 researchers of the UAM added to the 2,500 researchers of the CSIC working in the university campus of the UAM. Even more, Table 5 shows that the productivity of the CEI UAM+CSIC would be peer to some of the most prestigious European Universities, since the alliance between a research centre and a university increases their research inputs (researchers and facilities) and outputs, leads to synergies in graduate teaching, but keep a constant number of students.

Table 5: Productivity of CEI UAM+CSIC vs. European Universities

University	Teaching and research staff 2009	Scientific Production 2002-2009	Productivity
Univ. Pierre & Marie Curie	3,000	27,360	9,12
UAM+CSIC	2,012	17,850	8,87
Univ. de Munich	3,576	30,702	8,59
Univ. de Cambridge	5,826	45,319	7,78
Univ. de Copenhagen	4,406	21,617	4,91

Source: De Filippo, Casani, Sanz-Casado [26]

Regarding the governance structure of the CEI UAM+CSIC, the *Association for the Development of the CEI UAM+CSIC* is the institution in charge of the implementation and monitoring of the project. The members of this Association are the UAM, the CSIC and the Association for the Promotion of Innovation in the North of Madrid (InNorMadrid). The main governing body of the Association is the *Assembly*, which delegates in the Steering Committee the direction, implementation and monitoring of the *Strategic Plan* of the CEI UAM+CSIC. The daily operation of the Steering Committee is performed by various committees for coordination and management.

The project is still at an initial stage having been implemented slower than initially anticipated because of the withdrawal of public financial support. Thus, results are not expected to completely fulfil the initial goals, but still prospects are good and the project has passed successfully the periodical evaluations performed by the Ministry of Education. In addition, both partners have enhanced their teaching quality and research results through collaboration and strategic reorganization of their research structures to increase efficiency, and the CEI UAM+CSIC has already had a major impact on its institutional environment as external stakeholders has become more committed with the university activities.

FINDINGS AND DISCUSSION

Regardless the pros and cons of global rankings, it is a fact that they do influence the reputation of HE systems and institutions. In this context, we have shown that policy makers and HE managers are bound to include in their policies and strategies factors to improve their performance on ranking systems. Therefore, as confirmed by the two case studies, global rankings are impacting national educational policies and long-term strategies of universities, in the sense that both of them are including among their aims the achievement of the required size and prestige for some leading Research Intensive Universities to be ranked in a good position.

In the French case we have observed how the IDEX programme is being successful because of its strong economic investment to fund the university change process, and the autonomy allowed to universities to set their own strategies and choose their strategic partners despite the traditional centralized rational planning of the French Ministry of Higher Education and Research. Moreover, France has only awarded initiatives with the most innovative and consistent governance models.

In the Spanish case, despite the small financial effort made by the government, the CEI program has undergone a process of continuous evaluation, which has led at least in Madrid to the involvement in the results of the project of the whole university community and the stakeholders: local governments (six city councils), public research institutions (IMDEAS, CIEMAT, CNIO, CNIC), one technology centre (Parque Científico de Madrid), small and medium

enterprises and 24 leading companies. However, the next step of the CEI UAM+CSIC is to raise funds from these agents that aggregate the scientific and innovative ecosystem of North Madrid.

Despite the differences between the IDEX and CEI programmes we have drawn the following common goals: encouragement of the definition by universities of their medium and long term strategy; improvement of the HE sector international visibility through enhancing the excellence, specialization and differentiation of the leading universities, international cooperation and recruitment of international researchers; encouragement of university CAMs with other universities, research institutions and companies of their environment in order to achieve greater research capacity, improve their position in the international rankings and drive innovation and economic development; and building of synergies among disciplines, universities and other institutions (non-university research centres, companies, etc.).

As showed by the findings of both case studies, France have implemented three consecutive and completely different programmes for the promotion of excellence in HEIs that have allowed a gradual selection of initiatives and have finally led to only eight IDEX which comprise the most promising CAMs. Meanwhile, Spain has launched a single excellence programme, similar to the first programme implemented in France (PRES), which have consisted of three calls whose objectives and characteristics have gradually evolve in order to increase the programme's effectiveness. During these three calls 16 projects have been awarded with the hallmark CEI and 15 with the hallmark CEIR.

Regardless the above-mentioned differences, both university excellence programmes share similar positive aspects: both belong to a wider national strategy for the modernization of the national university system, and the selection of projects has been performed by an independent international committee and both recognise the need of new governance systems to promote and make visible the excellence of leading universities. In addition, both programmes were initially launched to implement a public policy for the accumulation of resources in the best institutions in order to improve their position in the global rankings, which entails diminishing resources available for the rest of universities, hence increasing the differences between universities. In the French case the IDEX programme has already implemented this policy and therefore, France has identified its flagships; while in the Spanish case the CEI programme has not yet led to a hierarchical HE system.

In particular, the CEI programme success in establishing these differences has been limited because of five main reasons: (1) the withdrawal of the financial support to the projects selected as a consequence of the change of the Spanish government, which have led either to slower advancement in the projects' results or to their dropping; (2) the change of strategic priorities of the Spanish government in the HE field as a consequence of the economic crisis: some specific actions in which these universities invested the CEI funds (mainly infrastructures) are not considered a priority anymore yet they still pose pressure in the universities' budget along with the CEI loans; (3) the decentralised Spanish HE system entailed political pressures that led to award much more initiatives than originally pretended and consequently the financial resources assigned to the programme, much scarcer than in France, have been distributed among a large number of institutions; (4) as the political pressures led to the selection of too many initiatives, the CEI programme intended to identify those projects with real potential capacity to compete globally through the periodical evaluations of the programme, in which the majority of the awarded initiatives were expected to not be able to achieve the promised goals. Nevertheless, the lack of continuity of the CEI programme has not

allowed this gradual selection as occurred in the French case; and (5) the lack of a real change for a new governance system for the empowerment of the HEIs' leaders. Nevertheless, in our view the CEI programme has been able to increase the general efficiency of the system, as it has spread the culture of strategic planning and of synergic collaboration with other institutions among all Spanish Research Universities.

Concerning the strategy of the universities analysed in the previous section, Dauphine has become a partner of a great alliance that is an independent and new branded university, PSL. Although apparently all its educational partners are very different from each other, they share the following core characteristics, which reinforce the logic of the alliance: all educational institutions are *selective institutions* with explicit student selection systems; their teaching prestige is based on strict student selection criteria and a demanding teaching approach; these institutions keep a manageable number of students and do not seek continued growth; and these partners do not compete with each other because they have their own area of activity essentially different from that of the others. To sum up, the educational partners of PSL are *prestigious institutions*, which has been sufficiently proven through time.

In the case of the UAM, in the previous section we have narrated that its strategic alliance has the same goal of improving its international visibility and position in the global rankings, although it has chosen a single partner, and this partnership will not lead to a new university because seeks only to increase the research capacity of both partners by adding and reorganise their resources.

With respect to the strategies of Dauphine and UAM both share the same generic goals: to improve international visibility, to generate a highly competitive world-class research and to improve the reputation of the institutions involved. These common goals are to be achieved also through the same type of strategy, an alliance for which they obtain financial resources from the national university excellence programmes as well as from projects in specific areas and disciplines, and in which the member institutions add their inputs and outputs while keep their autonomy. On the other hand both strategies also have differences regarding their specific goals and budget. The specific goal of PSL is ambitious because it aims to be ranked among the top 20 universities, while the goal of the CEI UAM+CSIC is a moderate one, being to be ranked among the 100th – 200th universities. This is mainly consequence of their different budgets, €750 million in the case of PSL allocated mostly as an endowment, and €27 million in the case of CEI UAM+CSIC, mainly allocated through loans.

Last but not least, the most important difference lies in their governance systems. In the case of Dauphine, it became member of a new branded university with an innovative governance model. PSL designs its own strategy, while its twenty members keep their autonomy regarding their individual institutional strategies. On the contrary, the CEI UAM+CSIC is not a new institution but increase the research capacity through the addition and reorganisation of the research resources and facilities of the two members of the alliance. This will be the base for the real future implementation of its governance model.

In our opinion, the main difficulty of both strategies seems to be the management of their respective alliances, since this ambiguous formula is difficult to administrate. However, PSL seems to have better prospects than the Spanish alliance, since the first one is a medium-range collaboration with a specific legal form and extensive financial resources, while the second one, even though it is an alliance, it has characteristics of a short-range collaboration which has received few additional resources and face harder governance challenges.

To sum up, these strategic alliances add the inputs and outputs of research universities and research institutions, hosting a large number of scientists that generate a highly competitive world-class research with a possible future impact on global rankings. Moreover, they can obtain more financial resources for major projects in specific areas to compete in the global market of Higher Education and this type of strategy improves the reputation and prestige of the institutions involved. Nevertheless, given that these are experiences still in an early stage, time is needed before we can evaluate their results in terms of size, prestige, governance and, above all, global ranking position.

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Modified PBL Approaches in Nursing English Pedagogy and Their Impacts on Student's Achievement, Learning Strategies and Motivation

Weichieh Wayne Yu,

Department of Nursing, Chronic Diseases & Health Promotion Research Center
Chang Gung University of Science & Technology, Taiwan

Chunfu Charlie Lin,

Department of Applied Foreign Languages
National Formosa University, Yuling County, Taiwan

Jenny Wang,

Department of Applied Foreign Languages
National Formosa University, Yuling County, Taiwan

Mei-Hsin Ho

Department of Nursing, Chronic Diseases & Health Promotion Research Center
Chang Gung University of Science & Technology, Taiwan

ABSTRACT

Successful learning often lies in a defined philosophy of social factors that operate in the framework of individual experience. Constructivism, or constructivist learning has been a philosophical shift in the educational psychology. Problem-based learning (PBL) is a prime example of social constructivism. This quasi-experimental study investigated traditional lecture instruction, PBL, and blended problem-based learning (B-PBL) on students' academic achievement, motivation orientation, and use of learning strategies. Positive results for the field of education and B-PBL environments have indicated the need for changes in higher education course design. This study also indicates that a combination of factors for instructing course curricula may be extremely beneficial and essential to consider before designing a course. With findings from the study revealing significantly positive results from the B-PBL group over the PBL group and the Traditional group, its impacts on academic achievement and self-regulation should not be overlooked.

Keywords: constructivist learning, problem-based learning (PBL), blended problem-based learning (B-PBL), ICT, self-regulated learning, motivation orientation

INTRODUCTION

Problem-based learning (PBL) is social and experiential in nature, offers students an opportunity to learn how to learn, while engaging students in complex and diverse problem situations in a socially cognitive sharing environment. PBL is considered constructivist in nature for various reasons; one central reason is that it is student centered, in that it helps students make sense conceptually for themselves. PBL can be implemented in many different ways across many different domains. This type of learning is used to engage the learners into managing their environments with other team members in order to stimulate higher-order cognition. Instead of the curriculum being organized around the subject matter, the curriculum

is structured around problem scenarios, with no predetermined set of right or wrong answers. Initially, students engage first in the involvement of circumstances rather than the concepts. Students learn within specific contexts, while most importantly, they are learning how to learn during a cyclical process where transitions help enhance students' understandings of that context [1]. Evenson & Hmelo [2] suggest using a "Seven Jump" process when implementing PBL into the curriculum. The first step involves clarifying the unknown terms and concepts within the problem description. The second step requires students to define the problem. Third, students analyze the problem by brainstorming, activating prior knowledge. Fourth, students are to describe processes that may lie behind the problem scenario. Fifth, students formulate learning issues or questions for self-directed learning. Sixth, students research and find solutions independently through self-study. The seventh step in the process requires students to share their findings with others in the group and try to integrate the new knowledge into an explanation for the issues and possible solutions to problems. For this study, a modified "Seven Jump" PBL process was implemented. Modifications for Evensen and Hmelo's PBL suggestions were included the use of technology. Students integrated E-campus's information communication technology (ICT) features during the learning process. E-campus is an online course-management system that allows professors to post grades, information, and assignments. Instructors and students can also hold synchronous discussions via chat rooms. It is an interactive, web-based educational tool used to supplement or replace traditional classroom learning, transforming courses into blended-learning environments. Learners can assess to E-campus both on and off campus, and it is used for teaching and also learning support and development.

Very few studies have attempted to combine PBL and blended learning approaches, and those that have focused on presenting multimedia and communication platforms for students within the field of medicine/healthcare [3,4]. This study focused on supporting and enhancing the steps of PBL within the field of English education for pre- as well as in-service nurses. In addition, few studies have been dedicated to motivation's role in self-regulation in PBL and, unquestionably, there is a lack of studies that analyze the motivation levels within a blending problem-based learning (B-PBL) environment. Blended learning involves environments where information communication technology was used in addition to traditional methods of instruction during the learning process. Educators must see technology as a solution for more effective learning environments. Research needs to shift towards how we use technological media along with combined factors of course design rather than delivery mode [5]. In this study, the researcher focused on students' self-regulatory processes, including motivation and metacognitive strategies. More specifically, the researcher studied the impact of teaching via traditional face-to-face instruction, conventional PBL, and blended-problem-based learning (B-PBL) on students' motivation orientation, use of learning strategies, and academic achievement.

REVIEW OF LITERATURE

Barrow [6] explains PBL to be an opportunity for students to solve an ill-structured problem where students will produce multiple thoughts and engage them in numerous explorations to solve the problem. Multiple domains with integrated information are involved within PBL rather than a student simply learning facts from one domain in lecture format. Small groups of learners connect prior knowledge, create their own learning issues or questions of interest about a problem scenario, share findings, and actively determine what information is relative to the problem. There is no basic right or wrong answer to problem scenarios, and the learning takes place in contexts, offering opportunity for people to learn how to learn and to connect learning with their own interests and motivations.

Not only is the majority of the research on PBL centered on medical students and gifted education, the minimal amount of studies that exists outside of these two disciplines focus mainly on areas of flexible knowledge, effective problem solving, critical thinking skills, and self-directed learning skills. PBL has gained much interest of educators because of its potential for motivating students and transference of learning [7]. However, studies on the goals of PBL assisting in developing critical-thinking dispositions and motivation are underappreciated in the field of education.

Self - Regulated Learning

Zimmerman [8] defines self-regulated learning as a reaction of emotional planning adopted to achieve a personal goal. Using self-regulatory strategies effectively vastly affects a student's learning in many ways. Efficient self-regulated learners determine their learning objectives, monitor and evaluate their progress in the direction of meeting these objectives, and select the best strategy to maximize individual strengths while minimizing weakness [9]. Recent studies have demonstrated that a positive association exists between a student's academic achievement and his or her self-regulated learning skills [10-12]. In addition to improving their academic achievement, self-regulated learners can become aware of what they do and do not know. PBL can promote self-regulated learning, and self-regulated learning includes cognitive processes, such as critical-thinking dispositions and motivation orientation used during the PBL process.

According to] Baumeister & Vohs [13] a majority of researchers think more in cognitive rather than motivational terms. Motivation, especially its role in self-regulation has been underestimated. Motivation and willpower are important ingredients in the self-regulatory process. If motivation is high, it can substitute for a lower level of will power to complete tasks. Motivation can enable self-regulation to be successful.

Motivation Orientation

Garcia et al. [14] have defined nine types of learning strategies in relation to motivation orientation. These strategies have been divided into two categories: the first category is composed of cognitive and metacognitive strategies while the management of different resources comprises the other. Cognitive strategies are used to help an individual achieve a certain goal, while metacognitive strategies are used to ensure that the goal has been reached. Metacognitive strategies are those abilities to control or self-regulate one's own cognitive processes. Cognitive and metacognitive strategies include rehearsal, elaboration, organization, critical thinking, and metacognitive self-regulation. *Rehearsal strategy*, which is typically used for simple tasks, refers to the reciting of material or naming of parts to be learned. Used during the encoding processes, it is associated with the working memory. *Elaboration strategy* is often used to make connections between new information and prior knowledge and is associated with long-term memory. Creating analogies, paraphrasing, and summarizing are examples of this strategy. *Organization strategy* can simply be defined as making connections with the material to be learned. Prime examples of this strategy are illustrated by creating outlines and extracting the main ideas from a text. *Critical thinking* is demonstrated whenever students apply their previous knowledge to new situations in order to solve problems, make decisions, or evaluate. Finally, *metacognitive self-regulation* includes strategies, such as planning, monitoring, and regulating, to increase awareness or gain control over one's own cognition.

Blended Learning

Blended course design is combining aspects of a distance online course with the aspects of a traditional face-to-face classroom course. "Blended learning should be an integration of

constructivist teaching methods with face-to-face learning in a classroom within an e-learning environment” [15]. Today’s technologies can provide an opportunity of renovation for instructors where educators should see technology no longer as just a tool from which to present information in lecture format but rather see themselves as facilitators, considering technology as an avenue for the creation of learning experiences. Educators are urged to give much thought and reflection as to which way is the best to deliver content when designing a course [16].

Numerous researchers are reporting positive results utilizing PBL across disciplines [7,17-19], additional researchers are reporting positive benefits within blended-learning environments [20-25]. Higher education must reflect upon technology’s role in providing more successful learning environments. It has been suggested that technology may be beneficial in adapting PBL for specific disciplines [7]. Larson & Sung [5] sum it up best with the conclusion that research needs to shift towards how we use the technological medium along with combined factors of course design and student motivation rather than delivery mode. It is critical then, to focus studies on the types of environments provided for learning. It seems logical to investigate constructivist environments, such as implementing the PBL process to present course material, given the reports of positive results, but taking it a step further and investigating the combination of PBL within a blended-learning environment might reveal an even more successful learning environment. In addition, it seems applicable to study the above mentioned within the field of education with findings such as Walker & Leary’s [26] regarding the notion that teacher-education studies utilizing PBL are doing very well when compared to other disciplines. However, in order to create successfully combined learning environments, the issues that have emerged in the past regarding PBL and technology must be addressed.

Research Questions

The purpose of this study was to investigate the impact of students’ motivation and academic achievement after learning within three different environments, which included instructing one group of students in a traditional lecture format, a second group of students within a PBL environment, and a third group of students within a blending PBL environment, allowing the students to use the information communication technology (ICT) features of E-campus during the PBL process. The following research questions guided this study regarding the impact of various teaching methods on students’ academic achievement and self-regulatory processes:

1. Are there significant differences in academic achievement among students learning via three different teaching methodologies: problem-based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?
2. Are there significant differences in motivation orientation among students learning via three different teaching methodologies: problem-based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?
3. Are there significant differences in the use of learning strategies among students learning via three different teaching methodologies: problem-based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?

METHODOLOGY

Population & Participants

The accessible student population for the study was 150 undergraduate nursing major students enrolled in a regional campus of a science and technology institute in 2014. These

students were mostly in their freshman and sophomore year, aging between 18 and 23. They varied in their educational experience prior to entering the university. English for Nursing Purposes (ENP) is a required course which is offered year-round. Most students take this course during their first or second year of study. An average class size is around 50 students. The same instructor taught all three classes, however, utilized different instructional methodologies within each of the three sections. Students who took the class were encouraged to participate in the study. Voluntary participation was ensured both through explicit verbal and written explanations. The participants were told that they could withdraw from the study at any time and that their participation would in no way influence their academic standing in the class where the questionnaires were distributed. The subjects gave their consent by completing and returning the questionnaire. A total of 150 questionnaires were administered and 120 were returned, resulting in a response rate of 80%.

Instrumentation

Comprehensive Exam

Students were administered one comprehensive course-content pretest and one comprehensive course-content posttest. The comprehensive exam contained 45 questions pertaining to content of the course for the semester. The questions were extracted from the course textbook.

Reliability

A split-halves method was used to test the reliability the comprehensive exam. The researchers asked 30 students who agreed to participate. The Spearman-Brown coefficient revealed .76, indicating a strong reliability and is suitable for evaluating individuals if averaged with several other scores of similar reliability. In addition, a Cronbach's alpha reliability test, an internal consistency reliability test, revealed a good reliability coefficient of .85.

Validity

Chapter questions extracted from the concepts within the course textbook that have been created by experts in the field of English for Specific Purposes (ESP), and several long-term full-time professors and lecturers of the Department of Nursing. To establish the content validity of the items in the pretest/posttest comprehensive exam, experts in the fields of Applied English and Nursing were asked to help identify content necessary for assessment of academic achievement. They were also asked to validate the content of the instrument and review for things such as unclear instructions, confusing, ambiguous or repetitive items, and/or overly complex or difficult sentence structure. The researchers then revised the instrument based on the constructive feedback received from the reviewers.

Motivational Strategies Learning Questionnaire

The Motivated Strategies for Learning Questionnaire (MSLQ) was created to assess undergraduate students' motivational orientations and their uses of different learning strategies. The MSLQ is a self-report instrument, which consists of 31 motivation items (Part A) and 50 cognitive items (Part B), evaluating a student's beliefs about his ability to succeed in a course while the cognitive items assess the use of metacognitive and cognitive strategies. Figure 1 below illustrates the conceptual framework of MSLQ. The cognitive items also assess a student's resource management. Students rated themselves on a Likert scale (1 = not true of me, to 7 = very true of me). Students' value of task, expectancy for performance upon a task, and affective test anxiety are assessed through the instrument. The motivation subscales include intrinsic and extrinsic goal orientation, task value, control of learning beliefs, self-

efficacy, and test anxiety. The learning strategies section contains four cognitive scales including (a) rehearsal, (b) elaboration, (c) organization, and (d) critical thinking.

The MSLQ is considered to be a reliable and valid means for assessing college students' motivation and use of learning strategies [27].

Reliability

For the MSLQ, internal consistency and reliability were shown to be sound according to the coefficient alphas for the motivational scales and learning strategy scales. Task value beliefs concerning students' ratings about how interesting, useful, and important the course material is to them had a very high alpha of .90. Students' judgments of self-efficacy for learning had a high alpha of .93. Test anxiety and intrinsic goal orientation subscales showed internally consistent estimates with .80 and .74. Learning strategies showed alphas averaging above .70. Yielding the lowest results, extrinsic goal orientation and control of learning beliefs yielded coefficient alphas of approximately .65, while help-seeking indicated the lowest alpha of below .60 [28].

Validity

VI [29] was used to estimate and test the models. Thirty-one motivation items were tested to see how well they fit six factors: intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance, and test anxiety. Fifty cognitive/metacognitive strategy items were tested to see how well they fit nine factors: rehearsal, elaboration, organization, critical thinking, metacognitive self-regulation, time and study environment management, effort regulation, peer learning, and help seeking. Goodness of fit tests indicated that they are quite reasonable values, given the fact that they are spanning a broad range of courses and subject domains. Overall the models show sound structures with a claim for factor validity for the MSLQ scales. Chi-square goodness-of-fit test is used to see if the sample comes from the population with the claimed distribution. The Goodness-of-fit test for the motivation six latent factors resulted in .77, with the largest modification index provided by Liserel VI at 50.2. The very same test for the cognitive nine latent factors was .78, with the largest modification index provided by Lisrel VI at 91.59 [30].

TEACHING/ LEARNING CONTEXT

Traditional Face-to-Face Procedures

Pretests of comprehensive exam and the Motivational Strategies Learning Questionnaire (MSLQ) were administered during week two of this 18-week course. The traditional face-to-face format of instruction consisted of the instructor lecturing while covering chapters one through eight of the course textbook. The instructor lectured, utilizing PowerPoint presentations in addition to distributing PowerPoint handouts to the students during each session. Regarding assessment, during each chapter section, there were some small group (non-PBL) work activities related to the chapters along with outside homework assignments of reading the text chapters and journal-entry review assignments. Each review assignment required the students to read additional information beyond the text, yet related to the chapters. Throughout the semester, students completed a total of four (4) quizzes, each covering two lessons in the textbook. During week seventeenth, students were administered the MSLQ questionnaire posttest. During the week of the finals, a comprehensive exam administered covering chapters one through eight of the text, which was the posttest for this study. Students were asked not to study for this final exam, as the result would not count towards their final grade.

PBL Procedures

The PBL format of instruction consisted of the same instructor taking on the role of the facilitator. A comprehensive course-content pretest and a MSLQ pretest were also administered during week two. Students were divided into groups of five. Each group was assigned the same problem over which they researched and collaboratively discussed. The students worked on problem-based assignments for two to three class periods, depending upon the length of the chapter.

Students completed part of the problem-based process in the computer lab. In addition, there was one class period dedicated to teacher-led PowerPoint whole-group discussion relative to each chapter, following total completion of the problem-based assignment corresponding to the chapter. According to Schwartz & Bransford [17], students solving problems before the lecture performed better on problem-solving tasks than those students who just solved the problems.

A modified "Seven Jump" for PBL was used for this study. Students received problems each week relative to the chapter of course textbook. Modified "Seven Jump" process required students to complete a 6 step PBL process. First, the students defined the problem. Secondly, they brainstormed ideas and solutions to problems in order to activate prior knowledge. Third, they developed learning issues or questions about which they would like to gain new knowledge. Fourth, they researched individually to primarily find a solution to the problem. During the research stage, students were provided with handouts of links to look up on the World Wide Web. The 5th step involved group reconvening, in order for discussion of findings. All five steps were completed during two-hour class period. The following class period was scheduled for whole group discussion. Between the PBL assignment and whole group discussion, students completed 6th step which required participants to individually write a one-page journal entry explaining how their group decided to solve the assigned problem, during their in-class collaboration step of the PBL process. Students submitted a one-page reflection at the beginning of the following class discussion period. These procedures were consistently followed for each of the eight problems, relative to textbook chapters, presented over the 18-week semester. Table 1 below illustrates sample English for Specific Purposes (ESP) class format of a conventional PBL. In week seventeenth, students were administered the MSLQ questionnaire posttest. During final's week, students were again administered a comprehensive course-content posttest covering chapters one through eight of text.

Table 1. Sample Class Using A Conventional PBL Format on *Oncology* unit

PBL Step	Class Period/ Place/ Duration	Procedures
	Before Class	<ol style="list-style-type: none"> 1. Students will read a medical column/admission note relative to the chapter/unit. 2. Problems provided to students before class, i.e. <ul style="list-style-type: none"> • What is the Oncology Unit? • What are different types of cancer? • What are the stages of tumor development? • How is cancer treated? • What are some possible side effects of Chemotherapy? Etc.
1 (Define)	Class 1/ Classroom & Lab./ 2 hrs	<ol style="list-style-type: none"> 1. Watch Video Clips of (Hawthorne and/or ER) 2. Students define the problems received prior to class

2 (Brainstorm)		Students brainstorm ideas and solutions to activate their knowledge.
3 (Develop)		Students develop learning issues/questions about which they'd like to gain knowledge, i.e. <ul style="list-style-type: none"> • Conduct an admission interview • Communicate with the patients during hospitalization • Talking about side effects after treatment • Discharge teaching • Language useful for explaining medication
4 (Research)		Students research individually to find solutions to the problem(s).
5 (Reconvene)		Group members reconvene to discuss their findings
6 (Discuss)	Class 2/ Classroom/ 2 hrs	Whole group discussion, including completion of a collaborative one-page reflection.

Blended-Problem-Based Learning (B-PBL) Procedures

Pretests of comprehensive course-content and MSLQ were administered in week two. The B-PBL environment required the students to follow the same PBL steps; however, the approach was diverse. The main difference for the B-PBL process was the flexible nature of technology, allowing for more time and a break between steps. The theme of PBL flexibility issues reported from the research [31,32] was taken into account with the notion that students indicated needing more time for thorough completion of the PBL process. The students did not complete all five steps of the PBL process in one class period as described above in PBL group. Rather, the B-PBL students were allowed the opportunity to complete steps 1-4 only at their own pace during the entire two-hour class session, depending upon the length of time each group needed to work. Step 5 of PBL process was separated from the other steps and completed outside of class within E-campus's chat room. This type of blended teaching methodology offered the groups an opportunity for more time to complete the PBL process based upon how their group operated and completed tasks, lowering frustration levels.

In addition to using the chat room feature of E-campus, students used supplemental information communication features of E-campus. They used the discussion forum to post questions and times for students to meet regarding their PBL assignments, allowing for alternative communication outside the classroom. Also, during the B-PBL process, students used the technological convenience of E-campus's information-communication features to download PowerPoint presentations, PBL assignment sheets, and research links. During the research stage, students were provided with links through E-campus's posting features, which served a purpose to save time during the in-class step 4. After completing the chat session step 5 from the students' computers at home, the students were asked to write a collaborative group reflection as step 6 as their homework assignment. Students were given a MSLQ posttest and a final comprehensive test in their designated time.

DATA ANALYSIS

The statistical data analysis used for the comprehensive exam data scores were parametric statistical techniques. The dependent variables for this study were academic achievement, motivation orientation, use of learning strategies, and critical-thinking dispositions. The independent variables were three different instructional modalities, including traditional face-to-face lecture, PBL, and B- PBL. In order to test for statistical differences an ANOVA was used

on the pretest/Posttest comprehensive exam for the three groups of students being taught via different teaching methodologies. A Multivariate analysis (MANOVA) was used on the pretest/posttest subcategory scores relative to self-regulation. MANOVA was initially run to test for significant differences at the pretest for the MSLQ. When significant differences were noted among the groups at the pretest, the researcher must consider the Analysis of Covariance (ANCOVA), given that the sample population was not randomly selected. Statistical analysis was performed using the most current version of Statistical Package for Social Sciences (SPSS) for Windows.

RESULTS

Research question one asked: "Are there significant differences in academic achievement among students learning via three different teaching methodologies: problem-based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?"

Table 2 shows the descriptive statistics for students' academic achievement scores on the comprehensive exam. The B-PBL group had the highest mean average of 79.13, while the traditional group had the lowest mean average score of 65.34 on the posttest.

Table 2. Descriptive Statistics Comprehensive Exam Pretest/Posttest Scores for Academic Achievement

	Group	Mean	SD	n
Pretest Academic Achievement	PBL	21.17	8.30	40
	B-PBL	25.48	8.68	39
	Traditional	24.10	8.51	41
Posttest Academic Achievement	PBL	70.37	10.71	40
	B-PBL	79.13	12.50	39
	Traditional	65.34	11.62	41

No statistically significant differences were found by the ANOVA test on students' pretest scores. However at the end of the study, based upon posttest scores, the groups were significantly different, $F = 10.83, p < .05$.

Table 3. ANOVA for Comprehensive Exam Pretest/Posttest Scores for Academic Achievement

		Sum of Squares	f	Mean Square	F	Sig.
Pretest	Between Groups	295.00	2	147.50	2.042	.14
	Within Groups	6284.59	117	72.23		
Posttest	Between Group	2935.09	2	1467.54	10.82	.00*
	Within Groups	11795.00	117	135.57		

A post hoc Tukey HSD multiple comparison test was necessary to determine group differences after significant differences in scores were revealed. Table 4 illustrates the data for the Post Hoc Tukey HSD individual between group comparisons at the posttest for academic achievement. There was a significant difference between the B-PBL group and the PBL group at the posttest with $p < .05$. The B-PBL teaching methodology was shown to have a significant impact on the students' academic achievement posttest scores. In addition, the B-PBL group had significantly higher posttest scores than that of the PBL and the traditional groups.

Table 4. Tukey HSD Post Hoc - Individual Comparisons between Groups at Posttest for Different Teaching Methodologies Impact on Academic Achievement

Time	Group(I)	Group(II)	Mean Difference	Sig.
Posttest	B-PBL	PBL	8.76	.01*
	PBL	Traditional	5.02	.23
	B-PBL	Traditional	13.78	.00*

Research question two asked: "Are there significant differences in motivation orientation among students learning via three different teaching methodologies: problem based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?"

As illustrated in Table 5 Roy's Largest Root multi-variant test (MANOVA) revealed that the motivation orientation pretest mean scores were not significantly different with $F = 2.99$, $p > .05$.

Table 5. Multivariate tests - MANOVA for Motivation Orientation category at Pretest / Posttest

		Value	F	Hypothesis df	Error df	Sig.
Pretest	Roy's Largest Root	.20	2.99	6.00	89.00	.060
Posttest	Pillai's Trace	.29	2.31	12.00	164.00	.060

At the posttest, table 6 shows the test of between subject effects revealed that the subcategory of test anxiety was significantly different among the groups ($F = 7.82$, $p < .05$). There were no significant differences among the groups' mean scores at the MSLQ posttest for the subcategories of control of learning beliefs, intrinsic and extrinsic goal orientation, self-efficacy, and task value.

Table 6. Test of Between Subjects ANOVA for MSLQ Posttest on all Six Subcategories of Motivation Orientation

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Groups	Control of Learning Beliefs	2.98	2	1.49	2.07	.13
	Extrinsic Goal Orientation	5.57	2	2.79	2.56	.08
	Intrinsic Goal Orientation	1.01	2	.51	.65	.52
	Self-Efficacy	2.02	2	1.01	1.44	.24
	Task Value	.11	2	.06	.05	.95
	Test Anxiety	31.65	2	15.82	7.82	.00*

A Tukey HSD post hoc test showed a statistically significant mean difference ($p < .05$) existed between the B-PBL group and PBL group (as shown in Table 7), indicating that the B-PBL group's scores were significantly lower than the PBL group's scores. Therefore, the B-PBL group has significantly lower levels negative disruptive thoughts during test performance. A significant difference was also found between the traditional group and the PBL group ($p < .05$), suggesting that the traditional group's scores were significantly lower than the PBL group's scores. Thus, the traditional group had significantly lower levels of negative disruptive thoughts during test performance.

Table 7. Tukey Post Hoc - Individual Comparisons between Groups at MSLQ Motivation Orientation Posttest Test Anxiety

Time	Group (I)	Group (II)	Mean Difference	Sig.
Posttest	B-PBL	PBL	-1.24	.00*
	PBL	Traditional	1.28	.00*
	B-PBL	Traditional	.04	.99

Research question three asked: "Are there significant differences in the use of learning strategies among students learning via three different teaching methodologies: problem-based learning (PBL), blended problem-based learning (B-PBL), and traditional face-to-face lecture classroom instruction?"

Based on pretest scores, the MANOVA results for the MSLQ revealed no preexisting differences among groups with respect to students' use of learning. With regard to posttest scores, a one-way ANOVA revealed a significant difference among the groups for critical thinking and help seeking for the use of learning strategies category, with $F = 3.45$, $p < .05$. A post hoc Tukey HD test (Table 8) showed a significant difference existed between the PBL group and B-PBL group. In addition, a significant difference occurred between the B-PBL and the traditional group for critical thinking skills.

Table 8 - Tukey Post Hoc - Individual Comparisons between Groups at MSLQ Use of Learning Strategies

Time	Group (I)	Group (II)	Mean Difference	Sig.
Posttest	B-PBL	PBL	.77	.02*
	PBL	Traditional	-.15	.65
	B-PBL	Traditional	.62	.05*

DISCUSSION & CONCLUSIONS

With regard to the comprehensive exam, the findings showed that there were statistically significant differences among academic achievement scores for the traditional, PBL, and B-PBL groups. Interestingly, the study revealed that the B-PBL group had a statistically significant difference in tests scores from pretest to posttest than the Traditional group and the PBL group. The B-PBL group's academic achievement posttest mean scores were significantly higher than the PBL mean scores and the Traditional mean scores.

For the MSLQ's motivation orientation category, the findings showed that at the pretest, only the self-efficacy for performance and learning subscale showed significant differences. It may have been that the groups were similar at the pretest on control of learning beliefs, extrinsic motivation, intrinsic motivation, task value, and test anxiety. At the posttest, the findings for motivation orientation category revealed statistically significant lower levels of test anxiety for the B-PBL group than the PBL and the Traditional groups. As far as the MSLQ's use of learning strategies category is concerned, the findings showed no significant differences among the groups at the pretest on all subscales. At the posttest, the findings for the MSLQ's use of learning strategies showed a statistically significant difference among groups for the subscale categories of critical thinking skills and help seeking. The B-PBL groups critical thinking skills subscale scores were significantly higher than the PBL group and the Traditional group.

One of the most notable findings from this study, resulting from the MSLQ subscale, was test anxiety scores measuring significantly lower in both the B-PBL group and Traditional group when compared to the PBL group. The B-PBL group and the Traditional group had significantly

lower scores for test anxiety. Having lower levels of test anxiety means that students in the B-PBL group and the Traditional group had significantly lower levels of negative and disruptive thoughts during test taking. "Test anxiety has been found to be negatively related to expectancies as well as academic performance. Cognitive concern and preoccupation with performance have been found to be the greatest sources of performance decrement." [33].

Another notable finding from this study, regarding the use of learning strategies, revealed that the students in the B-PBL group had significantly higher critical thinking skill scores than the PBL group and the Traditional group. There was no significant difference in critical thinking between the Traditional and the PBL group. Relative to theory, a possible explanation for the critical thinking skills findings, according to Baumeister & Vohs [34], are that students have a limited stock of resources, such as decision making, for example. The PBL process is a very time consuming and a tedious process that can be overwhelming and can deplete a student's cognitive resources before the entire process is complete, raising anxiety if forced to complete all steps thoroughly in one class period. These findings could indicate that using E-campus discussion and chat room features as part of the PBL process allowed the students a longer amount of time for longer in-depth discussions outside of class, with a break in between PBL steps. Longer in-depth discussions allows more time for developing critical thinking skills. In this study, the PBL learning process did give the learner much control over their own learning and demanded for reflective thinking. Means et al. [35] suggested that several researchers have found that when learners are exposed to opportunities in which they have more control over their learning environments, the results have revealed larger gains over teacher-lead expository instruction [36-38]. The results of the study echoed that of the previous researchers by showing that within the B-PBL environment, students had much more control over their own learning during the entire PBL face-to face-and online.

The findings of the study also add to the literature that the B-PBL group scored significantly higher than the PBL group for use of learning strategies in the subcategory of help seeking. Research indicates that peer help, peer tutoring, and individual teacher assistance facilitate student achievement [39]. Karabenick [39] further explains using technology to communicate diminishes the potential of feelings of embarrassment created while asking questions in person. Kitsanta & Chow [40] concluded that overall, students preferred using electronic means to seek help from instructors and classmates. Shyness, language and learning styles barriers are removed. These statements are supported by the current study, because the B-PBL groups had significantly higher help seeking scores and significantly higher academic achievement over the PBL group that did not use technology through which to communicate. Researchers imply that web enhanced and distance learning environments, more than traditional learning environments, facilitate help seeking because of reduced threat and effort, higher quality, convenience, and assisting with requirements [40,41]. The findings from the current study also support these researchers' conclusions in regards to online technology and web enhanced environments assisting students with help seeking. PBL environments fosters a need for student support; however, in the PBL non technology group, there were no communication tools offered that allowed students the opportunity to seek support from other members as did the B-PBL course. Also, perhaps frustrations, anxieties, and time constraints distracted students to the point of creating the inability for them to have the opportunity to effectively seek help from other students. In the traditional classroom setting non PBL group work did occur, and without time constraints, along with a familiar pattern of instruction, could have caused the students to feel more at ease to seek help during group work, possibly explaining why there was no significant difference in help seeking between the B-PBL group and the Traditional group.

RECOMMENDATIONS FOR FUTURE STUDY

Basing on the results obtained from the study, the researchers made the following recommendation for future study: First recommendation would be to obtain and analyze data from a larger population accomplished through a longitudinal study. Another recommendation would be to conduct a qualitative study on student's views regarding the usage of E-campus as part of the PBL process. For instance, students could be asked about their feelings regarding group work pros and cons during E-campus chats. Moreover, how students feel about the B-PBL methodologies of instruction could give educators some insight into why certain motivation orientations and use of learning strategies are or are not significantly enhanced in the B-PBL group. Finally, a recommended study would be to compare B-PBL environments and PBL environments and the effects on students' collaborative skills. PBL learning is a meaning making process that can help develop intra-community trust. Investigating collaborative skills within these two types of environments can help researchers better understand how students are transformed from strangers into communities.

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Political Behavior Typology of Students As First-Time Voters

Adela Danaj

European University of Tirana
adeladanaj@hotmail.com

Roland Lami

European University of Tirana
roland.lami@uet.edu.al

ABSTRACT

The study of political behavior is a fundamental issue for the analysis of democratic systems, since it derives the choice of government. This is why many researchers have paid a particular attention to the behavior of the first-time voters. During these years a number of studies have been undertaken to identify potential variables that influence the behavior of the electorate. The role of parents, friends, teachers, school programmes, during adolescence and online social network, are ordered as key factors from recent research. For transition democracy countries, like Albania is, case studies regarding voting behavior have been limited. Therefore, given the fact, a study to understand the influence of explanatory variables in political behavior of first Albanian voters— was conducted. The study involved about 280 questionnaires and the survey was realized in a period of 4 days. The survey was conducted in six universities in Tirana, such as: European University of Tirana, Epoka University; Beder University; Tirana University; Faculty of Social Sciences; University of Medicine in Tirana. The data obtained from the study, confirmed the thesis that the political orientation of the first voters in suburban areas, affects more family than friends, while in metropolitan influences more group and online social networks than family.

Key words: Political behavior, Parents, Peers, Socialization, Online social networks, Political parties.

INTRODUCTION

Electoral behavior mostly on features that affect the final decision of the voters, which is very important for any political parties competing in the election process— is widely discussed in political debates. This is why many researchers have paid particular attention to analyze the first voters behavior. Research conducted in this area have primarily focused on identifying possible variables that affect political behavior of youth. In this context, among the possible variables that were attributed a significant measure of influence are: the role of parents, peers, teachers and different school programs (Beck & Jennings, 1982; **Martin 2012**, Buckingham, D. (ed.) 2007; Marsh, D., O’Toole, T. & Jones, S. 2007).

Not without reason, the most important role in the socialization process is attributed to the influence of family and specifically the influence of parents in shaping the political views among adolescents (Milburn and Conrad, 1998). Other researchers, like Jaime Settle or Robert Bond (2010) have extended this framework to include the effects of school facilities and civic education in school curricula, as well as experiences in adolescence as involvement in extracurricular activities and the use of online social networks. However, the role of the family

in shaping political values remain crucial in the adolescence age, (Dawson and Prewitt 1969), the more that society teenager is very important for the individual, because it enables him emotional support in the delicate phase of separation from family and the construction of an independent model. Teenagers gradually internalize the values of their family, they try to choose friends and peers from the same stratification or social background of their families (Conger, 1973). They are so interested in politics and religious issues, as their families. According to Hartup (1983: 65) "...the gap between generations within a family is much dimmer than considered several decades ago. It is obvious the fact that the values and aspirations of younger generations and older ones within a family are very similar".

It should also be noted that parental levels, civic engagement and the socio-economic status of parents, influence the orientation of their child (Beck and Jennings 1982:94-108). Researchers as Torney-Purta, (2002) have explained that the family contributes to civic learning. Parents activity as parents membership in various organizations, news monitoring, news monitoring discussion, political knowledge, public communication or other services that they can do in the community, greatly influence the formation of their child (Mc Intosh, Hart and Youniss 2007: 495-499). Other researchers as Meirick & Wackman (2004) have found in their studies positive reinforcement through politics and voting discussion in the family, also, parents taking children into the voting booth, can have a positive effect.

However, these data are valid until they are not taking into account the new changes that have occurred within the family. Many authors support the idea that a family is not static, but a dynamic environment that undergoes changes and transformations under the influence of processes that interact with it. "Family structural and functional changes are undergoing family changes as a social institution, along important social changes. The family has undergone major changes in the influence of the industrialization process" (Saraceno,1998:24). Perhaps, this means that the family is losing the impact that has had in shaping the political beliefs of their child as a result of the transformations that have occurred in global societies.

Problem and Purpose

The main purpose of this paper is to analyze the factors that influence the electoral behavior of Albanian first-voters and creating an analytical profile of electoral conduct. The study focuses on the review of indicators such as: family, children's relationship with parents, social groups, friends, relationship with them, partner, friends in online social networks—to analyze the factors that influence the electoral behavior. To conduct the study, as study unit, first and second -year students from public and not- public universities in Tirana, the capital of Albania – were selected.

METHODOLOGY

Methodologically, as a tool to provide empirical data, this study uses quantitative methods and random sampling. The sampling includes 280 questionnaires consisting of 42% females and 58% males while the university selection is random and not selected based on any specific criterion. The survey was conducted in universities such as: European University of Tirana, Epoka University; Beder University; Tirana University; Faculty of Social Sciences; University of Medicine in Tirana. Specifically, 36% of respondents, study to the European University of Tirana, 22% at Beder University, 14% in Epoka University, 14% at the University of Medicine and 14% in the Faculty of Social Sciences in Tirana. All these universities are located in Tirana.

The survey was conducted on a four-day period. Data from the survey found, disposed of in a table format in excel and were analyzed by using descriptive statistics. Data analysis was

opposed by the questions raised and the main lines of the paper. The paper maintains the anonymity of the participants in the survey.

Basic assumption. Referring to the first-time voter behavior in Albania, was noticed that those who live in suburban areas tend to manifest more political convictions of parents versus peers than students who live in large urban areas that manifest more political convictions of peers than their parents.

Research question: *What are the factors that affect voting behavior of students as first- voters in Albania and thus shape his profile?*

Research sub-questions:

- To what extent and manner the relationship parent - child affects the voting behavior of the student as first voters
- To what extent and manner the social group affects the voting behavior of the student as first voters?
- To what extent and manner the online social networks affects the voting behavior of the student as first voters?

RESULTS AND DISCUSSION

The parent- child relationship role in the political preferences of adolescent

Given the data provided by the survey results that one of the variables that affects a considerable extent on the political behavior of students as first- voters is family. The charts below illustrate exactly that. Initially, students were asked if they were consulted by parents for their vote and the data in the chart below confirms that: 19% said they were consulting (very), 14% confirmed that they were consulted (enough), 38% were consulted (least), versus 29% who said they (were not consulted at all). These data show a high tendency of family influence. Take a look to chart no. 10

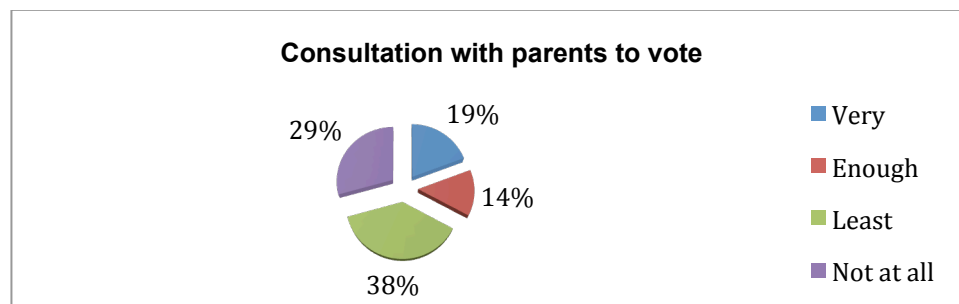


Chart No. 10. Consultation with parents to vote

There is an interesting fact. After being asked if their vote was similar to one parent, the respondents confirmed that: 48% of them confirmed that their vote was like the father votes, 40% confirmed that their vote was similar to the mother, while 12% of students stated that their votes did not fit with either parent. So, about 88% of respondents claimed that their votes manifest the voting behavior at least of one of the parents pushed us to think that we are still a strong gender division society.

Take a look to chart no. 11 on next page.

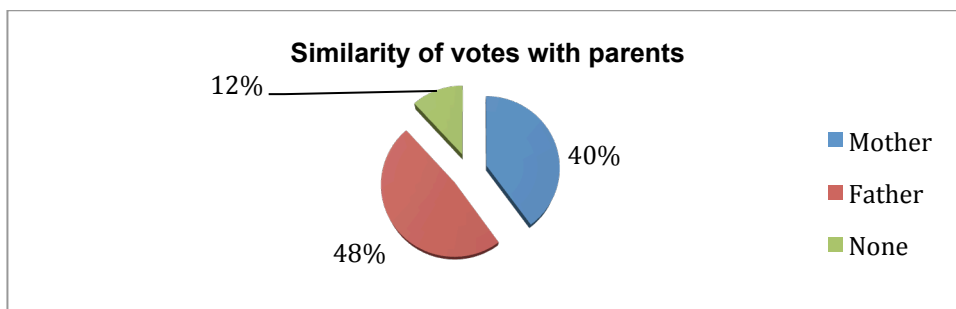


Chart No. 11. Similarity of votes with parents

In the framework of the variable regarding to parent- child relationship and the impact they would have on the political preferences of their children later, in the survey was predicted the question if teenager voters had gone at the same time with parents to vote . Their answers are presented in the following chart:

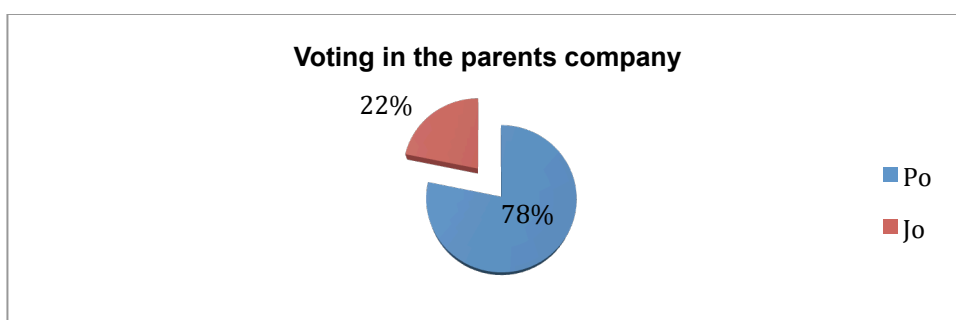


Chart No13. Voting in the parents company

From the above data affirm that 78% of respondents claim to have gone to vote at the same time with their parents and only 22% of them have gone with their friends. This data reinforce the idea that Albanian society considers the vote moment as a moment in which the family involvement is necessary and does not consider it as an individual process.

The social group role in shaping the political convictions to student as a first- voters in Albania for the general election in 2013

This section analyzes the relationship of the adolescent with the group through questions. They are asked if are consulted with their friends or partner about their vote before voting and the respondents stated at survey as follows: about 60% of the respondents chose "least" alternative , while 32% of them responded that "were not consulted" with their friends, compared with 2% who have claimed that are consulted "enough" and 6% "satisfactory". These data show a smaller effect of peers about the political behavior.

Take a look to chart no. 15

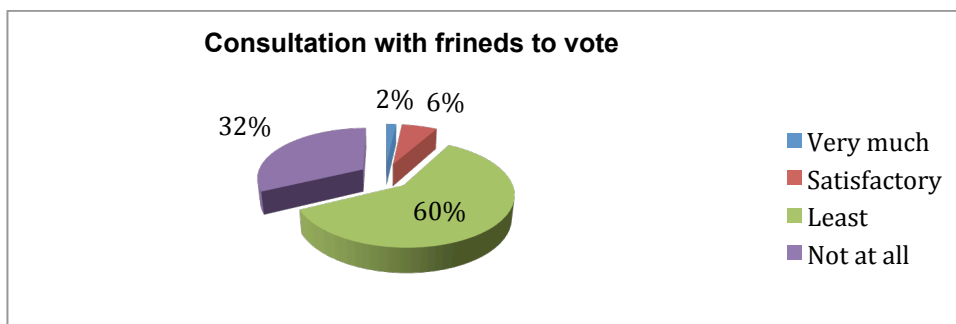


Chart No. 15. Consultation with friends to vote

Despite the fact that a smaller number of them is consulted with their friends about the vote, in the focus of the study, the questionnaire had anticipated and another data for the category who claimed that were consulted with friends. The respondents answers shows that 80% of them claimed to have discussed the issue with school friends and only 20% of them claimed to have consulted their vote with childhood friends and none of them have not shared this conversation with neighborhood friends or online social networks friends. This data reveals that the school continues to be one of the most important institutions in the process socialization process for Albanian youth and in particularly for Albanian students. This data is demonstrated in the chart below:

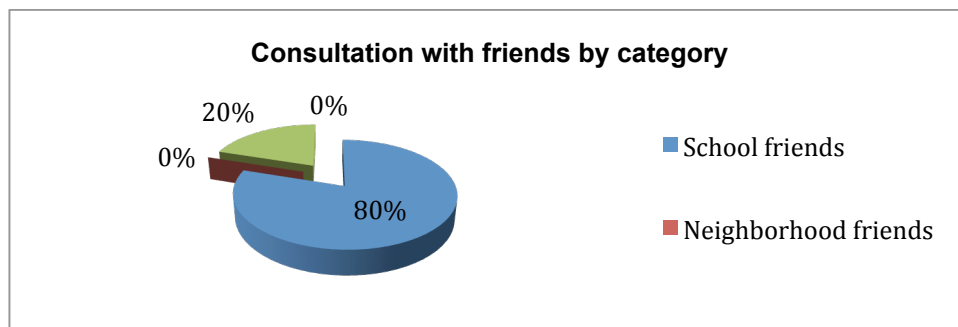


Chart No. 16 Consultation with friends by category

Another question that was involved in the survey was to find out the similarity vote of the respondents with their friends and if this vote was or not identical between them. The data show that 36% of respondents claim that their vote is identical with friends and peers. Of course, this information should not be interpreted strictly as a data that identifies friends influence on the political views, because we must remember that by processing the above data, we concluded that most of majority students involved in the survey were not consulted before with each other about their vote, but this data assume some common factors existence that may have influenced on their similar political perceptions.

Take a look to chart no. 17

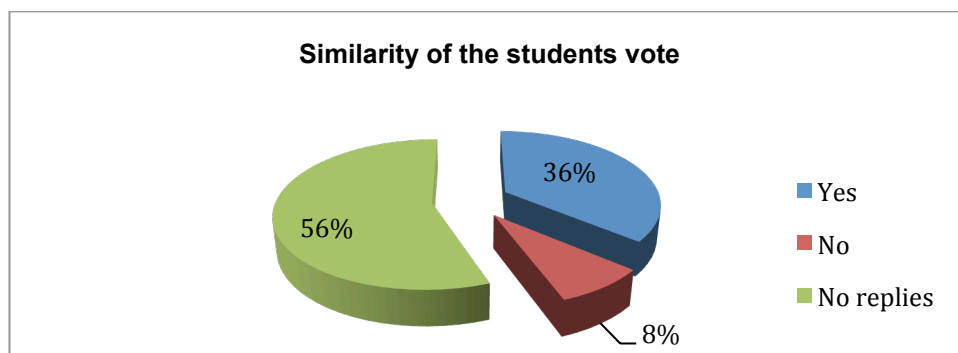


Chart No. 17 Similarity of the student vote

Another question anticipated on survey was related to the time of voting. Students involved in the survey were asked if they had gone to vote with their friends at the same time and post-processing of the data was confirmed that 83% of respondents did not go to vote with their friends at the same time and only 17% were confirmed to have been in the company of their friends at the voting time. According to these data was confirmed again that most of the students surveyed have gone on their family company to vote, as it was found by processing the above data in the testing session of the independent variable regarding parent-child relation.

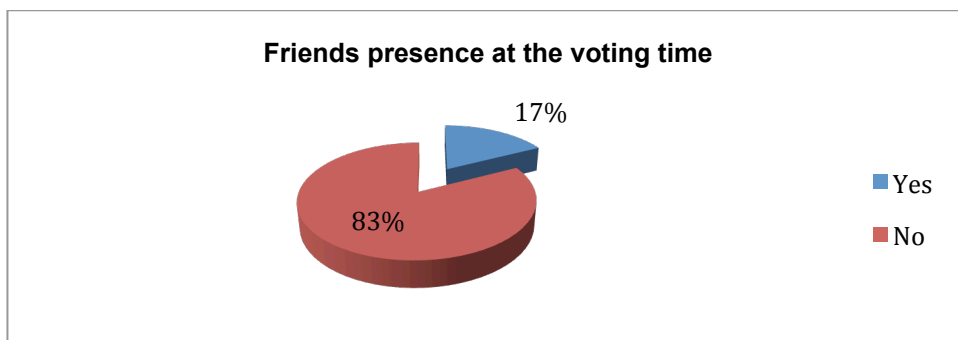


Chart No. 19 Friends presence at the voting time

Students that had gone in the same time with their friends to vote were asked if their vote were influenced by them. The data shows on the chart below confirm that 65% of respondents were not affected at all by their friends company, while 27% confirmed that were “enough” affected, 2% confirmed that were “very much” affected by their friends company and only 6% of them confirmed to have been “least” affected.

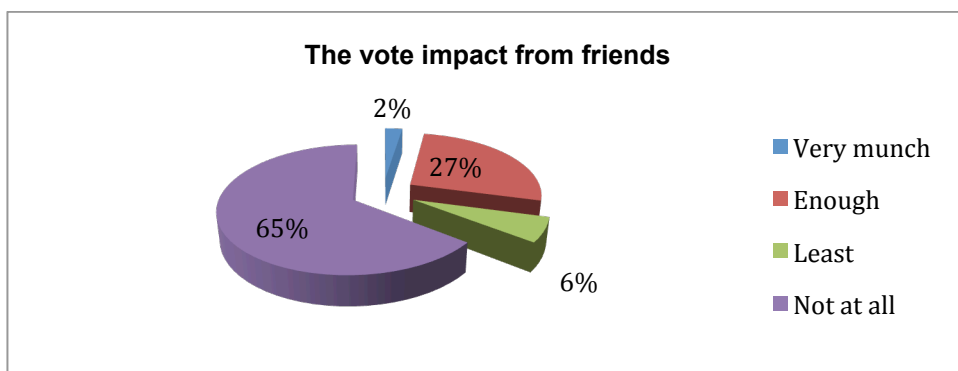


Chart No. 21. The vote impact from friends

Students who live in large urban areas and those living in peripheral urban areas comparison

The similarity of the student vote in the parliamentary elections of 2013 in relation to their parents was analyzed according to the divisions in the urbane area (metropolis) and peripheral urban areas. Comparative data show that the influence of variables: parents, peers, partner, is different. Specifically, in peripheral urban areas vote similarity with parents, respectively, 39% with mother and 51% with father, is higher than in urban metropolitan areas. According to the respondents, in metropolitan areas similarity vote with parents is lower than in suburban areas, respectively similarity vote is 32% with mother and 39% with father. However, despite the differences parents impact continue to be high. The difference are illustrate on Table no.1

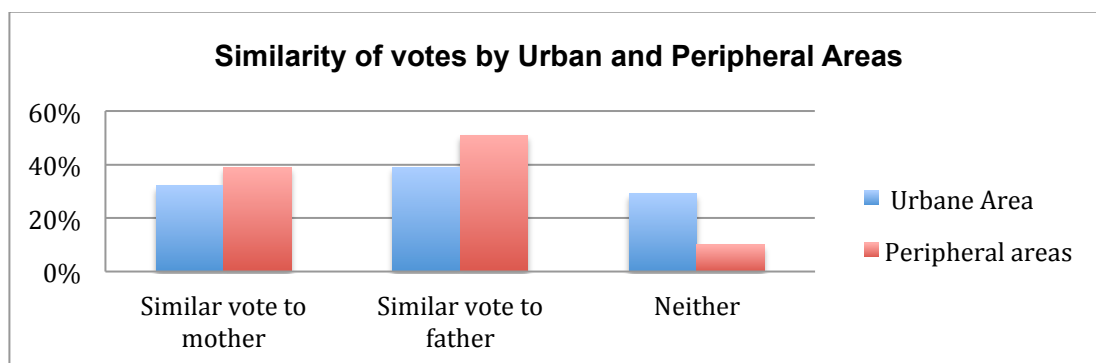


Table No.1 Similarity votes by area, Urban vs Peripheral Ares

In terms of peer influence, again there is a difference between respondents who live in the metropolis and those that reside in peripheral urban areas. The data below show that the vote similarity with friends whether it is at low levels compared to the parents tends to be higher in metropolitan areas, 56%, versus respondents coming from peripheral urban areas, respectively 37%. Take a look to Table No. 2:

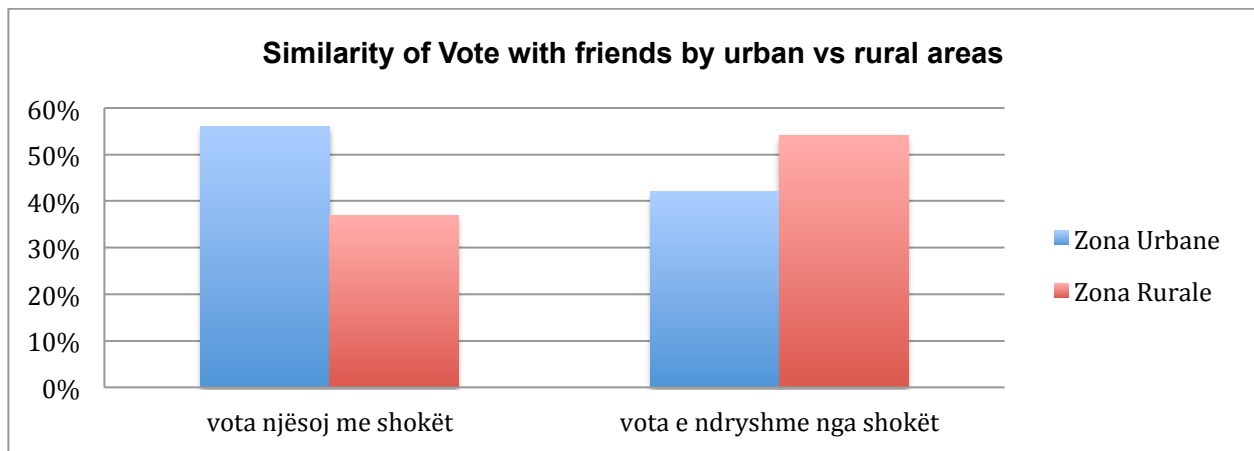


Table No.2 Vote similarity with friends by area

CONCLUSION

This study was focused on the features that influence the shaping of the first political perceptions to first Albanian voters. Initially was analyzed the family institution and more specifically parent-child role in creating political beliefs to adolescent, as the family is considered by many sociologists (Durkheim, Parson, Simmel, Habermas, Tonnies, etc.) as the most important institution in the socialization process.

Based on the processing and analysis of data from the field reached the conclusion that the Albanian student as first-voters, affected more in rural areas by parent-child relation, while in urban areas plays an important role the group, so friends. However, the influence of family members remains present and have a huge role. According to these findings, Albanian family continues to be very important in the political beliefs conveying to their children and why it has undergone several structure changes, as a result of migration or internal migration, diversity of information, increasing economic level etc.

In conclusion, the results of this study showed that the family continues to play an important role in shaping political persuasions to Albanian student as a first voters, mainly in the rural areas and less in urban areas, but at the same time, we should not deny the online social networks role, while in urban areas, the role of the family has waned a bit, given that social groups and online social networks, in this context play a significant role, while in rural areas the rate of use is relatively low.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

AUTHORS' CONTRIBUTIONS

Author Adela Danaj, designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author Roland Lami, managed the analyses of the study and managed the literature searches. Both authors read and approved the final manuscript.

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Effects of Cognitive Restructuring Technique and Self-Efficacy Training on Farming Anxiety of Farmers in Ibihiadan Emu Farming Community Edo State Nigeria

Okoiye Ojaga Emmanuel PhD

Department of Educational Psychology/G&C
Alvan Ikoku Federal College of Education Owerri Imo State Nigeria

Ukah Petronilla Ngozi PhD

Department of Educational Psychology/G&C
Alvan Ikoku Federal College of Education Owerri Imo State Nigeria

Nwoga Anayochi .N

Department of Educational Psychology/G&C
Alvan Ikoku Federal College of Education Owerri Imo State Nigeria

ABSTRACT

This study investigated the effects of cognitive restructuring and self-efficacy training on farming anxiety of farmers in Ibihiadan Emu Farming Community Edo State Nigeria. The study adopted pre-test-post-test, control group experimental design with a 3x2x2 factorial matrix. Purposive sampling technique was used to select sixty farmers and the three villages that constitute Ibihiadan Emu Farming Community. The participants were randomly assigned to groups. Participants in the two treatment groups were exposed to eight weeks of cognitive restructuring technique and self-efficacy training. One instrument was used: Farmers anxiety scale (FAS) ($\alpha = 0.82$). Four hypotheses were tested at 0.05 level of significance. Data were analysed using Analysis of Covariance. There was a significant main effect of treatment on farming anxiety scores of farmers $F(2,58)=7.262$, $P<0.05$. Also, there was significant main effect of age on farming anxiety scores of farmers exposed to treatments $F(1,59)=12.075$, $P<0.05$. However, there was no significant main effect of gender on farming anxiety scores of farmers exposed to treatment $F(1,59)=4.403$, $P>0.05$. Furthermore, there was no significant interaction effect of treatment, age and gender on farming anxiety scores of farmers $F(3,57)=0.409$, $P>0.05$. Cognitive restructuring technique and self-efficacy training were effective in reducing farming anxiety among farmers. The government should re-orientate farmers on how to interpret weather as to adopt good timing strategy for planting. Also, psychological intervention programmes should be put in place to help farmers overcome their state of maladjustment due to negative farming experience.

Key words: Anxiety, Cognitive Restructuring Technique, Self-Efficacy Training, Farmer, Community and Nigeria.

INTRODUCTION

Nigerian farming communities sometimes experience unpredictable and disastrous climatic weather condition(s) that make them apprehensive, agitated and uncomfortable. This development more often than not impacts negatively on their well-being as they are prone to

be anxious and afraid of the unknown. The Ibhiadan Emu farming community of Edo State Nigeria are known for their prowess in yam, cassava, rubber, palm-oil, maize, plantain and pawpaw farming. Though, this community is in the South-South geo-political zone and in the rain forest, expected to be privileged to experience favourable weather condition. However, of late as experienced in other parts of the world due to global climate change, the Ibhiadan Emu farming community has consistently experienced unfavourable hot and dry weather condition for the past ten years. This consistency has made farmers to always express high level of farming anxiety at the beginning of each farming season.

This is consistent with Anselm and Taofeeq (2010) assertion of the fact that climate change is one of the most serious environmental threats facing mankind worldwide. It affects agriculture in several ways, including its direct impact on food production and available evidence shows that this phenomenon most adversely effects countries in Africa, due to their low level of coping capabilities; for which Nigeria is one (Nwafor 2007; Jagtap 2007). Therefore, due to unpredictability of the climatic weather condition, which results in poor and unpredictable yields, farmers (who constitute the bulk of the poor in Africa), face prospects of tragic crop harvest, reduced agricultural productivity, increased hunger, malnutrition and diseases (Zoellick 2009). These occurrence causes high level of distress and anxiety among farmers.

Farming anxiety causes helplessness in the wake of uncertainty, fear and apprehension. In support of this assertion is Okoiye and Falaye (2011) report of the fact that the feeling of anxiety can be potentially serious on the well-being of individuals when it leads to high levels of distress in otherwise capable and enterprising people. They further posit that anxiety serves as stress, tension and strain that interfere with the proper functioning of an individual's body and mind considering the fact that it is accompanied by feeling of helplessness because the anxious person feels blocked and unable to find a solution to his problem. This implies that some farmers in Ibhiadan Emu farming community due to farming anxiety could experience strain and stress that might impair their cognitive and farming intelligence when it comes to seeking solution to their farming task. This basically characterizes the challenges faced in the past ten years by farmers in Ibhiadan Emu farming community. In view of this context, this study investigated cognitive restructuring and self-efficacy training on farming anxiety of farmers in Ibhiadan Emu farming community Edo State Nigeria; while considering the moderating influence of age and gender.

LITERATURE REVIEW

Feeling anxious or nervous is a common emotion for people of all ages and a normal reaction to uncertainty. Anxiety is a common illness among older adults, affecting as many as 10-20 percent of the older population, though it is often undiagnosed. Among adults, anxiety is the most common mental health problem for women and the second most common for men, after substance abuse. The few longitudinal studies that have been carried out in older adults with anxiety suggest that they tend to be persistent in this age group (Schuurmans, Comijs & Beekman, 2005). Anxious older adults in epidemiological and treatment-seeking samples retrospectively report an average duration of 20 years or more, at least in the case of generalised anxiety disorder (Lenze, Mulsant & Mohlman, 2005). According to Arem (2009) anxiety is an emotional, mental and physical act related to thinking and problem-solving process and result from uncomfortable past experiences. However, behaviourist skilled in treatment could help farmers expressing farming anxiety to correctly identify their feelings of anxiety and learn how to manage them through thought control, relaxation exercises and sometimes through relearning how not to respond to uncertainty with fear that has been acquired in the presence of a threat.

Interestingly, Brown, Ramsey, Kahler, Palm, Monti, Abrams, Dubreuil, Gordon and Miller (2011) reported significant benefit in the use of cognitive restructuring technique on anxiety across two trials. They observed that cognitive restructuring was more effective; relative to a relaxation control. Furthermore, cognitive restructuring technique has been demonstrated to be an effective treatment for anxiety (Rapee, Abbott, Baillie & Gaston, 2007). Some of the effective cognitive restructuring technique interventions are based on Rapee and Heimberg's (1997) cognitive model for the maintenance of anxiety disorder. The model proposes that individuals with anxiety disorder experience distortions and biases in the processing of evaluative information which lead to increased anxiety and help to maintain mental and physiological maladjustment. The model emphasises the importance of cognitive restructuring and objective feedback of task performance as well as instruction and feedback regarding avoidance behaviours when exposure is undertaken.

As cited in Okoiye, Ikpeazu and Ohizu (2013); Bandura (1997) posited that the basic premise of self-efficacy theory is that people's belief in their capabilities to produce desired effects by their own actions is the most important determinants of the behaviour people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges. Self-efficacy theory also maintains that these efficacy beliefs play a crucial role in psychological adjustment, psychological problems, physical health, as well as professionally guided and self-guided behavioural change strategies. Thus, this implies that self-efficacy could be attained from gradual acquisition of complex cognitive, social, linguistic and/or physical skills through experience as with the daily farming activity of farmers. Farming engagement in Nigeria rural setting is activity tight and accompany with compounding mental and physical experience that is vicarious in nature (Bandura, 1997).

Therefore, the daily farming engagement of rural farmers through manual labour, affect their task effort, persistence, expressed interest, and their level of goal difficulty selected for performance. Individuals appear to evaluate information about their abilities and then regulate their choices and efforts accordingly. The strength of their conviction in their own effectiveness is likely to determine their desire to cope with a given situation (Torkzadeh, Chang & Demirhan, 2006). However, farmers with high efficacy expectations have a greater chance of success in a given task. Self-efficacy is a dynamic construct that changes as new information and experiences are acquired. It is generally described as having three components: magnitude—the levels of task difficulty that people believe they can attain; strength—their conviction about its magnitude; and generality—the degree to which the expectation is generalized across situations (Torkzadeh et al., 2006).

Statement of the Problem

The experience of global climatic change is a worrisome and frustrating phenomenon in the consciousness of farmers globally and Nigerian farmers are no exception. Climatic change as experienced in most part of Nigeria; with the countries poor coping capabilities pose serious threat to the environment and farming communities. In several ways it affects agriculture with it compounding direct impact on food production. This is evident with most Nigerian agrarian society which has witness unpredictable climatic weather condition, which results in poor and unpredictable yields. Thus, farmers face prospects of tragic crop harvest and reduced agricultural productivity, increased hunger, malnutrition, diseases and state of undefined helplessness. These occurrence causes high level of distress and anxiety among farmers. Therefore, this study through a quasi-experimental design determined the effects of cognitive restructuring technique and self-efficacy training on farming anxiety of farmers in Ibihiadan Emu Farming Community Edo State Nigeria.

Theoretical Framework of the Study

The study is anchored on the theory of reasoned action (TRA) proposed by Ajzen and Fishbein (1980). This theory provides a model that has potential benefits for predicting the intention to perform a behaviour based on an individual's attitudinal and normative beliefs. The components of TRA are three general constructs: behavioural intention (BI), attitude (A), and subjective norm (SN). TRA suggests that a person's behavioural intention depends on the person's attitude about the behaviour and subjective norms ($BI = A + SN$). If a person intends to do behaviour then it is likely that the person will do it. Behavioural intention measures a person's relative strength of intention to perform behaviour. Attitude consists of beliefs about the consequences of performing the behaviour multiplied by his or her evaluation of these consequences (Fishbein & Ajzen, 1975). Subjective norm is seen as a combination of perceived expectations from relevant individuals or groups along with intentions to comply with these expectations (Fishbein & Ajzen, 1975). Furthermore, Fishbein and Ajzen suggest, however, that attitudes and norms are not weighted equally in predicting behaviour. "Indeed, depending on the individual and the situation, these factors might be very different effects on behavioural intention; thus a weight is associated with each of these factors in the predictive formula of the theory.

The Purpose of the Study

This study is designed to apply cognitive restructuring and self-efficacy training on farming anxiety of farmers in Ibihiadan Emu Farming Community Edo State Nigeria.

Research Hypotheses

In this study the following hypotheses were tested at 0.05 level of significance:

- There is no significant main effect of treatment on farming anxiety of farmers
- There is no significant main effect of age on farming anxiety of farmers
- There is no significant main effect of gender on farming anxiety of farmers
- There is no significant interaction effect of treatment, gender and age on farming anxiety of farmers

METHODOLOGY

Research Design

The study adopted a pre-test, post-test control group quasi experimental design with 3x2x2 factorial matrix. The design is made of three rows representing the two treatment techniques, cognitive restructuring technique and self-efficacy training and the Control Group (non-treatment group). There is also a column denoting gender (male and female) participants and age (younger farmer and older farmer) as shown in table 1 on next page.

Population

The population for this study consists of all farmers in Ibihiadan Emu Community in Edo State Nigeria.

Sample and Sampling Techniques

The sample for the study comprised of sixty purposively selected rural farmers (male and female) that has consistently experienced poor harvest due to poor climatic weather condition for the past three years.

Instrument

Farming Anxiety was measured with the Farmers anxiety scale (FAS) by Morey (1991). The total scale consists of 24 items rated on a 4-point scale ("false, not at all true" to "very true"). Higher scores indicate higher anxiety levels. Raw scores for subscales and the total scale are transformed to T-scores (with a mean of 50 and standard deviation of 10).The FAS Anxiety

scale has been found to have adequate internal consistency reliability (.80-.90), test-retest reliability (.85-.88), and construct validity among general, farm worker, African and Mexican-American samples. The revalidation through test-re-test produced a Cronbach's alpha of 0.82 for the present study.

TABLE 1: A 3x2x2 Factorial Matrix Quasi-Experimental Design on Farming Anxiety of Farmers

Treatment	Gender			
	Male	Female		
	Older Farmer	Younger Farmer	Older Farmer	Younger Farmer
A1 Cognitive Restructuring Technique	A1 B1n=7	A1 C1n=5	A1 B2n=5	A1C2n=3
A2 Self-Efficacy Training	A2 B1n=8	A2 C1n=3	A2 B2n=6	A2 C2n=3
A3 Control Group	A3 B1n=7	A3 C1n=2	A3 B2n=7	A3 C2n=4

Procedure

The researchers got permission to carry out this research from the village community head. The village head and farmers were informed of the purpose for the study and their consent attained. Two villages were used as the treatment groups while one village served as the control group. The treatment groups were trained while the control group members were engaged with their normal farm work. The training was conducted in the evenings 4-5pm Tuesdays and Thursdays for eight weeks. Thus, the researcher conducted training sessions with the two experimental groups for a period of 8 weeks at an hour each.

Control of Extraneous Variables

In controlling extraneous variables that possibly could affect the results of the study, the study involved several stages of randomization of treatment to the experimental group. Also, the Rosenthal effect was controlled by keeping the control group busy with their usual daily farm routine during the experimental sessions. Via this measure it is hoped that the contaminations which are beyond the reach of the design and other procedures of the research was taken care of by using ANCOVA statistical tool for analysis.

Method of Data analysis

ANCOVA (Analysis of Covariance) was used as the statistical tool for the study. Analysis of Covariance (ANCOVA) was used to compare the differential effectiveness of the treatments.

Summary of Treatment Package

Experimental Group One: Cognitive Restructuring Technique

Session One: General orientation and administration of instrument to obtain pre-test scores.

Session Two: Identification of psychological and emotional distraction

Session Three: How to overcome unrealistic beliefs

Session Four: How to plan for successful farming season

Session Five: How to overcome farming anxiety

Session Six: Behaviour modification

Session Seven: Self-Confidence

Session Eight: Revision of all activities in the previous session and administration of instrument for

post treatment measures.

Experimental Group Two: Self-Efficacy Training

Session One: Orientation and Administration of Pre-test

Session Two: Need for good farming focus

Session Three: How to plan for successful farming season

Session Four: How to overcome farming anxiety

Session Five: Goal setting

Session Six: How to overcome unrealistic beliefs

Session Seven: Behaviour modification

Session Eight: Revision of all activities in the previous session and administration of instrument for post treatment measures.

RESULTS

Hypothesis One

Hypothesis One states that there is no significant main effect of treatment on farming anxiety of farmers. To test this hypothesis, ANCOVA was adopted to analyze the post-test farming anxiety scores of farmers using the pre-test scores as covariates to ascertain if the post-experimental differences are statistically significant. The summaries of the analysis are presented in Table 2 below:

Table 2: Analysis of Covariance (ANCOVA) of Pre-post Test Interactive Effects of farming anxiety scores of farmers in the Treatment Groups, Age and Gender
Dependent Variable: Farming Anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig	Eta Squared
Corrected Model	2600.647 ^a	11	236.422	4.334	.000	.498
Intercept	62425.209	1	62425.209	1144.4	.000	.839
TRTGROUP	792.260	2	396.130	7.262	.003*	.152
AGE	658.685	1	658.685	12.075	.001**	.126
GENDER	240.180	1	240.180	4.403	.241	.046
TRTGROUP+ AGE	2208.430	2	1104.215	20.243	.000**	.432
TRTGROUP+GENDER	6.200	2	3.100	.056	.860	.001
AGE+GENDER	308.522	1	305.522	5.601	.376	.060
TRTGROUP+AGE+GENDER	44.612	2	22.306	.409	.801	.009
Error	2618.287	48	54.548			
Total	74363.032	60				
Corrected Total	5218.934	59				

The results presented in Table 2 shows that there was significant main effect of treatments on the farming anxiety scores of farmers $F_{(2,58)} = 7.262$, $P < 0.05$. Premised on this, the null hypothesis is rejected. It is therefore concluded that there was significant main effect of treatment on the farming anxiety of farmers. This implies that following the treatment, expressed farming anxiety among farmers was reduced.

Hypothesis Two: There is no significant main effect of age on farming anxiety of farmers. The result of the analysis as presented in Table 2, indicates that there was significant main effect of age on farming anxiety of farmers exposed to treatments $F_{(1,59)} = 12.075$, $P < 0.05$. The hypothesis is therefore rejected. This implies that age had moderating impact on the treatment programme. Hence it could mean that the age of farmers influenced their attitude and response to the treatment programme.

Hypothesis Three: There is no significant main effect of gender on farming anxiety of farmers. The result of the analysis as presented in Table 2 indicates that there was no significant main effect of gender on farming anxiety of farmers exposed to treatment $F_{(1,59)} = 4.403$, $P > 0.05$. Thus, the null hypothesis is accepted. It is therefore concluded that the issue of gender did not influence the result of the study.

Hypothesis Four: There is no significant interaction effect of treatment, age and gender on farming anxiety of farmers. Table 2 reveals that there was no significant interaction effect of treatment, age and gender on farming anxiety of farmers exposed to treatment $F_{(3,57)} = 0.409$, $P > 0.05$). The null hypothesis is therefore accepted. This implies that the result of the study was not influenced by the interactive interplay of treatment, age and gender.

DISCUSSION OF RESULT

Hypothesis One

There is no significant main effect of treatment on farming anxiety of farmers. The result of the findings revealed that there was significant main effect of treatment in the post-test farming anxiety scores of farmers expressing farming anxiety in the experimental and control groups. Therefore, the hypothesis is rejected. This indicates that the treatment programme was effective in reducing the incessant occurrence of farming anxiety among farmers that participated in the treatment programme. However, the continual expression of farming anxiety by participants in the control group could imply the fact that they were not exposed to any treatment package.

The result of this study indicates that if farmer expressing farming anxiety due to their recurring negative experience of poor harvest based on harsh climatic weather condition are exposed to intervention as this, they could develop basic psychological and emotional intelligent skills that will help them overcome their anxiety over uncertainties and farming task challenges. Therefore, the effectiveness of the treatment could be explained in terms of the effectiveness of each of the training programme in the reduction of expressed farming anxiety among farmers. Supporting this finding is the report of Brown, Ramsey, Kahler, Palm, Monti, Abrams, Dubreuil, Gordon and Miller (2011) stating significant benefit in the use of cognitive restructuring technique on anxiety across two trials. They observed that cognitive restructuring was more effective; relative to a relaxation control. Furthermore, cognitive restructuring technique has been demonstrated to be an effective treatment for anxiety (Rapee, Abbott, Baillie & Gaston, 2007). Also, as cited in Okoiye, Ikpeazu and Ohizu (2013); Bandura (1997) posited that the basic premise of self-efficacy theory is that people's belief in their capabilities to produce desired effects by their own actions is the most important determinants of the behaviour people choose to engage in and how much they persevere in their efforts in the face of obstacles and challenges. Self-efficacy theory also maintains that these efficacy beliefs play a crucial role in psychological adjustment, psychological problems, physical health, as well as professionally guided and self-guided behavioural change strategies. Thus, this implies that self-efficacy could be attained from gradual acquisition of complex

cognitive, social, linguistic and/or physical skills through experience as with the daily farming activity of farmers.

Hypothesis Two

There is no significant main effect of age on farming anxiety of farmers. The result of the study revealed that there was significant main effect of age on farming anxiety of farmers that participated in the intervention. Therefore, the hypothesis is rejected. This implies that the age of farmers moderately influenced the study. This could be further explained on the context of the farmers desire to modify their behaviour for good and based on the fact that they desire to overcome their anxiety challenge(s) and strife for a better harvest. This finding is consistent with the expressive fact that anxiety is a common illness among older adults, affecting as many as 10-20 percent of the older population, though it is often undiagnosed. Among adults, anxiety is the most common mental health problem for women and the second most common for men, after substance abuse. Longitudinal studies that have been carried out in older adults with anxiety suggest that they tend to be persistent in this age group (Schuurmans J., Comijs & Beekman, 2005). Anxious older adults in epidemiological and treatment-seeking samples retrospectively report an average duration of 20 years or more, at least in the case of generalised anxiety disorder (Lenze, Mulsant & Mohlman, 2005). Furthermore, considering the magnitude of responsibility on the shoulder of older farmers, they tend to be more anxious than younger farmers who more or less care only for themselves and with less responsibilities. However, in realising the negative consequence of anxiety on their well-being through the intervention programme, older farmers adjusted faster to the reality of their situation(s) and were able to reduce their level of anxiety.

Hypothesis Three

There is no significant main effect of gender on farming anxiety of farmers. The result reveals that there is no significant main effect of gender on farming anxiety of farmers exposed to treatment. Thus, null hypothesis is accepted. The reason for this development could be that farmers expressing farming anxiety either they are male or female experience similar weather climatic challenges and also expresses similar behavioural disaffection. This implies that in responding to the impact of harsh climatic condition on their farm proceeds; the influence of gender identity appears to be insignificant. Therefore, when farmers experience poor harvest, they become frustrated and behave in similar manner. Thus, it is of note that either the farmer is a man or woman, farming anxiety causes helplessness in the wake of uncertainty, fear and apprehension. In support of this assertion is Okoie and Falaye (2011) report of the fact that the feeling of anxiety can be potentially serious on the well-being of individuals when it leads to high levels of distress in otherwise capable and enterprising people. They further posit that anxiety serves as stress, tension and strain that interfere with the proper functioning of an individual's body and mind considering the fact that it is accompanied by feeling of helplessness because the anxious person feels blocked and unable to find a solution to his problem. This implies that some farmers in Ibhiadan Emu farming community due to farming anxiety could experience strain and stress that might impair their cognitive and farming intelligence when it comes to seeking solution to their farming task. This basically characterizes the challenges faced in the past ten years by farmers in Ibhiadan Emu farming community.

Hypothesis Four

There is no significant interaction effect of treatment, age and gender on farming anxiety of farmers. The result of the study reveals that there was no significant interaction effect of treatment, age and gender on farming anxiety of farmers. Therefore, the null hypothesis is accepted. The reason for this development could be aligned to the fact that possibly, the

content of the treatment programme made farmers realized the need to change from the state of maladjustment to adjustment after appreciating the fact that climatic change is a global phenomenon and not peculiar to their community alone. This is consistent with Anselm and Taofeeq (2010) assertion of the fact that climate change is one of the most serious environmental threats facing mankind worldwide. It affects agriculture in several ways, including its direct impact on food production and available evidence shows that this phenomenon most adversely effects countries in Africa, due to their low level of coping capabilities; for which Nigeria is one (Nwafor 2007; Jagtap 2007). Therefore, due to unpredictability of the climatic weather condition, which results in poor and unpredictable yields, farmers (who constitute the bulk of the poor in Africa), face prospects of tragic crop failures reduced agricultural productivity, increased hunger, malnutrition and diseases (Zoellick 2009). These occurrence causes high level of distress and anxiety among farmers.

IMPLICATIONS OF THE STUDY

This study has several implications which include among others the fact that the study has proved that cognitive restructuring technique and self-efficacy training is effective intervention techniques in reduction of farming anxiety among farmers. Therefore, since the two therapeutic techniques applied were effective, the skills learnt would enable farmers expressing farming anxiety develop the required confidence that would enable them succeed in finding solution to their challenging farming task. Furthermore, the study revealed the fact that farming anxiety among rural farmers can be reduced through psychological intervention programmes.

RECOMMENDATIONS OF THE STUDY

The government should endeavour to give rural farmers adequate support in the likes of subsidising the price of fertilizer and the availability of tractor for mechanise farming. The government should re-orientate farmers on how to interpret weather as to adopt good timing strategy for planting. Psychological intervention programmes should be put in place to help farmers overcome their state of maladjustment due to negative farming experience.

CONCLUSION

The study revealed that learnt behaviour such as anxiety can be unlearnt through behaviour modification. This implies that farming anxiety is a behavioural challenge that can be managed and overcome by farmers experiencing farming distress.

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